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<th>English/Pharmaceutics</th>
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| 1 | During drying process in fluidized bed dryer, the direction of air flow through a bed of solids is:  
   A. Upward at a velocity greater than the settling velocity of the particles  
   B. Upward at a velocity lower than the settling velocity of the particles  
   C. Downward at a velocity lower than the settling velocity of the particles  
   D. Upward at a velocity equal to the settling velocity of the particles |
| 2 | The product from spray drying technique is in the form of:  
   A. Smooth hollow spheres  
   B. Irregular hollow spheres  
   C. Smooth non porous spheres  
   D. Irregular non porous spheres |
| 3 | Hammer mill is used as:  
   A. Grinder for rubbery materials  
   B. Homogenizer for preparing the emulsion  
   C. Mixer for dry powders  
   D. Grinder for very hard crude materials as Nux Vomica |
4. The correct order of sugar coating steps for tablets is
   A. Sub coating, water proofing, smoothing, coloring, polishing
   B. Water proofing, sub coating, smoothing, coloring, polishing
   C. Smoothing, sub coating, water proofing, coloring, polishing
   D. Water proofing, coloring, smoothing, sub coating, polishing

5. Which of the following drug is expected to have the highest water solubility:
   A. Sulphadiazine (mp = 253 °C)
   B. Sulphapyridine (mp = 192 °C)
   C. Sulphathiazole (mp = 174 °C)
   D. Sulphamerazine (mp = 236 °C)

6. Tween 80 and sodium lauryl sulphate shared mechanism of emulsion formation is:
   A. Reduction of the interfacial tension
   B. Repulsion between the adjacent droplets
   C. Formation of coherent multimolecular layer around the droplets
   D. Both mechanisms in a and b
7 Formation of gel differs in natural gum and methylcellulose as follows:

   A. Natural gum forms gel on heating and methylcellulose forms gel on cooling
   B. Natural gum forms gel on cooling and methylcellulose forms gel on heating
   C. Natural gum forms gel upon addition of anions and methylcellulose forms gel on heating
   D. Natural gum forms gel upon addition of cations and methylcellulose forms gel on heating

8 An FDA approved cationic polymer is:

   A. Carbophil
   B. Chitosan
   C. Carboxymethyl cellulose
   D. Sodium carboxymethyl cellulose

9 All of the following are hydrophobic ointment bases except:

   A. Lanolin
   B. Cetyl alcohol
   C. Polyethylene glycol
   D. Mineral oil
### Problem 10
High-fat meal may increase the bioavailability of griseofulvin through:

- A. Delay in the gastric emptying rate
- B. Increase in the gastric emptying rate
- C. Increase in the bile secretion
- D. Inhibition of efflux pump (P-gp)

### Problem 11
Solid dispersion is defined as:

- A. A molecular dispersion of the drug in a solvent
- B. A homogenous distribution of drug particles in a solvent
- C. A molecular dispersion of the drug in a solid matrix
- D. A homogenous distribution of drug particles in a solid matrix

### Problem 12
What is the concentration of a 2% (w/v) solution when expressed as mg.mL⁻¹?

- A. 200
- B. 2
- C. 0.2
- D. 20
<p>| | |</p>
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<tbody>
<tr>
<td><strong>13</strong></td>
<td>In the formulation of suspensions, which type of drugs is selected?</td>
</tr>
</tbody>
</table>
|   | A. Hydrophilic  
|   | B. Hydrophobic  
|   | C. Both  
|   | D. None |
| **14** | Which of the following is a water-soluble lubricant? |
|   | A. Stearic acid  
|   | B. Mineral oil  
|   | C. PEG  
|   | D. Magnesium stearate |
| **15** | Flow rate of granules from the hopper can be improved by adding: |
|   | A. Disintegrant  
|   | B. Glidant  
|   | C. Binder  
<p>|   | D. Lubricant |</p>
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</table>
| 16 | Cellulose acetate phthalate dissolves at pH:  
   | A. Above 6  
   | B. 4  
   | C. Below 6  
   | D. 2 |
| 17 | Which of the following is/are used to increase the viscosity of a liquid?  
   | A. Bentonite  
   | B. Methylcellulose  
   | C. Sodium carboxymethylcellulose  
   | D. All of the above |
| 18 | Which of the following statements is wrong?  
   | A. Syrups are aqueous preparations of sweet taste and viscous consistency  
   | B. Above 45% concentration, a sucrose solution is called syrup  
   | C. Mucoadhesive oral preparations have only local action  
   | D. Parenteral preparations are always sterile |
19. The HLB system was developed by:
   A. Griffin
   B. Stock's
   C. Dalla Valle
   D. None of the above

20. For a highly protein-bound drug, the body fluid used to monitor its concentration should be:
   A. Serum
   B. Saliva
   C. Urine
   D. Plasma

21. All these physiologic changes may occur in elderly patients **EXCEPT**:
   A. A decrease in GFR
   B. A decrease in gastric pH
   C. A decrease in serum albumin
   D. A decrease in liver size
What would be the dose of a drug to be administered to achieve a target concentration of 10 μg/L if the volume of distribution is 350 liters?

A. 350 μg  
B. 350 mg  
C. 3.5 mg  
D. 35 μg

Phenytoin is characterized by all of the following **EXCEPT**:  
A. It is unbound to albumin  
B. It is mainly metabolized by CYP2C9  
C. Its clearance is concentration-dependent  
D. It induces a concentration dependent side effects

Biopharmaceutical classification system takes into account the following properties of a drug **EXCEPT**:

A. Solubility  
B. Dissolution  
C. Permeability  
D. Therapeutic index
<p>| | |</p>
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</table>
| **25** | A metastable polymorphic form of a drug:  
A. Will tend to transform to the stable form  
B. Is the most stable form  
C. Has a higher melting point than the stable form  
D. Has a higher solubility than the amorphous form |
| **26** | A parameter used to measure wettability of powder is:  
A. Contact angle  
B. Angle of repose  
C. Carr’s index  
D. Laser diffraction |
| **27** | Migration of the components of a plastic container to the formulation:  
A. Sorption  
B. Permeation  
C. Leaching  
D. Softening |
<table>
<thead>
<tr>
<th>28</th>
<th>Which of the following excipients may interact with cetrimide:</th>
</tr>
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<tbody>
<tr>
<td>A.</td>
<td>Tween</td>
</tr>
<tr>
<td>B.</td>
<td>Liquid paraffin</td>
</tr>
<tr>
<td>C.</td>
<td>Sodium lauryl sulphate</td>
</tr>
<tr>
<td>D.</td>
<td>Bees wax</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>29</th>
<th>Phenobarbital (weakly acidic) has a pka = 7.41. which of the following pH is the best pH for a maximum solubility?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>pH = 5.41</td>
</tr>
<tr>
<td>B.</td>
<td>pH = 2</td>
</tr>
<tr>
<td>C.</td>
<td>pH = 7.41</td>
</tr>
<tr>
<td>D.</td>
<td>pH = 9.41</td>
</tr>
</tbody>
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<tr>
<th>30</th>
<th>Solubility of a gas in liquid is expressed in term of:</th>
</tr>
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<tbody>
<tr>
<td>A.</td>
<td>Stoke’s law</td>
</tr>
<tr>
<td>B.</td>
<td>Henry’s law</td>
</tr>
<tr>
<td>C.</td>
<td>Van’t Hoff equation</td>
</tr>
<tr>
<td>D.</td>
<td>Ficks’ law</td>
</tr>
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</table>
31. All of the following are characteristics of molecular dispersion except:
   A. Visible in electron microscope
   B. Pass through ultra-filter
   C. Pass through semipermeable membrane
   D. Undergo rapid diffusion

32. Hardness of conventional tablets should not exceed:
   A. 8 Kg
   B. 5Kg
   C. 10 kg
   D. 3 kg

33. Suppositories with rough surface may be due to:
   A. Non lubrication of the mold
   B. Non overfilling of the mold
   C. Overmelting of base
   D. Rapid refrigeration of suppositories
The time for total drug elimination from the body is approximately:

A. 3 half lives
B. 5 half lives
C. 7 half lives
D. 4 half lives
PART 1 (Pharmaceutics - MCQ)

**Question 1 [1.00 pt(s)]**

Routes of administration that avoid "first-pass" hepatic effect do not include:

- the sublingual route
- the oral route
- the transdermal route
- the inhalation route

**Question 2 [1.00 pt(s)]

“Keep the pharmaceutical product in a cool and dry place” means: Not More than

- 15° C /55% RH
- 30° C /55% RH
- 15° C /35% RH
- 30° C /35% RH

**Question 3 [1.00 pt(s)]

The use of Calcium sulfate instead of lactose as a tablet diluent can ...... drug absorption.

- Enhance
- Retard
- Prevent
- Facilitate

**Question 4 [1.00 pt(s)]

Which of the following statement is correct concerning transdermal patches?

- They are used to give a local effect
- They need patient training before use
- They are associated with bad patient compliance
- They may induce hypersensitivity skin reactions

**Question 5 [1.00 pt(s)]
Vd of a drug can be used to:

- estimate the elimination rate constant
- determine the biological half-life
- calculate a reasonable loading dose
- determine the best dosing interval

**Question 6** [1.00 pt(s)]

Concerning instantly disintegrating or dissolving tablets:

- They are less friable than normal tablets
- Their disintegration time is longer than 2 minutes
- They are designed to mask taste
- They can be prepared by direct compression

**Question 7** [1.00 pt(s)]

Sugar-coating of tablets:

- Retains the contour of the original tablet
- Increases weight substantially by 30 to 50%
- Allows multi-particulate coating
- Requires only a single step to apply

**Question 8** [1.00 pt(s)]

The main difference between soft and hard gelatin capsules composition is:

- The gelatin used in manufacturing soft capsules has low bloom strength
- Hard capsules are manufactured and filled in one operation
- Shells of hard gelatin capsules are highly plasticized
- Hard gelatin capsules can be used to attain complete absorption

**Question 9** [1.00 pt(s)]

The release of a drug from a dissolution controlled system is governed by:

- Fick’s law
- Higuchi law
- Noyes-Whitney law
- Degradation of the membrane

**Question 10** [1.00 pt(s)]

Water/Oil emulsion base is:

- Hydrophilic
- Non-greasy
- Poorly washable
- Vehicle for hydrolysable drugs

**Question 11** [1.00 pt(s)]
After taking a modified release tablet, the patient was frustrated since he realized a residual tablet in his feces. What kind of tablet did the patient take:

- Repeat Action Tablet
- Hydrophilic Matrix System
- Inert Plastic Matrix System
- Coated tablet

**Question 12 [1.00 pt(s)]**

All of the following factors will affect the percutaneous absorption, EXCEPT:

- Hydration of the skin
- The drug molecular weight
- The site of application
- Organoleptic properties of the drug

**Question 13 [1.00 pt(s)]**

Which skin layer usually determines drug percutaneous absorption:

- Stratum corneum
- Epidermic cellular layer
- Dermis layer
- Hypodermis layer

**Question 14 [1.00 pt(s)]**

Lanolin is an example of:

- Water Removable Bases
- Absorption Bases
- Water Soluble Bases
- Oleaginous Bases

**Question 15 [1.00 pt(s)]**

Which of the following excipients is considered as a hydrophilic base?

- White Petrolatum.
- Stearyl alcohol.
- Sodium lauryl sulfate.
- Polyethylene glycol

**Question 16 [1.00 pt(s)]**

Which of the following preparation technique requires heating?

- Incorporation
- Fusion
- Levigation
- Roller mill
**Question 17** [1.00 pt(s)]

All of the following compounds have been used as Skin Penetration Enhancer EXCEPT:

- Dimethyl acetamide
- Dimethyl sulfoxide
- Propylparaben
- Propylene glycol

**Question 18** [1.00 pt(s)]

All of the following factors predict favorable transdermal drug absorption for systemic therapy EXCEPT:

- A Full hydration of the stratum corneum
- A high partition coefficient of the drug
- Molecular weight of 100 to 400
- High aqueous solubility of the drug

**Question 19** [1.00 pt(s)]

The most striking difference between creams and pastes is:

- Creams are thicker than pastes
- Pastes are thicker than creams
- Creams are suspensions, whereas pastes are emulsions
- They are both suspensions

**Question 20** [1.00 pt(s)]

Gel applied to the joints for reducing pain in knee joints can be classified as:

- Topical delivery system
- Transdermal delivery system
- Percutaneous absorption system
- Systemic delivery system

**Question 21** [1.00 pt(s)]

All are features of granules EXCEPT

- Good flowability
- Compressibility
- Easily wetted
- Likely to cake or harden by storage

**Question 22** [1.00 pt(s)]

Titanium dioxide is used in hard gelatin capsules to ________

- Make it opaque
- Let patients be able to see inside
Question 23 [1.00 pt(s)]

Hard gelatin capsule shell has _____ percent of moisture

- 13-16%
- 30-40%
- 5-10%
- 13-20%

Question 24 [1.00 pt(s)]

The shells of soft gelatin capsules may be made elastic or plastic like, by the addition of

- Glycerin
- Povidone
- Menthol
- Starch

Question 25 [1.00 pt(s)]

All are examples of lubricants Except:

- Talc
- Magnesium stearate
- Stearic acid
- Lactose

Question 26 [1.00 pt(s)]

All are fillers that add bulkiness to compressed tablets Except:

- Calcium phosphate
- Lactose
- Micro-crystalline cellulose (MCC)
- Acacia

Question 27 [1.00 pt(s)]

All are binders of compressed tablets Except:

- gelatin
- pregelatinized starch
- Calcium phosphate
- Glucose syrup

Question 28 [1.00 pt(s)]

Which of the following improves the flow of granules into the die cavity for compression?
Question 29 [1.00 pt(s)]

Which of the following is the most commonly used tablet lubricant

- Talc
- Magnesium stearate
- Mineral oil
- Glycerine

Question 30 [1.00 pt(s)]

Which of the following procedures have the shortest time for tablet manufacturing?

- Dry granulation
- Wet granulation
- Direct compression
- Lyophilization

Question 31 [1.00 pt(s)]

All of the following are functions of lubricant in a tablet formulation EXCEPT:

- Improving the granulation’s flow
- Reducing granule adhesion onto the dies and punches
- Aiding tablet ejection from the die
- Increasing adhesion of the granules

Question 32 [1.00 pt(s)]

Which of the following is used as a filler in direct compression?

- Spray dried lactose
- Powdered cellulose
- Lactose monohydrate
- Starch

Question 33 [1.00 pt(s)]

The accepted weight loss for a tablet in a friability test is

- Less than 1%
- Less than 1.2%
- Less than 2%
- Less than 3%

Question 34 [1.00 pt(s)]

To aid patients breaking tablets when they have to take only a half or
quarter of the tablet, tablets are

- Scored
- Crushed
- Squared
- Coated

**Question 35 [1.00 pt(s)]**

Which of the following dosage forms are used for localized treatment in the mouth?

- Chewable tablets
- Sublingual tablets
- Lozenges
- Gelatin capsules

**Question 36 [1.00 pt(s)]**

While solving pharmacokinetic questions, one assumes that instantaneous distribution to all body tissues and fluids. Which of the following describes such process?

- One-compartment model
- Physiologic model
- Two-compartment model
- Multi-compartment model

**Question 37 [1.00 pt(s)]**

Which of the following statements is true about the drug's half-life?

- Increases as clearance increases
- Increases as volume of distribution increases
- Related to drug route of elimination
- Determines the loading dose

**Question 38 [1.00 pt(s)]**

Which of the following statement is/are true about the bioequivalence tests?

- The Area Under Curve (AUC) is a relevant measure to assess whether test and reference formulation delivers the same dose.
- AUC is a relevant measure to assess whether test and reference formulation has the same volume of distribution.
- Tmax is a relevant measure to assess whether test and reference formulation has the same rate of absorption.
- Cmax differ between test and reference formulation if both deliver same doses (assume same rate of absorption for both formulations).

**Question 39 [1.00 pt(s)]**

Absolute Bioavailability is the fraction or percentage of administered drug that reaches the systemic circulation via a given route as compared to what route?
Question 40 [1.00 pt(s)]

For a bitter tasted drug the best oral dosage form would be

- Solution
- Chewable tablet
- Effervescent formula
- Lozenges

Question 41 [1.00 pt(s)]

The following parenteral dosage form should have a neutral pH:

- IV
- IM
- Subcutaneous
- Intra-ocular injection

Question 42 [1.00 pt(s)]

The best dosage form for drugs with high first pass metabolism is:

- Capsules
- Suppositories
- Sublingual tablets
- Chewable tablets

Question 43 [1.00 pt(s)]

For drug X, the following oral dosage form would have the fastest onset:

- Compressed tablet
- Hard gelatin capsule
- Solution
- Suspension

Question 44 [1.00 pt(s)]

The sweetened dosage form that contains alcohol is:

- Elixir
- Syrup
- Aromatic water
- Spirit

Question 45 [1.00 pt(s)]

The following solvent is the most widely used in ear drops:
Question 46 [1.00 pt(s)]

Increasing emulsion stability can be achieved by:
- Increasing globule size
- Heating
- Addition of surfactant
- Dilution

Question 47 [1.00 pt(s)]

Solubility of most solids is highly affected by:
- Particle size
- pH
- Rate of agitation
- Exposure to light

Question 48 [1.00 pt(s)]

The equation that describes the rate of diffusion of drugs from solid dosage forms:
- Noyes-Whitney equation
- Henderson-Hasselbalch equation
- Fick’s law
- Stock’s law

Question 49 [1.00 pt(s)]

One of the most disadvantages of cacao butter as a suppository base is:
- The wide interval between solidification and melting temperatures
- Miscibility in body fluid
- Higher content of saturated fatty acid
- Non-irritating effect

Question 50 [1.00 pt(s)]

Which capsule size has the largest capacity?
- 0
- 1
- 5
- 000

Question 51 [1.00 pt(s)]
Spansules are:

- Direct compression tablets
- Multilayered tablets
- Hard gelatin capsules
- Coated beads with different colors

**Question 52 [1.00 pt(s) ]**

Mottling of tablets is due to increasing of:

- Lubricant
- Coating material
- Moisture content
- Drying temperature

**Question 53 [1.00 pt(s) ]**

Lamination of tablets is due to:

- Excessive moisture content of granules
- Excessive tablet hardness
- Excessive entrapped air
- Excessive lubricant

**Question 54 [1.00 pt(s) ]**

Which substance is used to lubricate the mold in case of gelato-glycerin suppository:

- Water
- Paraffin oil
- Stearic acid
- Soap lubricant

**Question 55 [1.00 pt(s) ]**

Surfactants are incorporated in gelatin capsule shell to

- Avoid microbial contamination during manufacturing
- Reduce rigidity of gelatin
- Sterilize capsules at end of manufacturing process
- Enable gelatin solution to take up the shape of the mold

**Question 56 [1.00 pt(s) ]**

A suitable oil for sustained release (long-acting) IM injections is:

- Paraffin oil
- Sesame oil
- Turpentine oil
- Cacao oil
Question 57 [1.00 pt(s)]

A special type of valve in aerosols that delivers a prearranged measured quantity of product each time the valve is evacuated:

- Foam valve
- Powder valve
- Metered valve
- Compressed gas valve

Question 58 [1.00 pt(s)]

Borate buffers can be used:

- Orally
- Rectally
- Topically
- Parenterally

Question 59 [1.00 pt(s)]

Adsorption of a drug on solid surfaces is inversely proportional to:

- Surface area of solids
- Temperature
- Colligative properties
- pH

Question 60 [1.00 pt(s)]

Plant and animal origin colors are not widely used in liquid dosage forms due to:

- Cost
- High toxicity
- Color fading
- Intense color

Question 61 [1.00 pt(s)]

Which HLB range could be optimal to formulate an oil/water emulsion?

- 1-2
- 4-6
- 8-18
- 30-40

Question 62 [1.00 pt(s)]

Vaginal tablets commonly use the following diluent:

- Sucrose
- Cellulose
Lactose
Calcium sulfate

**Question 63** [1.00 pt(s)]

A drug with a Vd of 500 Liters is expected to be:

- Confined to blood plasma
- Highly protein-bound
- Have short half-life
- Distributed to deep tissues

**Question 64** [1.00 pt(s)]

If the Clnon-renal is equal to 2X and CIT to 3X L/hr respectively, the Clrenal would be:

- 6X
- 5X
- X
- 1.5X

**Question 65** [1.00 pt(s)]

In bioequivalence testing, the only source of variability should arise from:

- Tested products
- Volunteers
- Analytical methods
- Food intake

**Question 66** [1.00 pt(s)]

Cross-linking of gelatin in hard gelatin capsules may lead to:

- Enhanced dissolution testing
- Improved gelatin solubility
- Reduced side effects
- Reduced dissolution rate of gelatin

**Question 67** [1.00 pt(s)]

All the following factors can influence drug degradation through hydrolysis except:

- Drug molecular weight
- Drug concentration
- pH
- Drug flow properties

**Question 68** [1.00 pt(s)]

Turbidity of poorly-stored Tween solution may be attributed to:
Oxidation
Span production
Hydrolysis
Polymerization

Question 69 [1.00 pt(s)]

The allowable levels of degradation products for drugs with little information on their toxicity profile is:

- 1 - 2%
- 0.2 - 0.5%
- 2 - 5%
- Not allowed at all

Question 70 [1.00 pt(s)]

Drugs formulated in sugar-coated tablets may suffer from serious bioavailability problems due to:

- Water-proofing
- Oil-sealing
- Increased wetability
- Oil-separation

Question 71 [1.00 pt(s)]

According to the biopharmaceutical classification system (BCS), a drug is considered of low solubility when its highest dose fails to dissolve in:

- 25 ml water
- 50 ml water
- 150 ml water
- 250 ml water

Question 72 [1.00 pt(s)]

When formulating a tablet that contains a polymorphic drug, the main challenge is to .......... the metastable form of the drug.

- Select
- Discard
- Dissolve
- Maintain

Question 73 [1.00 pt(s)]

Gastric emptying rate is very critical for the drug absorption from:

- Soft gelatin capsules
- Hard gelatin capsules
- Direct compressible tablets
- Enteric coated tablets
**Question 74** [1.00 pt(s)]

A critical barrier facing paracellular drug delivery is:

- pH
- Tight junction
- Hydrolytic enzymes
- P-glycoprotein

**Question 75** [1.00 pt(s)]

An abnormal reaction to a normal dose of the drug is termed:

- Idiosyncrasy
- Antagonism
- Synergism
- Tolerance

**Question 76** [1.00 pt(s)]

The following is true regarding 1st order elimination rate constant (Kel) of drugs in the human body:

- Dependent on dose of the drug
- Dependent on route of administration
- Dependent on dosage form
- Independent of dose and route of administration

**Question 77** [1.00 pt(s)]

All the following are pharmacokinetic methods to assess bioavailability except:

- Clinical observation
- Measurement of the Plasma drug concentration
- Measurement of Urinary drug concentration
- Measurement of Saliva drug concentration

**Question 78** [1.00 pt(s)]

For a drug of 23 hr half-life, the expected complete wash-out period would be:

- 1 day
- 3 days
- 4 days
- 6 days

**Question 79** [1.00 pt(s)]

The best type of glass to use in parenteral preparations containers:

- Soda lime glass
- Quartz
Question 80 [1.00 pt(s) ]

One part of a sparingly soluble solid needs a number of solvent parts equal to:

- 1-10
- 10-30
- 30-100
- 100-1000

Question 81 [1.00 pt(s) ]

The following alcohol is expected to have the highest water solubility:

- n-butanol
- n-pentanol
- iso-butanol
- Ethanol

Question 82 [1.00 pt(s) ]

Dissolution rate of solids is inversely proportional to:

- Rate of agitation
- Temperature
- Particle size
- pH

Question 83 [1.00 pt(s) ]

A good suspending agent should have:

- Newtonian flow
- Pseudoplastic flow
- Plastic flow
- Dilatants flow

Question 84 [1.00 pt(s) ]

The most serious problem in suspensions is:

- Sedimentation
- Cake formation
- Flocculation
- pH change

Question 85 [1.00 pt(s) ]

Upon reaching the critical micelle concentration of a surfactant:
Question 86 [1.00 pt(s)]

To improve suspension stability the zeta potential should be:

- Reduced
- Increased
- Reversed
- Unchanged

Question 87 [1.00 pt(s)]

Purification of colloids cannot be done using:

- Simple filtration
- Dialysis
- Electro-dialysis
- Electro-decantation

Question 88 [1.00 pt(s)]

Bees wax is used in ointments as:

- Emollient and stiffening agent
- Antioxidant
- Absorption base
- Absorption base and Emulsifying agent

Question 89 [1.00 pt(s)]

During an emulsion preparation, sodium lauryl sulfate should be added:

- In the aqueous phase
- In the oily phase
- In the final emulsion
- Part in aqueous phase and part in oily phase.

Question 90 [1.00 pt(s)]

Water resistant cream is usually a:

- Vanishing oil/water cream
- Shiny oil/water cream
- Washable oil/water cream
- Non greasy oil/water cream

Question 91 [1.00 pt(s)]

Retinoic acid cream should be applied:
In the morning
In the morning and evening
In the evening
After sunscreens

Question 92 [1.00 pt(s)]

Overmelting of cocoa butter during suppositories preparation leads to:

- Cocoa butter polymorphic transformation
- Cocoa butter decomposition
- Hard suppositories
- Cracked suppositories

Question 93 [1.00 pt(s)]

During the preparation of suppositories, refrigeration is a must for:

- All types of suppository bases
- Polyethylene glycol suppository bases
- Gelatoglycerin suppository bases
- Cocoa butter suppository bases

Question 94 [1.00 pt(s)]

Effervescent granules should consist of the following effervescent base:

- Sodium bicarbonate and sucrose
- Sodium bicarbonate, citric acid and sucrose
- Sodium bicarbonate, sodium hydroxide and sucrose
- Sodium bicarbonate, citric acid, sodium hydroxide and sucrose

Question 95 [1.00 pt(s)]

Solid dispersions consisting of a water soluble carrier and a drug will tend to:

- Improve the dissolution rate of the drug
- Reduce the dissolution rate of the drug
- Improve drug stability
- Give a sustained release effect

Question 96 [1.00 pt(s)]

Pharmacokinetics refers to the relationship of drug

- Dose to drug concentration in plasma
- Concentrations to drug effect
- Dose to drug clearance at the eliminating organs
- Dose to drug effect

Question 97 [1.00 pt(s)]

Which one from the following factors will not affect drug absorption?
Gastric motility
Blood flow
Food intake
Drug elimination half-life

Question 98 [1.00 pt(s)]

How does the glomerular filtration rate (GFR) change after the age of 40?

- Increase 1% each year
- Increases 2% each year
- Decreases 1% each year
- Decreases 2% each year

Question 99 [1.00 pt(s)]

The following table represents data of a:

<table>
<thead>
<tr>
<th>C_0 (M/L)</th>
<th>0.2</th>
<th>0.4</th>
<th>0.6</th>
<th>0.8</th>
<th>1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>T_{1/2} (min.)</td>
<td>100</td>
<td>50</td>
<td>33</td>
<td>25</td>
<td>20</td>
</tr>
</tbody>
</table>

- Zero order reaction
- First order reaction
- Second order reaction
- Pseudo Zero order reaction

Question 100 [1.00 pt(s)]

Which of the following describes minimal effective concentration (MEC)?

- The minimal drug plasma concentration that can be detected
- The minimal drug plasma concentration to enter tissues
- The minimal drug plasma concentration to interact with receptors
- The minimal drug plasma concentration to produce effect

Question 101 [1.00 pt(s)]

Which of the following drug permeation mechanisms uses the Henderson-Hasselbalch equation for the ratio of solubility for the weak acid or weak base?

- Aqueous diffusion
- Lipid diffusion
- Carrier molecules
- Endocytosis and exocytosis

Question 102 [1.00 pt(s)]

Which of the following drug permeation mechanisms is used for peptides, amino acids, and other large or insoluble molecules?

- Aqueous diffusion
- Lipid diffusion
- Carrier molecules
- Endocytosis and exocytosis
Question 103 [1.00 pt(s)]

Which of the following is NOT needed for drug bioequivalence?

- Same strength or concentration
- Same dosage form
- Same route of administration
- Same side effects

Question 104 [1.00 pt(s)]

For intravenous (IV) dosages, what is the bioavailability assumed to be?

- 0%
- 25%
- 75%
- 100%

Question 105 [1.00 pt(s)]

For a measured bioavailability, generic drug to be bioequivalent to an innovator drug (per FDA), it must be in of subjects to fall within of the mean of the test population

- 50; 50%
- 80; 20%
- 20; 80%
- 95; 5%

Question 106 [1.00 pt(s)]

Which of the following is NOT a pharmacokinetic process?

- Alteration of the drug by liver enzymes
- Drug metabolites are removed in the urine
- Movement of drug from the gut into general circulation
- The drug causes dilation of coronary vessels

Question 107 [1.00 pt(s)]

Which of the following can produce a therapeutic response? A drug that is:

- Bound to plasma albumin
- Concentrated in the bile
- Concentrated in the urine
- Unbound to plasma proteins

Question 108 [1.00 pt(s)]

Which of the following describes most correctly steroid hormones with respect to their ability to gain access to intracellular binding sites?

- They cross the cell membrane via aqueous pores
- They have a high permeability coefficient
- They are passively transported via membrane carriers
- They require vesicular transport

Question 109 [1.00 pt(s)]
Which of the following statements concerning the bioavailability of a drug is correct?

- It is strictly dose-dependent
- It depends on the route of administration
- It is increased by the first pass hepatic effect
- It remains the same after a change of excipient

**Question 110 [1.00 pt(s)]**

Two patients are receiving a constant I.V. infusion of a drug M. Patient A received a loading dose (Css Q, Vd), while Patient B did not. Assume that the drug disposition can be described by a one compartment model. At what time would steady-state plasma concentrations of the drug be obtained for Subject A?

- Immediately
- After 2 half-lives
- After 7 half-lives
- It would depend on the half-life and infusion rate of the drug M

**Question 111 [1.00 pt(s)]**

All the following physiologic changes may occur in elderly patients EXCEPT:

- A decrease in GFR
- A decrease in gastric pH
- A decrease in serum albumin
- A decrease in hepatic mass

**Question 112 [1.00 pt(s)]**

What would be the dose of a drug to be administered to achieve a target concentration of 10 µg/L if the volume of distribution (Vd) is 350 liters?

- 350 µg
- 350 mg
- 3.5 mg
- 35 µg

**Question 113 [1.00 pt(s)]**

The elimination half-life of quinidine sulfate (F = 0.8, 1st order reaction) is almost 6h. What would be the percentage of the drug remaining in the body 12 hours after the administration of 100 mg IV bolus:

- 12.5%
- 25%
- 50%
- 75%

**Question 114 [1.00 pt(s)]**

A 40mg of a drug is administered by IV bolus. Its initial plasma concentration (Co) is 5 mg/L. Its plasmatic half-life is 25 hours. The volume of distribution of this drug is:

- 125 liters
- 25 liters
Question 115 [1.00 pt(s)]

The pharmacokinetics of a new drug was studied in healthy volunteers. It was found that the drug follows first-order, one-compartment model kinetics and has a volume of distribution of 100 L. After the oral administration of 200 mg, the theoretical plasma concentration at time 0 turned out to be 1 mg/L. Which of the following is most likely the oral bioavailability of the drug?

- 0.1
- 0.5
- 0.8
- 1.0

Question 116 [1.00 pt(s)]

A 22-year-old man suffering from adult autism and violent behavior started a treatment that included buspirone, a drug with a large first-pass effect. Which of the following pharmacokinetic properties of the drug is most likely affected by this large first-pass effect?

- Volume of distribution
- Oral bioavailability
- Renal clearance
- Sublingual bioavailability

Question 117 [1.00 pt(s)]

A 52-year-old woman suffering from rheumatoid arthritis started a treatment that included Infliximab, a monoclonal antibody against tumor necrosis factor-α (TNF-α). The drug has a volume of distribution of about 3 L. Which of the following is most likely the main site of distribution of this drug?

- Fat tissue
- Plasma
- Extracellular fluids
- Cell cytosol

Question 118 [1.00 pt(s)]

The dissolution rate of a substance depends on all the following factors EXCEPT:

- The dosage form of the substance
- The type of the dissolution apparatus
- The physicochemical characteristics of the substance
- The pharmacodynamic properties of the substance

Question 119 [1.00 pt(s)]

In zero order reaction, the rate of transfer is:

- Variable and independent of the concentration
- Constant and concentration-dependent
- Variable and concentration-dependent
- Constant and independent of the concentration
Question 120 [1.00 pt(s)]

BCS classification takes into account the following properties of a drug EXCEPT

- Solubility
- Dissolution
- Permeability
- Therapeutic index

Question 121 [1.00 pt(s)]

Which of the following conditions is not necessary to take in consideration prior the establishment of an in vivo/in vitro level A correlation?

- The preexistence of the PK/PD relationship
- The release of the active ingredient is the limiting factor
- The linearity of the rate input of the active ingredient
- May be considered after several administrations

Question 122 [1.00 pt(s)]

Which of the following statements is correct?

- The equation $C_p = C_{p0} - kt$ is for first-order elimination
- The equation $\ln C_p = \ln C_{p0} - kt$ is for zero-order elimination
- The equation $C_p = Ae^{-\beta t} + B e^{-\gamma t}$ is for one-compartment model
- The half-life of a one-compartment model is determined by $t_{1/2} = 0.693/k$

Question 123 [1.00 pt(s)]

Which of these statements concerning flip-flop is incorrect:

- Usually used when the absorption half-life is greater than the elimination half-life
- Concerns particularly the sustained-release preparations
- It often results with an increase of $T_{max}$
- It often results with a decrease of $C_{max}$

Question 124 [1.00 pt(s)]

Drug D has a Clearance of 4 L/hr and a volume of distribution of 250 L. What is the drug half-life?

- About 6 minutes
- About 24 hours
- About 2.5 hours
- About 40 hours

Question 125 [1.00 pt(s)]

Gels can be used to administer medications in all of the following, except:

- Orally
- Vaginally
- Topically
- Subcutaneously
**Question 126 [1.00 pt(s) ]

What would be the maximum beyond use date of an extemporaneous aqueous solution?

- 3 months
- 1 month
- 14 days
- 6 months

**Question 127 [1.00 pt(s) ]

Which of the following is not correct about emulsions?

- Can be used topically, orally, and intravenously
- Can be flavored as to overcome taste problems
- Are thermodynamically stable with a two-phase system
- Some emulsions can be self-emulsifying

**Question 128 [1.00 pt(s) ]

Which of the following options does not usually necessitate a preservative?

- Otic preparations
- Nasal preparations
- Single-dose ophthalmic preparations
- Multi-dose ophthalmic preparations

**Question 129 [1.00 pt(s) ]

Which of the following dosage forms would be suitable for the administration of medications to treat a systemic condition?

- Ophthalmic preparations
- Otic preparations
- Vaginal ovules
- Rectal suppositories

**Question 130 [1.00 pt(s) ]

Which of the following agents can serve as a humectant, a wetting agent, a lubricant, and a preservative?

- Gelatin
- Alcohol
- Glycerin
- Mineral oil

**Question 131 [1.00 pt(s) ]

Hair growth agents include all of the following except

- Vasodilators
- Hair follicle stimulants
- Nourishing agents
- Exfoliating agents

**Question 132 [1.00 pt(s) ]
Which one of the following statements is not considered a criterion of an appropriate solvent?

- It should be inert
- It should dissolve the solute completely
- When it is heated, it should remain safe and nontoxic
- It should have a synergistic effect with the active ingredient.

**Question 133 [1.00 pt(s)]**

Give an example of a solvent that is intended for internal use in the preparation of non-aqueous solutions.

- Methyl alcohol
- Amyl alcohol
- Volatile ethers
- Glycerin

**Question 134 [1.00 pt(s)]**

Which solution has the largest osmolarity?

- 0.20 M KBr in water
- 0.20 M MgCl2 in water
- 0.20 M CH3OH in water
- 0.20 M Na3PO4 in water

**Question 135 [1.00 pt(s)]**

A solution is saturated:

- When we need to heat for the dissolution to happen
- When the solute is soluble up to 10 g/l
- When we cannot dissolve additional solute
- When it is prepared with a buffer

**Question 136 [1.00 pt(s)]**

Concerning solubility, which of the following is true?

- Solid/liquid: increase of temperature \(\rightarrow\) decrease of solubility
- Liquid/liquid: increase of temperature \(\rightarrow\) decrease of solubility
- Gaz/liquid: increase of temperature \(\rightarrow\) increase of solubility
- Gaz/liquid: increase of temperature \(\rightarrow\) decrease of solubility

**Question 137 [1.00 pt(s)]**

You have a mixture that is a combination of two or more substances, and it looks the same throughout, even under an electronic microscope. What is the term for that mixture?

- a dispersed system
- an emulsion
- a suspension
- a solution

**Question 138 [1.00 pt(s)]**
A transdermal patch:

- Is used to have a local effect
- Needs a complex patient training for use
- Is associated with bad patient compliance
- May induce hypersensitivity reactions

**Question 139** [1.00 pt(s)]

**Intradermal route of administration:**

- Used only for large volumes
- Preparations must be sterile
- Is an enteral route of administration
- Has the best drug absorption profile

**Question 140** [1.00 pt(s)]

**Concerning the nasal drug delivery systems:**

- The bioavailability of smaller drug molecules should be improved by means of absorption enhancers
- The concentration of the absorption enhancer used should be high enough to modify the nasal cavity properties for at least 3 to 4 months after use
- The absorption enhancer used should not be irritating
- Trapping of the drug by the nasal mucus will increase its systemic effect

**Question 141** [1.00 pt(s)]

All the following statements concerning nasal sprays are true except:

- They undergo quick loss after administration
- They consist of atomized jet of liquid
- The drug is put in a solution or suspension
- They have a better absorption than nasal drops

**Question 142** [1.00 pt(s)]

The characteristics of nasal gels over solutions include:

- Lower absorption
- More post-nasal drip
- More anterior leakage of the formulation
- Higher residence time

**Question 143** [1.00 pt(s)]

Which one of the following statements is true regarding nasal systemic absorption?

- Higher the hydrosolubility, better the absorption
- Lower the molecular weight, higher the leakage loss
- Higher the susceptibility to enzyme degradation, lower the absorption
- Higher the molecular weight, better the absorption

**Question 144** [1.00 pt(s)]

Which one of the following statements is true regarding absorption of drugs after pulmonary administration?
Absorption is higher at the trachea level due to large surface of contact
- The tightness of cell junctions goes down from a maximum in the trachea to a minimum in the distal airways
- Macrophages present at the alveoli level increase drugs bioavailability
- There is no real absorption after pulmonary administration

Question 145 [1.00 pt(s)]

The patient dependent factors that affect pulmonary drugs absorption include all of the following except:

- Compliance
- Weight
- Coordination of aerosol generation with inspiration
- Inhaled volume

Question 146 [1.00 pt(s)]

Which one of the following statements about mucociliary clearance is true?

- Mucociliary clearance is relevant in otic and ocular routes of drugs administration
- Mucociliary clearance includes the role of macrophages in the lungs alveoli
- Mucociliary clearance usually increases drugs bioavailability
- Mucociliary clearance is a limiting factor for absorption of drugs to the blood

Question 147 [1.00 pt(s)]

 Concerning nebulizers:

- They deliver the total quantity of a drug in seconds
- They are specifically used for small drug doses
- They do not require propellant
- They require patient coordination

Question 148 [1.00 pt(s)]

Concerning Pre-metered DPIs (Dry powder inhalers):

- The medication is most commonly stored in solution
- They include previously measured doses or dose fractions
- They need a propellant gas
- They have an internal reservoir containing sufficient formulation for multiple doses

Question 149 [1.00 pt(s)]

Sugar-coating of tablets:

- Retains the contour of the original tablet
- Increases weight substantially by 30 to 50%
- Allows multi-particulate coating
- Requires a single step only to apply

Question 150 [1.00 pt(s)]

All of the following substances are hydrophobic bases EXCEPT:
Bees wax
Polysorbate
Cetyl alcohol
Spermaceti

**Question 151** [1.00 pt(s)]

A 40mg of drug is administered by IV bolus. Its initial plasma concentration is 5 mg/L. Its half-life in plasma is 25 hours. The volume of distribution of this drug is:

- 200 liters
- 125 liters
- 25 liters
- 8 liters

**Question 152** [1.00 pt(s)]

The elimination half-life of quinidine sulfate (F = 0.8, order 1 reaction) is almost 6h. What would be the percentage of drug remaining in the body 12 hours after administration of 100 mg IV bolus is:

- 12.5%
- 25%
- 75%
- 87.5%

**Question 153** [1.00 pt(s)]

A drug solution decomposes via first-order kinetics with a rate constant, k, of 0.0077 days\(^{-1}\). What is the half-life of the drug in solution?

- 0.033 days
- 33 days
- 70 days
- 90 days

**Question 154** [1.00 pt(s)]

A patient presents with an overdose of acidic Aspirin. The drug ____ can be given to ____ the pH of the urine and trap the Aspirin, preventing further metabolism.

- NaHCO\(_3\); Increase
- NaHCO\(_3\); Decrease
- NH\(_4\)Cl; Increase
- NH\(_4\)Cl; Decrease

**Question 155** [1.00 pt(s)]

Which of the following drugs would most likely need a loading dose to reach therapeutic concentration levels?

- Acetaminophen, t(1/2) = 2 h
- Tetracycline, t(1/2) = 11 h
- Digitoxin, t(1/2) = 161 h
- Adenosine, t(1/2) = 10 s

**Question 156** [1.00 pt(s)]

Calculate the loading dose of a drug to achieve a concentration of 15 mg / L (k = 0.15h\(^{-1}\). Clearance = 2.5L / h)
Question 157 [1.00 pt(s) ]

The following may reduce fluctuations in the plasma drug concentration after oral drug multiple administration:

- Less frequent administration of divided doses
- Larger doses with smaller time interval
- Smaller doses with longer time interval
- More frequent administration of divided doses

Question 158 [1.00 pt(s) ]

For first-order drug elimination, given the half-life equation of \( t_{1/2} = \frac{0.693 \times V_D}{CL} \), how many half-lives would be necessary to reach steady state (≈95%) without a loading dose?

- 1 to 3 half-lives
- 3 to 4 half-lives
- 4 to 5 half-lives
- 5 to 6 half-lives

Question 159 [1.00 pt(s) ]

Aspirin is an ester drug that hydrolyses upon exposure to moisture giving:

- Acetic acid and citric acid
- Acetic acid and salicylic acid
- Acetyl salicylic acid and acetic acid
- Acetyl salicylic acid and salicylic acid

Question 160 [1.00 pt(s) ]

FDA waive the submission of in-vivo evidence demonstrating the bioavailability of the following:

- IV oil/water emulsion
- Dry powder inhaler
- Anti-acne cream
- Nicotine transdermal patch

Question 161 [1.00 pt(s) ]

Which of the following excipients is used to stabilise pharmaceutical suspensions for oral administration?

- Methylcellulose
- Saccharose
- Benzoic acid
- Erythrosine
Question 162 [1.00 pt(s)]

Which one of the following statements is INCORRECT:

- Prodrugs may be designed from existing drugs to improve drug solubility
- Prodrugs may be designed from existing drugs to increase drug stability
- Prodrugs may be designed from existing drugs to enable site-specific drug delivery
- A prodrug is not considered a novel chemical entity

Question 163 [1.00 pt(s)]

Which one of the following statements is INCORRECT:

Polymers that can be used for enteric coating include

- Cellulose acetate phtalate
- Hydroxypropyl methylcellulose acetate phtalate
- Poly(vinyl chloride)
- Polymethacrylates

Question 164 [1.00 pt(s)]

Which one of the following statements is INCORRECT:

- A simple emulsion contains two liquid phases (oil and water)
- In a water/oil emulsion, the oil phase is dispersed and the water phase is continuous
- A simple suspension contains a liquid and a solid phase
- In a suspension the solid phase is dispersed and the liquid phase is continuous

Question 165 [1.00 pt(s)]

Regarding an emulsion for oral administration, which of the following statements is CORRECT?

- The type of emulsion should be oil/water
- The type of emulsion should be water/oil
- The emulsion should be preserved using a quaternary ammonium compound
- The product must be coloured

Question 166 [1.00 pt(s)]

Which of the following statements is correct regarding the formulation of oil/water creams containing a therapeutic agent?

- The cream may be diluted with purified water without a loss of physical stability
- The therapeutic agent must be soluble in the external phase
- The droplet size of the internal phase must be greater than 100 µm
- The concentration of the internal phase must not exceed 40%

Question 167 [1.00 pt(s)]

Which of the following statements is TRUE regarding water/oil emulsions?

- They do not conduct electrical current
- They are always more stable than oil in water emulsions
- Preservation of water/oil emulsions is not necessary
- They must be formulated within a defined pH range
Question 168 [1.00 pt(s)]

Which of the following statements is true regarding single dose aqueous parenteral suspension?

- Increasing the particle size will increase the rate of dissolution at the site of injection
- The formulation contains a preservative
- The formulation is administered by IM
- The suspension is sterilised by filtration

Question 169 [1.00 pt(s)]

Regarding an aqueous gel designed for the treatment of conjunctivitis, which of the following statements is INCORRECT?

- The product must be sterile
- Preferably the drug should be soluble in the formulation
- Anionic surfactants are commonly used as preservatives
- The pH of the formulation should be approximately neutral

Question 170 [1.00 pt(s)]

Regarding ocular dosage forms, which of the following statements is INCORRECT?

- The use of ointments is preferred to that of solutions
- High viscosity solutions decrease lacrimal drainage
- The particle size of therapeutic agents in ocular suspensions is less than 10 µm
- Ocular dosage forms are sterile products

Question 171 [1.00 pt(s)]

Regarding nasal solutions, which of the following statements is TRUE?

- Successful systemic absorption of a therapeutic agent across the nasal mucosa requires the therapeutic agent to be unionised
- Nasal solutions are always sterile
- Oily nasal solutions require an antimicrobial preservative
- Nasal solutions should be colored

Question 172 [1.00 pt(s)]

Which of the following statements regarding glycerol-gelatin suppositories is INCORRECT?

- They may exert a physiological effect
- They are hygroscopic
- They do not need a preservative
- They require a long preparation time

Question 173 [1.00 pt(s)]

Which of the following statements regarding suppositories prepared using poly(ethylene glycol) (PEG) as the suppository base is CORRECT?

- They are prepared using PEG of low-molecular-weight grades
- These bases do not melt within the rectum
- They may exert a physiological effect
- They need a preservative

Question 174 [1.00 pt(s)]
Which of the following statements regarding an aqueous vaginal gel containing metronidazole is correct?

- The pH of the gel should be around 7
- The gel must be isotonic
- The gel must be colored
- The gel should not be sterile

**Question 175 [1.00 pt(s)]**

Regarding pressurised metered-dose inhalers, which of the following statements is **INCORRECT**?

- They require either a compressed-gas source or an ultrasonic device
- They are portable
- They are convenient
- They require patient coordination

**Question 176 [1.00 pt(s)]**

Physical properties of a coating on a tablet depend on all of the following **except**:

- Coating thickness.
- The rate of drying.
- The type of coating equipment.
- The polymer concentration of the coating.

**Question 177 [1.00 pt(s)]**

Regarding hard gelatin capsules, which of the following statements is **incorrect**?

- They may be filled with oil/water emulsions.
- They may be filled with powders.
- They may be used as a component of inhalation dosage forms.
- Tablets may be filled into hard gelatin capsules.

**Question 178 [1.00 pt(s)]**

Which of the statements is true regarding the manufacture of hard gelatin capsules?

- They should not be colored.
- Lubricants may be required in the formulation.
- Aqueous solutions may be used as the fill material.
- Hard gelatin capsules shells are prepared using a polymerisation process.

**Question 179 [1.00 pt(s)]**

Which one of the following statements is **INCORRECT**:

While drug infusions can provide controlled plasma levels, they have certain disadvantages including:

- Inconvenience for the patient
- Necessity for medical personnel to be involved in the administration
- Cannot be used for infants and elderly
- Require a sterile formulation

**Question 180 [1.00 pt(s)]**
All the following systems have been developed for the delivery and targeting of drugs EXCEPT:

- Endosomes
- Nanoparticles
- Polymerised liposomes
- Virosomes

**Question 181 [1.00 pt(s)]**

To be directly compressed into tablets, materials must have the following properties EXCEPT:

- good compressibility properties
- having lubrication properties
- free flowing
- having low melting point

**Question 182 [1.00 pt(s)]**

*Tween 60 and span 60 are surfactants of:*

- High and low HLB, respectively
- Low and high HLB, respectively
- Low HLB
- High HLB

**Question 183 [1.00 pt(s)]**

The most used diluent in chewable tablets is:

- Mannitol
- Glucose
- Lactose
- Sucrose

**Question 184 [1.00 pt(s)]**

Which one of the following substances is used as a humectant for skin moisturizers?

- Sucrose
- Silicone
- Liquid Paraffin
- Glycerol

**Question 185 [1.00 pt(s)]**

All of the following are enteric coating polymers EXCEPT:

- Hypromellose phthalate
- Cellulose acetate phthalate
- Hydroxypropylmethyl cellulose
- Eudragit L100

**Question 186 [1.00 pt(s)]**

Gastroretentive drug delivery systems are beneficial for the following drugs EXCEPT:

- Drugs that are highly absorbed from the duodenum
Drugs that degrade in the stomach
Drugs that are highly absorbed from the stomach
Drugs that act locally in the stomach

Question 187 [1.00 pt(s) ]

Colloidal silicone dioxide is used as:

- Diluent
- Binder
- Glidant
- Disintegrant

Question 188 [1.00 pt(s) ]

All these properties of materials are important to be directly compressed into tablets EXCEPT:

- Good compressibility properties
- Having lubrication properties
- Free flowing
- Having low melting point

Question 189 [1.00 pt(s) ]

The function of upper punch in the tablet machine is:

- Determining the size and shape of tablet
- Controlling the compression force
- Controlling the tablet weight
- Removing the excess powder before compression

Question 190 [1.00 pt(s) ]

Which one of the following powders is non wettable?

- Sodium bicarbonate
- Magnesium carbonate
- Sulphur
- Aspirin

Question 191 [1.00 pt(s) ]

Major disadvantage(s) of glass as a packing material is (are)

- Fragility
- Weight
- A and B
- None of the above

Question 192 [1.00 pt(s) ]

Which of the following packaging material is used to protect the drug content against light?

- Plastic containers
- Amber colored glass containers
- A and B
Question 193 [1.00 pt(s)]
Which of the following one is used as opacifier?
- TiO₂
- MgO
- Silicates
- All of the above

Question 194 [1.00 pt(s)]
Dose dumping is a problem in the formulation of:
- Compressed tablet
- Suppository
- Soft gelatin capsule
- Controlled release tablet

Question 195 [1.00 pt(s)]
Which statement is NOT CORRECT?
- Buccal route avoids hepatic first pass metabolism
- Parenteral route avoids hepatic first pass metabolism
- Sublingual route avoids hepatic first pass metabolism
- Oral route avoids hepatic first pass metabolism

Question 196 [1.00 pt(s)]
Partition coefficient generally measures:
- Drug lipophilicity
- Ability of drug to cross cell membrane
- A and B
- None of the above

Question 197 [1.00 pt(s)]
Benzalkonium chloride is categorized as:
- Acidic preservative
- Neutral preservative
- Mercurial preservative
- Quaternary ammonium compound

Question 198 [1.00 pt(s)]
Solid dispersion is meant for:
- Increased solubility
- Increased dissolution rate
- Increased bioavailability
- All of the above

Question 199 [1.00 pt(s)]
Cocoa butter is used as:
Topical base
Rectal base
Ophtalmic base
None of the above

**Question 200** [1.00 pt(s)]

Major drug release mechanisms from controlled release dosage forms are:
- Dissolution, degradation
- Dissolution, diffusion, erosion
- Biotransformation, degradation
- None of the above

**Question 201** [1.00 pt(s)]

Delayed release system is:
- Enteric coated tablet
- Orodispersible tablet
- Sugar coated tablet
- None of the above

**Question 202** [1.00 pt(s)]

The rationale for using a transdermal patch over an oral tablet includes the following EXCEPT:
- It provides a more prolonged action
- It avoids hepatic first pass metabolism
- It provides a faster onset of action
- It avoids digestive enzymes

**Question 203** [1.00 pt(s)]

To identify the emulsion type, which of the following tests is (are) conducted?
- Dilution test
- Dye test
- Conductivity test
- All of the above

**Question 204** [1.00 pt(s)]

Which of the following excipients forms non-absorbable complex with tetracycline:
- Starch
- Calcium phosphate
- Microcrystalline cellulose
- Lactose

**Question 205** [1.00 pt(s)]

What kind of substances cannot permeate membranes by passive diffusion?
- Lipid-soluble
- Non-ionized substances
- Hydrophobic substances
Hydrophilic substances

**Question 206 [1.00 pt(s)]**

The kinetic of dissolution of a substance depends on all of these factors EXCEPT:

- The formulation of the substance
- The type of dissolution apparatus
- Physicochemical characteristics of the substance
- The pharmacodynamic characteristics of the substance

**Question 207 [1.00 pt(s)]**

The bioequivalence between two products (Brand and generic) is required in case of active ingredient with:

- Same dose
- Same route of administration
- Same dose and dosage forms
- Same dose and route of administration

**Question 208 [1.00 pt(s)]**

In case of zero-order reaction, the transfer rate is:

- Variable and independent of the concentration
- Variable and dependent of the concentration
- Constant and independent of the concentration
- Constant and dependent of the concentration

**Question 209 [1.00 pt(s)]**

Hereafter is the total plasma concentration-time profile of Felodipine (Ca inhibitor) after single administration without ( _) and with ( _) grapefruit juice. Which of the following mechanism is responsible for the modification in observed plasma concentrations?

- Enzymatic induction
- Enzymatic inhibition
- Displacement from plasma proteins
- Enterohepatic circulation

**Question 210 [1.00 pt(s)]**

All these factors decrease bioavailability EXCEPT:

- Hepatic first-pass effect
- Hydrosolubility
- Ionized molecular form
- Inhibition of P-glycoprotein
Question 211  [1.00 pt(s) ]  

Fick's law is used to describe:

- The rate of resorption by active transport
- The rate of dissolution of a solid form
- The rate of resorption by passive diffusion
- The dissociation of protein-drug complex

Question 212  [1.00 pt(s) ]  

During drying process in fluidized bed dryer, the direction of air flow through a bed of solids is:

- Upward at a velocity greater than the settling velocity of the particles
- Upward at a velocity lower than the settling velocity of the particles
- Downward at a velocity lower than the settling velocity of the particles
- Upward at a velocity equal to the settling velocity of the particles

Question 213  [1.00 pt(s) ]  

The product from spray drying technique is in the form of:

- Smooth hollow spheres
- Irregular hollow spheres
- Smooth non porous spheres
- Irregular non porous spheres

Question 214  [1.00 pt(s) ]  

Hammer mill is used as:

- Grinder for rubbery materials
- Homogenizer for preparing the emulsion
- Mixer for dry powders
- Grinder for very hard crude materials as Nux Vomica

Question 215  [1.00 pt(s) ]  

The correct order of sugar coating steps for tablets is

- Sub coating, water proofing, smoothing, coloring, polishing
- Water proofing, sub coating, smoothing, coloring, polishing
- Smoothing, sub coating, water proofing, coloring, polishing
- Water proofing, coloring, smoothing, sub coating, polishing

Question 216  [1.00 pt(s) ]  

Which of the following drug is expected to have the highest water solubility:

- Sulphadiazine (mp = 253 °C)
- Sulphapyridine (mp = 192 °C)
- Sulphathiazole (mp = 174 °C)
- Sulphamerazine (mp = 236 °C)

Question 217  [1.00 pt(s)] **Shuffle Disabled**
Tween 80 and sodium lauryl sulphate shared mechanism of emulsion formation is:

- Reduction of the interfacial tension
- Repulsion between the adjacent droplets
- Formation of coherent multimolecular layer around the droplets
- Both mechanisms in a and b

Question 218 [1.00 pt(s)]

Formation of gel differs in natural gum and methylcellulose as follows:

- Natural gum forms gel on heating and methylcellulose forms gel on cooling
- Natural gum forms gel on cooling and methylcellulose forms gel on heating
- Natural gum forms gel upon addition of anions and methylcellulose forms gel on heating
- Natural gum forms gel upon addition of cations and methylcellulose forms gel on heating

Question 219 [1.00 pt(s)]

An FDA approved cationic polymer is:

- Carbophil
- Chitosan
- Carboxymethyl cellulose
- Sodium carboxymethyl cellulose

Question 220 [1.00 pt(s)]

All of the following are hydrophobic ointment bases except:

- Lanolin
- Cetyl alcohol
- Polyethylene glycol
- Mineral oil

Question 221 [1.00 pt(s)]

High-fat meal may increase the bioavailability of griseofulvin through:

- Delay in the gastric emptying rate
- Increase in the gastric emptying rate
- Increase in the bile secretion
- Inhibition of efflux pump (P-gp)

Question 222 [1.00 pt(s)]

Solid dispersion is defined as:

- A molecular dispersion of the drug in a solvent
- A homogenous distribution of drug particles in a solvent
- A molecular dispersion of the drug in a solid matrix
- A homogenous distribution of drug particles in a solid matrix

Question 223 [1.00 pt(s)]

What is the concentration of a 2 % (w/v) solution when expressed as mg.mL$^{-1}$?
Question 224 [1.00 pt(s)]

Which of the following is a water-soluble lubricant?

- Stearic acid
- Mineral oil
- PEG
- Magnesium stearate

Question 225 [1.00 pt(s)]

Flow rate of granules from the hopper can be improved by adding:

- Disintegrant
- Glidant
- Binder
- Lubricant

Question 226 [1.00 pt(s)]

Cellulose acetate phthalate dissolves at pH:

- 4
- Above 6
- Below 6
- 2

Question 227 [1.00 pt(s)] **Shuffle Disabled**

Which of the following is/are used to increase the viscosity of a liquid?

- Bentonite
- Methylcellulose
- Sodium carboxymethylcellulose
- All of the above

Question 228 [1.00 pt(s)]

Which of the following statements is wrong?

- Syrups are aqueous preparations of sweet taste and viscous consistency
- Above 45% concentration, a sucrose solution is called syrup
- Mucoadhesive oral preparations have only local action
- Parenteral preparations are always sterile

Question 229 [1.00 pt(s)] **Shuffle Disabled**

The HLB system was developed by:

- Griffin
- Stock’s
- Dalla Valle
Question 230 [1.00 pt(s)]

For a highly protein-bound drug, the body fluid used to monitor its concentration should be:

- Serum
- Saliva
- Urine
- Plasma

Question 231 [1.00 pt(s)]

All these physiologic changes may occur in elderly patients EXCEPT:

- A decrease in GFR
- A decrease in gastric pH
- A decrease in serum albumin
- A decrease in liver size

Question 232 [1.00 pt(s)]

What would be the dose of a drug to be administered to achieve a target concentration of 10 microgram/L if the volume of distribution is 350 liters?

- 350 microgram
- 350 mg
- 3.5 mg
- 35 microgram

Question 233 [1.00 pt(s)]

Phenytoin is characterized by all of the following EXCEPT:

- It is unbound to albumin
- It is mainly metabolized by CYP2C9
- Its clearance is concentration-dependent
- It induces a concentration dependent side effects

Question 234 [1.00 pt(s)]

Biopharmaceutical classification system takes into account the following properties of a drug EXCEPT:

- Solubility
- Dissolution
- Permeability
- Therapeutic index

Question 235 [1.00 pt(s)]

A metastable polymorphic form of a drug:

- Will tend to transform to the stable form
- Is the most stable form
- Has the most stable form
Has a higher solubility than the amorphous form

**Question 236 [1.00 pt(s)]**

A parameter used to measure wettability of powder is:

- Contact angle
- Angle of repose
- Carr’s index
- Laser diffraction

**Question 237 [1.00 pt(s)]**

Migration of the components of a plastic container to the formulation:

- Sorption
- Permeation
- Leaching
- Softening

**Question 238 [1.00 pt(s)]**

Which of the following excipients may interact with cetrimide:

- Tween
- Liquid paraffin
- Sodium lauryl sulphate
- Bees wax

**Question 239 [1.00 pt(s)]**

Phenobarbital (weakly acidic) has a pKa = 7.41. Which of the following pH is the best pH for a maximum solubility?

- pH = 5.41
- pH = 2
- pH = 7.41
- pH = 9.41

**Question 240 [1.00 pt(s)]**

Solubility of a gas in liquid is expressed in term of:

- Stoke’s law
- Henry’s law
- Van’t Hoff equation
- Ficks’ law

**Question 241 [1.00 pt(s)]**

All of the following are characteristics of molecular dispersion except:

- Visible in electron microscope
- Pass through ultra-filter
- Pass through semipermeable membrane
Undergo rapid diffusion

**Question 242** [1.00 pt(s)]

**Hardness of conventional tablets should not exceed:**
- 8 kg
- 5 kg
- 10 kg
- 3 kg

**Question 243** [1.00 pt(s)]

**Suppositories with rough surface may be due to:**
- Non lubrication of the mold
- Non overfilling of the mold
- Overmelting of base
- Rapid refrigeration of suppositories

**Question 244** [1.00 pt(s)]

**The time for total drug elimination from the body is approximately:**
- 3 half lives
- 5 half lives
- 7 half lives
- 4 half lives
PART 1(Law - MCQ)

Question 1 [1.00 pt(s)]
من يمنح إجازة "مراقبة مهنة الصيدلة"
- نقابة المهندسين
- وزارة الصحة
- لجنة الكولوكوم
- الجامعة التي تخرج منها الطالب

Question 2 [1.00 pt(s)]
أي من الافتراضات التالية مسموحة لصيدلي صاحب صيدلية
- أن يكون له مصلحة في صيدلية أخرى
- أن يقوم بعمل تطوعي خارج صيدلاته
- أن يكون له وظيفة خارج لبنان
- أن يكون له وظيفة صيدلانية أخرى داخل لبنان

Question 3 [1.00 pt(s)]
في حالة نتيع الصيدلي لا يجوز أن تفوق مدة النتيع أكثر من:
- 6 أشهر
- 12 شهرًا
- 18 شهرًا
- 21 شهرًا

Question 4 [1.00 pt(s)]
من يمنح رخصة بفتح صيدلية
- رئيس لجنة الكولوكوم
- وزير الصحة العامة
- نقابة المهندسين
- وزارة المالية

Question 5 [1.00 pt(s)]
على الصيدلي أن يبلغ وزارة الصحة العامة ونقابة صيدلائه لبنان في حال نتيع عن صيدلته لمدة:
- أكثر من شهر
Question 6 [1.00 pt(s)]

المسافة القانونية بين صيدليتين أخرى في لبنان لا تقل عن:

- 200 م
- 300 م
- 400 م
- 500 م

Question 7 [1.00 pt(s)]

يسمح بالإعلان والإعلام عن الأعشاب ذات الصفة الطبية:

- صحيح
- خاطأ
- لا يهم
- صحيح في حالات مرسية معينة

Question 8 [1.00 pt(s)]

في حال وجود خطأ في الوصف الطبي:

- يبدل الصيدلي الدواء حسب ما يراه مناسبًا
- يتصل الصيدلي بالطبيب
- يتصل بنقابة الأطباء
- يصح الصيدلي الخطأ دون الرجوع إلى أحد

Question 9 [1.00 pt(s)]

ما اسم اللجنة في وزارة الصحة العامة التي تنظر في ملف الدواء لإعطاء الترخيص:

- لجنة الدواء
- لجنة الفنية
- لجنة الإستيراد
- لجنة الإدارية

Question 10 [1.00 pt(s)]

على اللجنة أن تثبت في ملف الدواء خلال:

- شهر واحد
- شهرين
- ثلاثة أشهر
- سنة واحدة

Question 11 [1.00 pt(s)]

رئيس اللجنة الفنية في وزارة الصحة العامة يكون:

- نقيب صيادلة لبنان
- مدير عام وزارة الصحة العامة
- رئيس دائرة الإستيراد في وزارة الصحة
- وزير الصحة العامة
Question 12 [1.00 pt(s)]

من هي الجهة التي تسعر الدواء في لبنان:

- نقابة الصيدلة
- وزارة الصحة العامة
- وزارة الاقتصاد
- دائرة الإستيراد في وزارة الصحة

Question 13 [1.00 pt(s)]

لا يحق للطبيب أن:

- يكون حامل شهادة صيدلي
- بيع الأدوية للمريض
- بيع المساطر المخالبة
- استبدال أدوية المريض دون الرجوع إلى الصيدلي

Question 14 [1.00 pt(s)]

يحق للصيدلي أن:

- يصرف الدواء دون وصفه طبي
- بيع دواء مجهول الموارد
- تصبح بعض الأدوية السموم بما من وزارة الصحة العامة
- أن بيع الدواء بالسعر الذي يبرده

Question 15 [1.00 pt(s)]

بالنسبة للترخيص يفتح صيدلية يكون رأي النقابة:

- إعصاراً
- إراماً
- غير مطلوب
- المقرر الوحيد

Question 16 [1.00 pt(s)]

يحق لأرملة وورثة الصيدلي أن يستمروا الصيدلية لفترة:

- ثلاث سنوات
- أربع سنوات
- خمس سنوات
- ستة سنوات

Question 17 [1.00 pt(s)]

من شروط فتح مستودع أدوية:

- أن يكون في طابق علوي
- أن يكون على مستوى الطريق
- أن يكون مساحاته موزونة للمصلحة
- لا يهم

Question 18 [1.00 pt(s)]

يحق للصيدلي الإشراك بالجمعية العمومية في نقابة صيدلية لبنان إذا:
Question 19 [1.00 pt(s)]

يحق للصيدلي أن يستفيد من رابط التقاعد الصيدلي شرط أن يكون غدي الصندوق لمدة:

- 30 سنة
- 30 سنة
- 30 سنة
- 30 سنة

Question 20 [1.00 pt(s)]

أي من الافتراضات التالية صحيح:

- يحق للطبيب أن بيع النماذج الطبية
- يحق للصيدلي أن بيع النماذج الطبية في حال إيقاف الدواء
- يمنع منعًا صارما بيع النماذج الطبية
- يحق للصيدلي أن بيع النماذج الطبية في الحالات الطارئة

Question 21 [1.00 pt(s)]

يجب أن لا تقل مساحة الصيدلية عن:

- 37 م
- 20 م
- 27 م
- 20 م
- 23 م
- 20 م

Question 22 [1.00 pt(s)]

ما هو عدد أعضاء مجلس النقابة؟

- 10
- 13
- 14
- 10

Question 23 [1.00 pt(s)]

ما هو عدد أعضاء صندوق التقاعد?

- 7
- 8
- 9
- 10

Question 24 [1.00 pt(s)]

ما هو عدد أعضاء مجلس النادب؟

- 5
- 6
- 7
- 8
Question 25 [1.00 pt(s)]

يسمح بالتصنيع داخل الصيدلية شرط أن تكون مساحتها تزيد عن:

- 2م²
- 6م²
- 2م³
- 2م³

Question 26 [1.00 pt(s)]

يساهم الصيدلي صاحب الصيدلية بنغذية صندوق النقاعد بقيمة:

- 20٪ من سعر بيع الدواء
- 20٪ من سعر بيع الدواء
- 20٪ من سعر بيع الدواء
- 1٪ من سعر بيع الدواء

Question 27 [1.00 pt(s)]

يساهم الصيدلي الموظف بنغذية صندوق النقاعد:

- احتياطياً بقيمة 1٪ من راتب الشهر
- احتياطياً بقيمة 2٪ من راتب الشهر
- إلزامية بقيمة 2٪ من راتب الشهر
- إلزامية بقيمة 1٪ من راتب الشهر

Question 28 [1.00 pt(s)]

يساهم الصيدلي المسوق بنغذية صندوق النقاعد بقيمة:

- 20٪ من سعر بيع الدواء
- 20٪ من سعر بيع الدواء
- 20٪ من سعر بيع الدواء
- 1٪ من سعر بيع الدواء

Question 29 [1.00 pt(s)]

تكون ولاية أي عضو منتخب:

- 3 سنوات قابلة للتجديد مرة واحدة
- 3 سنوات قابلة للتجديد مرة واحدة
- 3 سنوات غير قابلة للتجديد
- لا مهلة محددة للولاية

Question 30 [1.00 pt(s)]

يحق للصيدلي أن يترشح للعضوية إذا كان:

- متخصص لللغة منذ 10 سنوات
- متخصص لللغة منذ 10 سنوات
- براع المنهج منذ 10 سنوات
- براع المنهج منذ 10 سنوات

Question 31 [1.00 pt(s)]

ينتخب التقييم من قبل:
مجلس النقابة
الجمعية العمومية
لجنة النقاعد ومجلس الناديين
وزارة الصحة

Question 32 [1.00 pt(s)]
أي من الشروط التالية لترخيص صيدلية خاطئ:
- أن تكون في الطابق الأرضي
- أن تكون لها باب خلفي
- أن تحتوي على مختبر
- أن تكون باسم صيدلي

Question 33 [1.00 pt(s)]
أي من الإقتراحات التالية تنافى مع واجبات الصيدلي:
- أن يرتدي رداء أبيض يحمل اسمه ولقبه
- أن يعلن على واجهة الصيدلية العنوان التجاري واسم ولفق صاحبها
- أن يتواءد بنفس ساعات خلال دوام العمل
- أن يرشد طلاب الصيدلي و تكون لهم مثالا

Question 34 [1.00 pt(s)]
LAN النقابة الأساسية هم:
- فنية/استشارية/إدارة
- مالية/إدارة/تقنية
- مالية/إدارة/علمية
- استشارية/إدارة/علمية

Question 35 [1.00 pt(s)]
الراتب النقاعدي:
- يزيد حسب سنوات الخدمة
- يزيد حسب قيمة الخدمة
- هو نفسه لجميع المنفاعين
- لا يزيد أبدًا

Question 36 [1.00 pt(s)]
لا يسمح بفتح صيدلية إلا بترخيص من:
- وزارة الصحة
- نقابة الصيدلة
- وزارة الصحة ونقابة الصيدلة
- الجمعية العمومية

Question 37 [1.00 pt(s)]
يحق للمصلي أن:
- يملك صيدلية واحدة فقط
- يملك أكثر من صيدلية
- يملك صيدلية ومستودع أدوية
Question 38 [1.00 pt(s)]

- من يترأس اللجنة الغنية في وزارة الصحة:

[ ] وزير الصحة
[ ] مدير عام وزارة الصحة
[ ] رئيس دائرة الإستيراد
[ ] نقيب الصيادلة

Question 39 [1.00 pt(s)]

ما هي الشروط للإستفادة من صندوق التغاعد:

[ ] الإندباض إلى النقابة
[ ] الإندباض إلى النقابة ودفع الإشراك السوي
[ ] الإندباض إلى النقابة ودفع رسوم النقاعد
[ ] لا يهم

Question 40 [1.00 pt(s)]

إنشاء مصنع للمستحضرات الميدلانية ينطلق:

[ ] إذن من وزارة الصناعة
[ ] إذن من وزارة الصحة
[ ] إذن من وزارة الصناعة ووزارة الصحة
[ ] إذن من نقابة الصيادلة

Question 41 [1.00 pt(s)]

إفادة النجاح بالكولوكيوم تعطى من:

[ ] نقابة الصيادلة
[ ] وزارة الصحة
[ ] وزارة التعليم العالي
[ ] الجامعة اللبنانية

Question 42 [1.00 pt(s)]

- لا يعطى ترخيص بفتح صيدلية قبل:

[ ] إبداؤ رأي نقيب الصيادلة
[ ] إبداؤ رأي مجلس النقابة
[ ] إبداؤ رأي صندوق النقاعد
[ ] إبداؤ رأي وزير الصحة

Question 43 [1.00 pt(s)]

ما هو عدد ممثلي مجلس النقابة في اللجنة العلمية?

[ ] 2
[ ] 3
[ ] 4
[ ] 5

Question 44 [1.00 pt(s)]
Question 45 [1.00 pt(s)]

بعد الحصول على الترخيص بنجاح صيدلية، على الصيدلي أن يباشر العمل خلال:

- سنة
- سنة ونصف السنة
- سنتان
- لا يهم

Question 46 [1.00 pt(s)]

عقد الجمعية العامة العادية في الدورة الأولى يعتبر قانونيا بحضور:

- أكثر من نصف الأعضاء
- أكثر من نصف الأعضاء المسisdتين اشتراكهم السنوي
- مما كان عدد الأعضاء الحاضرين
- المبادلة في مجلس النabama فقط

Question 47 [1.00 pt(s)]

ما هو عدد ممثلي النabama في اللجنة الفنية؟

- 1
- 2
- 3
- 4

Question 48 [1.00 pt(s)]

يُنتخب مجلس النabama نائب النقيب وأمين السر وأمين الصندوق لمدة:

- سنة
- سنة قابلة للتجديد
- ثلاث سنوات قابلة للتجديد

Question 49 [1.00 pt(s)]

يُعتبر مجلس النabama مخللا إذا زاد عدد المراكز الشاغرة فيه على:

- 2
- 6
- 8
- 9

Question 50 [1.00 pt(s)]

ما هو الدواء السري؟

- الدواء المجهول التركبة
- الدواء المهرب
Question 51 [1.00 pt(s)]

يجب أن تكون النقيب لولاية مدنها:

- ثلاث سنوات غير قابلة للتجديد
- ثلاث سنوات قابلة للتجديد
- ثلاث سنوات قابلة للتجديد مرة وحدها فقط
- لا مهلة محددة

Question 52 [1.00 pt(s)]

من مهام اللجنة الإدارية في نقابة الصيادلة:

- إدارة أعمال النقيب
- إدارة حلقات اللقاء
- درس ملفات الإشراف
- البحث في الأمور المالية للنقابة

Question 53 [1.00 pt(s)]

في حال أصيب الصيدلي المنتسب إلى نقابة الصيادلة بعجز، يحال إلى التغاعد ومناقض أو
راتبه التغاعدي كاملًا شرطًا:

- أن يكون قد غذى صندوق التغاعد لأكثر من 6 سنوات
- أن يكون قد غذى صندوق التغاعد لأكثر من 8 سنوات
- أن يكون قد غذى صندوق التغاعد لأكثر من 10 سنوات
- لا تهم مدة عدده للصندوق

Question 54 [1.00 pt(s)]

حسب قانون التعليم المستمر الإلزامي، على الصيدلي أن يؤمن سنوياً:

- نقطة إعتماد من ضمنها 5 محجورات حبة 10
- نقطة إعتماد من ضمنها 5 محجورات حبة 15
- نقطة إعتماد من ضمنها 5 محجورات حبة 20
- نقطة إعتماد من ضمنها 5 محجورات حبة 25

Question 55 [1.00 pt(s)]

يطبق التعليم المستمر الإلزامي على:

- الصيادلة المقيمين في لبنان
- الصيادلة العاملين في لبنان
- الصيادلة المقيمين خارج لبنان
- الصيادلة المنتسبين إلى النقابة

Question 56 [1.00 pt(s)]

يشرف على صندوق الإعانة:

- نقب النقابة
- مجلس النقابة
- صندوق التغاعد
- اللجنة المالية
Question 57 [1.00 pt(s)]

يستطيع من تقديم صندوق الأغذية لنظام الاستفساء:

- الميدلي المتعاعد
- الميدلي المتصل إلى التقنية والذي يغطي صندوق التقاعد
- الميدلي المتصل إلى التقنية
- كل الميدالة في لبنان

Question 58 [1.00 pt(s)]

يستوفي صندوق التقاعد رسم على سعر مبيع الدواء إلى العموم من:

- المستوردين ومن الم กร
- من الكابين العلمية
- من المبادلة أصحاب الميدانات
- من كل الميدالة

Question 59 [1.00 pt(s)]

 تستفيد أرملة الميدالي المتقاعد من:

- نتائج المدالية التقاعدية
- نتائج المدالية التقاعدية
- كامل ميدالة المدالية
- لا تستفيد من المعاش

Question 60 [1.00 pt(s)]

 يفقد الولد الذكر حقه في المعاش التقاعدي:

- في عمر ال-۲۱
- في عمر ال-۲۰ شرط أن يكون أنهى دراسته
- في عمر ال-۲۱
- في عمر ال-۲۰ شرط أن يكون أنهى دراسته

Question 61 [1.00 pt(s)]

 في حال فقد أحد الأولاد حقه في المعاش التقاعدي:

- ترجع حصة إلى الأبين
- ترجع حصة إلى والدته
- ترجع حصة إلى الأولاد الآخرين وإلا إلى صندوق التقاعد
- لا ترجع حصة إلى أحد

Question 62 [1.00 pt(s)]

 عملاً بمنحة المادة ۷۲ من قانون مزاولة مهنة الميدالة، تحصر الأذاعة العلمية:

- بالميدالي المتفرغ
- بالميدالي والطبيب المتفرغان
- لا مهم بطلان الفرعاء والكيمياء
- لا مهم

Question 63 [1.00 pt(s)]

 يعطى ترخيص بإنشاء وإستثمار مصنع للمستحضرات الصيدلانية ل:
شيء من أي جنسية كان شرط أن يكون صيدلانياً ولو لم يكون متفرغاً
 شركة لبنانية
 شركة لبنانية تكون أحد الشركاء صيدلانياً لسنا متفرغاً
 من بملك شهادة صيدلة مؤجرة من صيدلي

Question 64 [1.00 pt(s)]

المادة 16 من مزاولة مهنة الصيدلة نص أنه على الصيدلي أن:

- يدير بنفسه أعمال صيدليته، الفنية والعالية
- يوكول الإدارة لشخص آخر
- يوكول الإدارة لصيدلي غير متفرع
- يوكول الإدارة لشخصي سبق واستأجر شهادته

Question 65 [1.00 pt(s)]

يحق للطبيب أن:

- يبيع الدواء إذا كان حائزاً على شهادة في الصيدلة
- يقدم لممرض النماذج الطبية المجانية
- يبيع النماذج الطبية
- يفتح صيدليته بإسمه

Question 66 [1.00 pt(s)]

في الصيدلية، يسمح ببيع الأدوية:

- ولا تحمل اسم المركب ورم الطاقة وتاريخ الصلاحية
- العقار مسجل
- التي تحمل بيان المادة ورم الطاقة وتاريخ الصلاحية
- المنظمة الصلاحية

Question 67 [1.00 pt(s)]

"المادة 80" من قانون مزاولة المهنة تقصي بتحديد سعر مبيع المستحضرات الصيدلانية

بناءً على:

- قرار من نقابة الصيادلة بموجب لجنة تفعيل أسس التسعير
- قرار من وزیر الصحة بموجب لجنة تفعيل أسس التسعير
- قرار من وزیر الصحة بناءً على السعر العالمي للدواء
- قرار من نقابة الصيادلة بناءً على السعر العالمي للدواء

Question 68 [1.00 pt(s)]

يمنع الجمع بين مزاولة مهنة الصيدلة وأي وظيفة أخرى بامتلاء:

- وظيفة رسمية مدنية أو عسكرية
- وظيفة مدنية أخرى
- وظيفة خارج الأراضي اللبنانية
- التسويق الطبي

Question 69 [1.00 pt(s)]

يحق لمصاب الحمضون البيع ل:

- الصيدليات
- الصيدليات وعقوم الناس
- المؤسسات الصيدلية المحارزة
عوم الناس

Question 70 [1.00 pt(s)]

يسمح للمصدر المجار أن:
- يقوم بخدمة ليلة مستمرة في أي صيدليه
- يتولى إدارته صيدليه واحدة فقط
- يكون له مصلحة في صيدليه أخرى غير صيدليته
- أن يؤجر شهادته

Question 71 [1.00 pt(s)]

في حال ناغ الصيدلي المصدر أدوية مزورة و مهربة:
- عاقب بالسجن ويسقط حقه بمزاولة المهنة
- يوجه له إداره خطي
- يوجه له لوم خطي
- يحكم بالإعدام

Question 72 [1.00 pt(s)]

عقوبة ارتكاب الفساد و بيع الأدوية المزورة هي:
- عرابة من 100 إلى 150 مليون ليرة
- حبس من شهرين إلى سنة أشهر
- عرابة من 40 إلى 100 مليون ليرة
- عرابة من 60 إلى 100 مليون ليرة

Question 73 [1.00 pt(s)]

في حال إمتنع المصدر عن بيع الأدوية أو اقفل صيدليته من دون إذن:
- عاقب بالسجن أو عرامات مالية
- يوجه له إداره من الوزارة
- يوجه له إداره من النقابة
- لا يحكم عليه إذ يحقق له بإدارته صيدليته كما يشاء

Question 74 [1.00 pt(s)]

في حال ناغ المصدر أو المستورد الدواء خلافاً للنسبة المحددة:
- توجه له الوزارة إداره خطي
- يدفع عرابة مالية يحقق للوزارة أن صادر الأدوية
- يحال إلى مجلس التأديب في نقابة الصيادلة
- يحال إلى القضاء

Question 75 [1.00 pt(s)]

يحق للمصدرصاحب المصدر أن:
- يدير أكثر من صيدليه
- يقوم بعمل آخر له ملء له مهنة الصيدلة
- أن يقوم بالإشراف التكويني على الأدوية الأساسية في المراكز المعتمدة للرعاية الصحية الأولية
- يتعاقد مع مؤسسات معينة

Question 76 [1.00 pt(s)]
يمكن للصيدلي أن:

- عبر اسمه لفتح صيدلية شرط أن يكون له حصة في الارباح.
- يشارك من بريد لفتح صيدلية شرط أن يكون موظواً عن الآدابة.
- يندرس على الا يشارك الدائن، أما كانت سمعه الدين، في إدارة أعمال صيدلية مدينهم واستمترها.
- يشارك مع مساعدته أخر في فتح أكثر من صيدلية واحده

Question 77 [1.00 pt(s)]

إن تجارة النباتات الطبيعية التي لها صفة علاجية:

- هي من حصة كل الناس إذا كانت مسجلة
- هي من حصة للصيدلي إذا كانت مسجلة
- هي من اختصاص المطلة
- لا يحق المناجرة بالأغذية

Question 78 [1.00 pt(s)]

إذا رأى الصيدلي خطاً في كتابة الوصفة الطبية يمكن للصيدلي أن:

- يصحح أي خطأ في الوصفة الطبية دون العودة إلى الطبيب.
- يصرف الدواء الذي يراه مناسب بعد أخذ موافقة المرض.
- يغلق نظر الطبيب على الخطا.
- يصرف الدواء حسب ما يراه مناسبًا.

Question 79 [1.00 pt(s)]

إذا منع الصيدلي عن دفع المتوجب عليه لصندوق النقاعد:

- يسجل لمدة 3 أشهر.
- يطلب إسمه من النقابة بعد انتهاءكتاب ممتنون.
- يسجِّل منه إذن مزاولة المهنة.
- يوجه إليه اللوم.

Question 80 [1.00 pt(s)]

يمكن للصيدلي القانوني اللبناني المتفرغ أن:

- يحصل على رخصة صيدلية شراكة مع صيدلي قانوني متفرغ.
- يعطي شهادته لشخص غير صيدلي على أن ينافد الإداراة الطبية للصيدلي فقط.
- يستحق على رخصة صيدلية شراكة مع شخص غير صيدلي.
- يكون هناك لأكثر من صيدلية.

Question 81 [1.00 pt(s)]

كل الشروط التالية تنطبق على الصيدلية التابعة لمستشفى إلا:

- يديرها صيدلي محتر.
- لها رخصة على الطريق.
- تنبع الأدوية للمريض خلال اقامتهم في المستشفى فقط.
- تشرف على النظام الصحى في إعطاء الأدوية.

Question 82 [1.00 pt(s)]

يفرض مجلس النقابة العرّامات على الصيدلاء المخالفين:

- يناء على شكو من صيدلي آخر.
- يناء على شكو من المواطنين.
Question 83 [1.00 pt(s)]

تشمل مهام أمين صندوق التقاعد كل ما يلي إلا:

- أن يباشر إلى دفع المبالغ من موارنة الصندوق
- أن يولِى أمانة صندوق الإعانة
- أن يتعلم المجلس على الوضع المالي للصندوق مرة كل 3 أشهر
- أن يدقق في الحسابات المالية

Question 84 [1.00 pt(s)]

ما هو عدد الموظفين غير المتبادل في الصيدلية، لكل ميدلي:

- 2
- 3
- 4
- 5

Question 85 [1.00 pt(s)]

يشترط للمدير الفني في مصنع أن يكون:

- صيدلي متقاعد
- صيدلي متغلب
- شريك في العمل
- أي شخص كان

Question 86 [1.00 pt(s)]

عن التصويت على قرار في مجلس النقابة، وفي حال تعادل الأصوات:

- يعاد التصويت
- يكون صوت النقيب مرجح
- يلغى التصويت على القرار
- تعاد الإنتخابات

Question 87 [1.00 pt(s)]

يمكن للمصلي أن يصنع نطق مجلس التأديب ضمن مهلة:

- أسبوع من تاريخ صدور القرار
- 10 أيام من تاريخ تبلغ القرار
- 10 يوم من تاريخ صدور القرار
- 15 يوم من تاريخ تبلغ القرار

Question 88 [1.00 pt(s)]

ما هو الراتب الشهري الأدنى الذي يحسب على أساسه المصلي في صندوق التقاعد:

- 1,800,000
- 2,100,000
- 2,500,000
Question 89 [1.00 pt(s)]

يسمح للصيدلي بالإعلان عن الاسم التجاري ليسامحة:

- على واحة الصيدلة فقط
- من الصيدلة على لوجة ضمن مسافات 500 متر
- من الصيدلة على لوجة ضمن مسافات 100 متر
- في وسائل الإعلام

Question 90 [1.00 pt(s)]

تعطي رخصة فتح صيدلية معينة من قبل:

- المعهد المالي
- وزارة الصحة
- نقابة الصيدلة
- وزارة المالية

Question 91 [1.00 pt(s)]

لا يحق للصيدلي القانوني اللبناني المتغرن أن:

- يستحسن على رخصة صيدلية إذا كانت شراكة مع صيدلي قانوني متغرن اخر
- يعطي شهادة لغير صيدلي على أن تنافع الإدارة الفنية به فقط
- يستحسن على رخصة صيدلية بمفرده
- أن يعمل بشكل تطوعي في مستوصف أدوية

Question 92 [1.00 pt(s)]

اللجنة التي تنظر في ملف ترخيص الدواء في وزارة الصحة في لبنان هي:

- لجنة الدواء
- اللجنة الفنية
- لجنة الإسبراد
- لجنة الإدارة

Question 93 [1.00 pt(s)]

المدة الأقصى لتعيين الصيدلي صاحب صيدلية عن صيدلاته هي:

- 12 شهرًا
- 16 شهرًا
- 18 شهرًا
- 21 شهرًا

Question 94 [1.00 pt(s)]

يمكن للميلي أن:

- يعبر اسمه لفتح صيدلية شرط أن يكون له حصة في الارباح
- يعقد اتفاقيات مع شركة معينة
- يبدء في الارباح، إما كانت صده الدين، في إدارة اعمال صيدلية مدينهم واستمارةها
- يقوم بالدعاية لصيدلاته لدى الأطباء
Question 95 [1.00 pt(s)]

المادة 80 من قانون مزاولة مهنة الصيدلة في لبنان يتعلق ب:

- تسعيرة الدواء
- النفقات
- العقوبات
- الرسوم

Question 96 [1.00 pt(s)]

منى يسقط حق المبديلي بالإستفادة من التأمين الصحي والاستشفاء:

- بعد التوقف عن تغذية صندوق التغذية لمدة تزيد عن الثمانية عشر شهرًا
- بعد التوقف عن تغذية صندوق التغذية لمدة تزيد عن سنة
- بعد التوقف عن تغذية صندوق التغذية لمدة تزيد عن ستة أشهر

Question 97 [1.00 pt(s)]

كل هذه الشروط واجب توفرها في المبديلي اللبناني باستثناء:

- أن يكون جنازة على شهادة البكالوريا اللبنانية القسم الثاني أو ما يعادلها
- أن لا يكون محكوما عليه بح判ية من أي نوع كان
- أن يكون قد أمضى الثامنة عشرة من عمره
- أن يتحار بناج امتحان الكولوكيوم
PART 1 (Pharmacology and Clinical Pharmacy - MCQ)

Question 1 [1.00 pt(s) ]
Which of the following side effects of chlorpromazine and phenothiazine neuroleptics is explained by their antidopaminergic action?

- Dry mouth
- Eruptions
- Extrapyramidal syndrome
- Constipation

Question 2 [1.00 pt(s) ]
Which of the following statements of clonidine is false?

- It is a centrally acting antihypertensive
- It increases vagal tone
- It can be given in the treatment of opioids “withdrawal
- It is contra-indicated in angina

Question 3 [1.00 pt(s) ]
Which of the following statements of metoclopramide is FALSE

- Is an antiemetic
- Reduces antral contractions
- Increases the pressure of the lower esophageal sphincter
- May be responsible for dyskinesias

Question 4 [1.00 pt(s) ]
Which of these medications is not an enzyme inducer?

- Carbamazepine
- Rifampin
- Phenytoin
- Erythromycin

Question 5 [1.00 pt(s) ]
Which of the following effects is not observed during the treatment with parasympatholytic drugs
Question 6 [1.00 pt(s)]

Adding adrenaline to a lidocaine solution to be administered by subcutaneous injection can prolong the duration of local anesthesia by:

- Decreased permeability of the vascular endothelium
- Precipitation of lidocaine
- Changing the pH of the solution
- Local Vasoconstriction

Question 7 [1.00 pt(s)]

What is the side effect that is not observed during the treatment with tricyclic antidepressants?

- Dry mouth
- Myocardial toxicity
- Skin Pigmentation
- Seizure threshold lowering

Question 8 [1.00 pt(s)]

What is the property that benzodiazepines do not have?

- Antidepressant
- Anticonvulsant
- Amnesic
- Muscle Relaxant

Question 9 [1.00 pt(s)]

The stimulation of beta-adrenergic receptors causes:

- Miosis
- Bronchoconstriction
- Relaxation of the uterus
- Vasoconstriction

Question 10 [1.00 pt(s)]

The pseudo-parkinsonian syndrome can be observed after the treatment with the following medication:

- Valproic Acid
- Diazepam
- Haloperidol
- Clomipramine

Question 11 [1.00 pt(s)]

What is the side effect that is not be observed during the treatment with Levodopa?

- Dyskinesias
Confusion
Nausea and vomiting
Impotence

Question 12 [1.00 pt(s) ]

Which of these treatments is not part of the therapeutic arsenal of acne?

- Retinoids
- Benzoyl peroxide
- Topical macrolide
- Metronidazole

Question 13 [1.00 pt(s) ]

What is the therapeutic class that does not have anticholinergic properties?

- Tricyclic antidepressants
- Digitalis
- Antiparkinsonism
- Digestive antispasmodics

Question 14 [1.00 pt(s) ]

What is the process that may not be adopted to prevent the nephrotoxicity of aminoglycosides?

- Maintain diuresis with furosemide
- Monitoring residual serum
- Adaptation of doses according to the creatinine clearance
- Correction of any dehydration

Question 15 [1.00 pt(s) ]

The use of trihexyphenidyl in a Parkinson's patient:

- Acts on dopamine receptors
- Acts on the cholinergic system
- Facilitates the release of dopamine
- Causes miosis

Question 16 [1.00 pt(s) ]

Valproic acid has all of the following side effects except:

- Sedation
- Thrombocytopenia
- Hypothyroidism
- Hepatotoxicity

Question 17 [1.00 pt(s) ]

The following agent can be used as a mood stabilizer in bipolar disorder treatment except:

- Valproic acid
Carbamazepine
Lithium
Phenytoin

**Question 18 [1.00 pt(s)]**

What is the state that should not necessarily be performed prior to initiating lithium treatment as mood stabilizers treatment?

- Thyroid function tests
- Liver function tests
- Cardiac function tests
- Blood electrolytes levels tests (to mainly check serum sodium)

**Question 19 [1.00 pt(s)]**

The increase in the toxicity of anticoagulants and oral sulfonylureas when combined with a non-steroidal anti-inflammatory drug is due to:

- Enzyme-inhibition
- Plasma proteins interaction
- Plasma transporters interactions (P-gp, BCRP)
- Enzyme induction

**Question 20 [1.00 pt(s)]**

The bioavailability of a drug administered by direct intravenous route is:

- 100%
- 0%
- Dependent on the half-life of the drug
- Is unpredictable

**Question 21 [1.00 pt(s)]**

Which of the following anti-infective drugs is not contra-indicated with alcohol?

- Metronidazole
- Ketoconazole
- Amoxicillin + clavulanic acid
- Tinidazole

**Question 22 [1.00 pt(s)]**

Which of the following molecules is not recommended for the treatment of *Pseudomonas aeruginosa* infections?

- Ceftazidime
- Piperacillin + Tazobactam
- Cefotaxime
- Cefepime

**Question 23 [1.00 pt(s)]**
Which of the following molecules is not recommended for the treatment of E. coli beta-lactamase carrying extended spectrum

- Cefepime
- Cetriaxone
- Imipenem
- Amikacin

**Question 24 [1.00 pt(s)]**

Which of the following molecules is not recommended in the treatment of Staphylococcus aureus resistant to methicillin (MRSA)?

- Vancomycin
- Imipenem
- Teicoplanine
- Tygecycline

**Question 25 [1.00 pt(s)]**

The following antibiotics are capable of inducing nephrotoxicity even in patients with normal renal function:

- Quinolones
- Macrolides
- Aminoglycosides
- B-lactams

**Question 26 [1.00 pt(s)]**

What is the antibiotic that cannot be the cause of QT prolongation with risk of torsades de Pointe and cardiac arrest?

- Azithromycin
- Amikacin
- Levofoxicin
- Clarithromycin

**Question 27 [1.00 pt(s)]**

Heparin is capable of inducing:

- Agranulocytosis
- acute renal failure
- Thrombocytopenia
- Liver failure

**Question 28 [1.00 pt(s)]**

Which of the following is not an indication of opiate antagonists (naloxone and naltrexone)?

- Treatment of opioid withdrawal symptoms
- Treatment of alcohol withdrawal symptoms
- Treatment of morphine overdose
Treatment of cocaine intoxication

**Question 29 [1.00 pt(s)]**

A drug that is used safely in hypertensive patients with ischemic heart disease:

- lisinopril
- minoxidil
- phentolamine
- diazoxide

**Question 30 [1.00 pt(s)]**

A diuretic that inhibits carbonic anhydrase enzyme in the proximal tubular epithelial cells:

- amiloride
- acetazolamide
- hydrochlorothiazide
- furosemide

**Question 31 [1.00 pt(s)]**

In case of an acute anginal attack, you should dispense which of the following drugs?

- isosorbide mononitrate
- amlodipine
- nitroglycerin
- propranolol

**Question 32 [1.00 pt(s)]**

In case of Prinzmetal's angina, which of the following drugs is NOT used?:

- propranolol
- diltiazem
- isosorbide dinitrate
- amlodipine

**Question 33 [1.00 pt(s)]**

What is the target of action of fluoroquinolones:

- the topoisomerases
- ribosomes
- PBP-membrane
- integrases

**Question 34 [1.00 pt(s)]**

Which antibiotic produces crystalluria?
Penicillin
- Sulfamethoxazole
- Doxycycline
- Gentamycin

**Question 35 [1.00 pt(s)]**

Which of the following is NOT a pharmacological action of digitalis?

- positive chronotropic effect
- positive inotropic effect
- increase in renal blood flow
- decrease in preload

**Question 36 [1.00 pt(s)]**

Zidovudine is a (n):

- antiprotease
- antibacterial
- reverse transcriptase inhibitor
- integrase inhibitor

**Question 37 [1.00 pt(s)]**

A chronic hypertensive pregnant woman may be treated as a first choice with:

- candesartan
- fosinopril
- methyldopa
- hydralazine

**Question 38 [1.00 pt(s)]**

Progesterone:

- acts upon membrane receptors
- is never used alone without estrogen
- increases the risk of endometrial cancer
- dominates the luteal phase

**Question 39 [1.00 pt(s)]**

Triphasic contraceptive pills:

- contain 3 active molecules
- release the active ingredients in 3 phases
- contain different hormone concentrations according to the cycle
- are intended for women who smoke

**Question 40 [1.00 pt(s)]**
A drug that is NOT used as a first line therapy for hypertriglyceridemia is:

- clofibrate
- lovastatin
- niacin
- cholestyramine

**Question 41** [1.00 pt(s)]

Which of these drugs causes enlargement of the gum:

- phenytoin
- ibuprofen
- tramadol
- captopril

**Question 42** [1.00 pt(s)]

Ethinylestradiol is:

- an endogenous natural molecule
- is secreted by the embryo
- is metabolized by the liver
- is available in contraceptive pills of 35-50 mg concentration

**Question 43** [1.00 pt(s)]

Losartan is a (n):

- beta-blocker
- ACEI
- angiotensin II receptor antagonist
- hypokalaemic diuretic

**Question 44** [1.00 pt(s)]

Atenolol is:

- An ACEI
- A nonselective beta-blocker
- A calcium channel blocker
- More hydrophilic than propranolol

**Question 45** [1.00 pt(s)]

Erectile dysfunction may be caused by:

- sildenafil
- alprostadil
- cimetidine
- goserelin

**Question 46** [1.00 pt(s)]
Regarding calcium channel blockers:

- Verapamil is not an antiarrhythmic
- Nifedipine is an antiarrhythmic
- Amlodipine has a vascular tropism
- Diltiazem is a dihydropyridine

**Question 47 [1.00 pt(s)]**

Regarding anti-diabetic agents:

- Biguanides are less effective than sulfonamides
- Sulfonamides increase insulin secretion
- Biguanides increase insulin secretion
- Glitazones inhibit alpha-glucosidase

**Question 48 [1.00 pt(s)]**

Which of the following is the drug of choice for treatment of amebiasis?

- Metronidazole
- Mebendazole
- Iodoquinol
- Chloroquine

**Question 49 [1.00 pt(s)]**

Which molecule can cause lactic acidosis:

- Glibenclamide
- Pioglitazone
- Repaglinide
- Metformin

**Question 50 [1.00 pt(s)]**

Which of the following viral diseases has no available vaccines?

- Gastroenteritis
- Common cold
- Influenza
- Hepatitis A

**Question 51 [1.00 pt(s)]**

Regarding metformin:

- It is strongly hypoglycemic
- It stimulates SUR1 receptor
- It causes weight gain
- It stimulates glucose utilization by the cells
Question 52 [1.00 pt(s)]

Chronic disseminated candidiasis in stable patients should be primarily treated by:

- griseofulvin
- caspofungin
- fluconazole
- amphotericin B

Question 53 [1.00 pt(s)]

Levodopa:

- Is an anticholinergic
- Is a centrally-acting antidepressant
- Is an antiparkinsonian
- Is transformed into acetylcholine

Question 54 [1.00 pt(s)]

Which of the following is a Leukotriene receptor antagonist:

- Zileutin
- Cromolyn
- Ipratropium
- Montelukast

Question 55 [1.00 pt(s)]

Phenobarbital:

- Has a short half-life
- Is only administered IV
- Is used in neonatal seizures
- Is a prodrug

Question 56 [1.00 pt(s)]

Indicate the drug belonging to proton pump inhibitors:

- Pirenzepine
- Ranitidine
- Omeprazole
- Sodium bicarbonate

Question 57 [1.00 pt(s)]

BNP rises significantly:

- In hypertensive crisis
- In endocarditis
- In stable angina
In heart failure

**Question 58 [1.00 pt(s)]**

Which of the following statements is true for oral hypoglycemics?

- Meglitinide is ineffective in regulating postprandial glucose
- Metformin is suitable for obese patients
- Pioglitazone is harmless to the liver
- Acarbose can be used for diabetic patients suffering from gastrointestinal tract disturbances and flatulence

**Question 59 [1.00 pt(s)]**

Which enzyme level is first elevated in myocardial infarction:

- Troponin-T
- BNP
- LDH
- CK-BB

**Question 60 [1.00 pt(s)]**

Indicate the specific antidote for benzodiazepines:

- Flumazenil
- Buspirone
- Zolpidem
- Triazolam

**Question 61 [1.00 pt(s)]**

Which of the following agents is a selective serotonin reuptake inhibitor (SSRI)?

- Lithium
- Imipramine
- Fluoxetine
- Venlafaxine

**Question 62 [1.00 pt(s)]**

Indicate the drug belonging to antacids:

- Pirenzepine
- Ranitidine
- Omeprazole
- Sodium bicarbonate

**Question 63 [1.00 pt(s)]**

Which of the following drugs does not belong to the class of mucosal protective agents?
Misoprostol
Bisthmus subsalicylate
Sucralfate
Domperidone

**Question 64 [1.00 pt(s) ]**

NYHA stage III in heart failure is characterized by:

- Symptoms on mild effort
- No symptoms
- Chest Pain
- Night-sweats

**Question 65 [1.00 pt(s) ]**

Indicate a peripheral dopa decarboxylase inhibitor:

- Entacapone
- Clozapine
- Carbidopa
- Selegiline

**Question 66 [1.00 pt(s) ]**

Pyelonephritis:

- is always asymptomatic
- is a bladder infection
- is accompanied by fever and chills
- is a viral and non-bacterial infection

**Question 67 [1.00 pt(s) ]**

Nitro derivatives are contra-indicated when:

- Systolic blood pressure <90 mmHg
- Diastolic blood pressure is> 140 mmHg
- The person is diabetic
- The person is dyslipidemic

**Question 68 [1.00 pt(s) ]**

Which of the following antiparkinson drugs is used to treat hyperprolactinemia?

- Benzatropine
- Bromocriptine
- Amantadine
- Levodopa

**Question 69 [1.00 pt(s) ]**

Among these molecules, which is an inhibitor of glycoprotein GPIIb/IIia:
Tirofiban
Prasugrel
Reteplase
Streptokinase

**Question 70** [1.00 pt(s)]

Tamoxifen is classified as:

- Antiprogestin
- Antiandrogen
- Antiestrogen
- Androgen

**Question 71** [1.00 pt(s)]

A 19-year-old male presents to the emergency room with bacterial meningitis. Which of the following Cephalosporin is likely to be given to this patient?

- Cefazolin
- Cefuroxime axetil
- Ceftriaxone
- Cefoperazone

**Question 72** [1.00 pt(s)]

Monitoring the efficacy of a treatment with unfractionated heparin is by:

- INR
- Platelet
- Bleeding time
- PTT

**Question 73** [1.00 pt(s)]

The following is indicated for Attention-Deficit Hyperactivity Disorder (ADHD):

- Methylphenidate
- Olanzepine
- Phenytoin
- Amitryptiline

**Question 74** [1.00 pt(s)]

Which of these molecules is a direct thrombin inhibitor:

- Hirudin
- Eptifibatide
- Amiodarone
- Furosemide
**Question 75** [1.00 pt(s)]

A 37-year-old intravenous drug abuser is admitted for fever and shortness of breath. Multiple blood cultures drawn demonstrate S. aureus resistant to methicillin. Other findings were consistent with endocarditis. Which of the following is an appropriate antibiotic in this case?

- Ceftriaxone
- Imipenem
- Cefazolin
- Daptomycin

**Question 76** [1.00 pt(s)]

Monitoring of the oral anticoagulant anti-vitamin K treatment is by:

- Vitamin K
- INR
- PTT
- Platelet assay

**Question 77** [1.00 pt(s)]

Concerning valproate, which of the following is incorrect?

- It is used for all forms of epilepsy
- It causes thrombocytopenia and hepatotoxicity as side effects
- It can be used safely during pregnancy
- It can be used for the prophylaxis and treatment of manic episodes in patients with bipolar disorder unresponsive to lithium

**Question 78** [1.00 pt(s)]

What is the mechanism of action of ciprofloxacin?

- Inhibition of the 30s ribosome
- Inhibition of the 50s ribosome
- Inhibition of RNA synthesis
- Inhibition of DNA gyrase

**Question 79** [1.00 pt(s)]

In stable angina crisis, which of these is used:

- Nitroglycerin patch
- Subcutaneous isosorbide dinitrate
- Calcium channel blocker patch
- Sublingual nitroglycerin

**Question 80** [1.00 pt(s)]

Which of the following is the drug of choice for a 28-year-old woman with schizoid affective disorder and sleeping difficulty?
Aripiprazole  
Chlorpromazine  
Haloperidol  
Risperidone

**Question 81** [1.00 pt(s)]

The bactericidal antibiotic that interferes with bacterial cell-wall synthesis and that may cause “red mansyndrome” if injected too rapidly is

- Piperacillin  
- Vancomycin  
- Gentamicin  
- Clindamycin

**Question 82** [1.00 pt(s)]

Pregabalin is not indicated for:

- Partial onset seizure  
- Neuropathic pain  
- Fibromyalgia  
- Depression

**Question 83** [1.00 pt(s)]

Which of the following is a side effect of nitrates:

- Methaemoglobinaemia  
- Hypertensive crisis  
- Hyperglycemia  
- Decrease in HDL

**Question 84** [1.00 pt(s)]

The antibiotic that irreversibly inhibits bacterial protein synthesis and whose adverse effects may include ototoxicity and nephrotoxicity is:

- Doxycycline  
- Clarithromycin  
- Gentamicin  
- Clindamycin

**Question 85** [1.00 pt(s)]

Which of the following is NOT recommended for motion sickness?

- Scopolamine transdermal patch  
- Aprepitant  
- Meclizine  
- Diphenhydramine

**Question 86** [1.00 pt(s)]
The antibiotic whose adverse effects include heartburn, photosensitivity, and possible depression of bone growth in young children is:

- Erythromycin
- Tetracycline
- Gentamicin
- Clindamycin

Question 87 [1.00 pt(s)]

DP is a 72 year old man with a documented NSAID-induced ulcer and is H.pylori negative. He must continue the NSAID for osteoarthritis. Which of the following is the recommended medication for ulcer healing and prevention of future ulcers?

- Sucralfate
- Nizatidine
- Aluminum hydroxide
- Pantoprazole

Question 88 [1.00 pt(s)]

Which antifungal drug is matched with its correct mechanism of action?

- Echinocandins inhibit polysaccharide (glucan) synthesis in the cell wall
- Flucytosine binds to the cell membrane
- Fluconazole is an antimetabolite for fungal RNA
- Amphotericin B binds to a cytochrome P450-dependent enzyme

Question 89 [1.00 pt(s)]

Which of the following drugs affecting gastrointestinal function does not cause constipation?

- Anticholinergics
- Magnesium antacids
- Opiates
- Aluminum antacids

Question 90 [1.00 pt(s)]

A high BUN / blood creatinine ratio indicates:

- Hepatic impairment
- Prerenal failure
- A calculus in the urinary tract
- A calculus in the biliary tract

Question 91 [1.00 pt(s)]

A 22-year-old sexually active male presents to his primary care physician with painful urination and urethral discharge. Gram stain of discharge fluid shows gram-negative diplococci. He is given Ceftriaxone for gonococcal infection. What additional medication should he be given?
Question 92 [1.00 pt(s)]

Products such as psyllium, methylcellulose, and polycarbophil are known as:

- Stimulant laxatives
- Bulk-forming agents
- Cathartics
- Lubricants

Question 93 [1.00 pt(s)]

Benzodiazepines act at a specific receptor site:

- GABAergic
- Serotonergic
- Dopaminergic
- Muscarinic

Question 94 [1.00 pt(s)]

What is the mechanism of action of amphotericin B?

- Binds ergosterol
- Inhibits cell wall synthesis
- Inhibits DNA synthesis
- Inhibits squalene epoxidase

Question 95 [1.00 pt(s)]

The benzodiazepines’ action depends on their interaction with which of the following receptors?

- GABA
- Serotonin
- NMDA-glutamate
- Dopamine

Question 96 [1.00 pt(s)]

TG is a 43 year old woman who presents with a 2 week history of epigastric pain and a positive serum antibody for H. pylori. Which of the following would be considered the preferred initial therapy for H. pylori?

- PPI+metronidazole+levofloxacin
- PPI+amoxicillin+levofloxacin
- PPI+amoxicillin+clarithromycin
- PPI+metronidazole+bismuth+tetracycline

Question 97 [1.00 pt(s)]


Which of the following is involved in metronidazole’s action?

- Blocking folic acid synthesis
- Disruption of DNA
- Inhibition of ribosomes
- Inhibition of topoisomerase

**Question 98** [1.00 pt(s)]

Neuropathic pain responds well to:

- Opiates
- NSAIDs
- Paracetamol
- Antiepileptics

**Question 99** [1.00 pt(s)]

An anti parkinsonian agent which acts directly on the dopamine receptor is:

- Levodopa
- Amantadine
- Selegiline
- Bromocriptine

**Question 100** [1.00 pt(s)]

Local adverse effects of inhaled corticosteroids include:

- Oral candidiasis
- Hypertension
- Growth retardation
- Hyperglycemia

**Question 101** [1.00 pt(s)]

Opioid receptors mostly involved in pain are:

- Mu receptors
- Kappa receptors
- Y receptors
- Omega-3 receptors

**Question 102** [1.00 pt(s)]

A 23-year-old woman who underwent an open appendectomy is later found to have a wound infection. A culture grows methicillin-resistant Staphylococcus aureus (MRSA). Which of the following antibiotics would be useful in treating this infection?

- Ceftriaxone
- Dicloxacillin
- Vancomycin
**Question 103** [1.00 pt(s)]

Which of the following medications would be preferred for control of ventricular response in patients with atrial fibrillation and heart failure?

- Diltiazem
- Verapamil
- Digoxin
- Ibutelide

**Question 104** [1.00 pt(s)]

A 78-year-old male is to have his teeth extracted. He also has a history of mitral valve stenosis with mild cardiac insufficiency. Which of the following medications would be the most appropriate for prophylaxis prior to his dental procedure?

- Amoxicillin
- Co-trimoxazole
- Imipenem
- Vancomycin

**Question 105** [1.00 pt(s)]

Methylphenidate is used in the treatment of:

- Schizophrenia
- Refractory depression
- Attention deficit hyperactivity disorder (ADHD)
- Autism

**Question 106** [1.00 pt(s)]

In order to reduce the risk of thromboembolism, a patient on oral contraceptive should be prescribed:

- A combination product with a higher estrogen dose
- A combination product with a higher progestin dose
- A combination product with a lower estrogen dose
- A combination product with a lower progestin dose

**Question 107** [1.00 pt(s)]

Bromocriptine has been recently approved for a new indication:

- Migraine
- Diabetes type II
- Heart failure
- Anxiety

**Question 108** [1.00 pt(s)]

A woman who has been taking an oral contraceptive (estrogen plus
progestin) for several years is diagnosed with epilepsy and started phenytoin. What is the most likely consequence of adding phenytoin?

- Agranulocytosis or aplastic anemia, requiring stopping both drugs immediately
- Breakthrough seizures from increased phenytoin clearance
- Reduced contraceptive efficacy
- Thromboembolism from the estrogen component of the contraceptive

**Question 109** [1.00 pt(s)]

The mechanism of antibacterial action of tetracycline involves

- Binding to a component of the 50S ribosomalsubunit
- Inhibition of translocase activity
- Blockade of binding of aminoacyl - tRNA to bacterial ribosomes
- Selective inhibition of ribosomal peptidytransferases

**Question 110** [1.00 pt(s)]

A preferred therapeutic regimen in breast cancer is:

- Cyclophosphamide + doxorubicin followed by paclitaxel
- Cisplatin + etoposide
- Melphalan + prednisone
- Cyclophosphamide + dexamethasone+ thalidomide

**Question 111** [1.00 pt(s)]

Which of the following drugs, administered orally, is most likely to be effective in the treatment of colitis due to C difficile?

- Ampicillin
- Cefazolin
- Clindamycin
- Metronidazole

**Question 112** [1.00 pt(s)]

Which of the following statements is correct about metformin?

- Metformin can be used in patients with chronic kidney disease
- Metformin may cause diarrhea when it is initially taken
- Metformin-induced hypoglycemia should be treated with glucose
- Metformin is safely used in decompensated heart failure

**Question 113** [1.00 pt(s)]

Which of the following is a common side effect of high dose cytarabine?

- Otitis
- Nephrotoxicity
- Constipation
- Conjunctivitis
Question 114 [1.00 pt(s)]

Which of the following oral glucose lowering agents stimulate insulin secretion and cause hypoglycemia?

- Sulfonylureas
- Biguanides
- DPP-4 inhibitors
- Thiazolidinediones

Question 115 [1.00 pt(s)]

Which of the following drugs may be used to quickly relieve tremor, palpitations, anxiety, and heat intolerance seen in patients with hyperthyroidism?

- Radioactive iodine
- Propylthiouracil
- Methimazole
- Propranolol

Question 116 [1.00 pt(s)]

A 19-year-old male with asthma presents to your pharmacy with oropharyngeal candidiasis (OPC). Which of the following medications is responsible for OPC?

- Albuterol
- Budesonide
- Ipratropium
- Theophylline

Question 117 [1.00 pt(s)]

A female patient taking doxycycline in attempt to treat acne vulgaris should be given all of the following advices EXCEPT:

- Excess intake of this drug can expose you to unnecessary harm and can render your skin flora resistant to treatment
- Stop doxycycline in case pregnancy is anticipated
- The usual dose is 50-100 mg twice per day
- Space doxycycline from food to enhance its absorption

Question 118 [1.00 pt(s)]

Which of the following insulin preparations has a cloudy appearance?

- Detemir
- Regular
- Gliargine
- NPH

Question 119 [1.00 pt(s)]

Which of the following antiflatulents is usually added to antacid?
Alginic acid
Sucralfate
Simethicone
Misoprostol

Question 120 [1.00 pt(s)]

The preferred treatment option for an infant with mild diaper dermatitis is:

- Acyclovir cream
- Nystatin ointment
- Clotrimazole cream
- Zinc oxide paste

Question 121 [1.00 pt(s)]

The most feared adverse effect of Methimazole is:

- Hepatotoxicity
- Agranulocytosis
- Anaphylaxis
- Blurred vision

Question 122 [1.00 pt(s)]

Which of the following is an analgesic and antipyretic drug that lacks an anti-inflammatory action?

- Acetaminophen
- Celecoxib
- Colchicine
- Indomethacin

Question 123 [1.00 pt(s)]

Which of the following is the correct non-prescription dose of loperamide?

- 2mg q 6 hrs
- 2 mg initially, then 1 mg prn
- 2 mg initially, then 1 mg after every loose stool
- 4 mg initially, then 2 mg after every loose stool

Question 124 [1.00 pt(s)]

Metronidazole should not be used with alcohol because of fear of which of the following possible side effect?

- Disulfiram like reaction
- Hypertensive crisis
- Serotonergic syndrome
- Hyponatremia

Question 125 [1.00 pt(s)]
Which drug would be most suitable for the relief of some of the signs and symptoms of encephalopathy in alcoholic patients?

- Esmoprazole
- Lactulose
- Propranolol
- Otreotide

**Question 126 [1.00 pt(s)]**

Among NSAIDS, aspirin is unique because it

- Irreversibly inhibits its target enzyme
- Prevents episodes of gouty arthritis with long term use
- Reduces fever
- Selectively inhibits the COX-2 pathway

**Question 127 [1.00 pt(s)]**

A patient with tuberculosis treated with isoniazide develops paresthesias, muscle aches, and unsteadiness. Which of the following vitamins should be given in order to reverse these symptoms?

- Vitamin A
- Vitamin B1
- Vitamin B6
- Vitamin K

**Question 128 [1.00 pt(s)]**

When counseling on the adequate administration of pantoprazole what would you recommend?

- Take the tablet when needed, when you experience the symptoms
- Take the tablet 30 minutes before breakfast
- Take one tablet after each meal
- Take the tablet any time during the day irrespective of meals

**Question 129 [1.00 pt(s)]**

Which of the following statements about celecoxib is true?

- It irreversibly acetylates the COX-2 enzyme
- It inhibits both the inducible and constitutive COX-2 enzyme
- It does not produce GI bleeding
- It increases healing of GI ulcers

**Question 130 [1.00 pt(s)]**

A patient is taking proton pump inhibitor plus bismuth, metronidazole and tetracycline. What is the most likely condition for which this drug combination is being used?

- Antibiotic-associated pseudomembranous colitis
Irritable bowel syndrome
Gastric ulcers secondary to Helicobacter pylori
Gastric ulcer that occurred in response to high dose NSAID therapy for arthritis

**Question 131** [1.00 pt(s) ]

A 45-year-old male wishes to take a nonsteroidal anti-inflammatory drug and wants to avoid gastrointestinal side effects. Which one of the following drugs is most appropriate?

- Aspirin
- Celecoxib
- Ibuprofen
- Piroxicam

**Question 132** [1.00 pt(s) ]

Which one of the following drugs is not useful in dysmenorrhea?

- Aspirin
- Colchicine
- Ibuprofen
- Naproxen

**Question 133** [1.00 pt(s) ]

A patient admitted to the gastroenterology service is being treated with sulfasalazine. What is the most likely purpose for this drug to be given?

- Antibiotic-associated pseudomembranous colitis
- Echerichia coli-induced diarrhea
- Gastric H. pylori infections
- Inflammatory bowel disease

**Question 134** [1.00 pt(s) ]

Which of the following laxatives is used to treat acute constipation since it produces a bowel movement within about 30 minutes?

- Psyllium
- Lactulose
- Glycerin
- Docusate

**Question 135** [1.00 pt(s) ]

What is the mechanism of action of ondansetron?

- Blocking central serotonin (5-HT3) receptors
- Blocking dopamine receptors
- locking histamine H1 receptors in the brainstem and inner ear
- Suppressing gastric motility and acid secretion via muscarinic blockade

**Question 136** [1.00 pt(s) ]
Which of the following medications can be safely used in pregnant patients during the third trimester?

- Acetaminophen
- Nonsteroidal anti-inflammatory drugs
- Warfarin
- Aspirin

Question 137 [1.00 pt(s)]

A pharmacist received a prescription for Alendronate 35 mg once weekly for prevention of osteoporosis with instructions to the patient to take with food and remain upright for at least 30 minutes following ingestion. Which of the following can be used to correct the above prescription?

- Alendronate should be taken at least 30 minutes after a meal, preferably breakfast
- Alendronate should be taken before bedtime
- Patients should lie down for 1 hour following administration of Alendronate
- Alendronate should be taken without food in the early morning

Question 138 [1.00 pt(s)]

Celecoxib is preferred to standard NSAIDs:

- in patients who have cardiac failure
- in patients who are at high risk of developing gastroduodenal ulcer
- when onset of pain relief is required immediately
- in patients with myocardial infarction

Question 139 [1.00 pt(s)]

Morphine is contraindicated in head injury because

- It does not relieve the pain of head injury
- It can raise intracranial tension
- It can raise systolic blood pressure
- It is liable to cause addiction

Question 140 [1.00 pt(s)]

Which of the following is proper nutrition counseling for patients who are being treated with warfarin?

- Avoid all foods containing vitamin K
- Avoid excessive alcohol intake as it decreases the effectiveness of warfarin
- Maintain a consistent dietary vitamin K intake
- Maintain current diet because vitamins and dietary supplements minimally interact with warfarin

Question 141 [1.00 pt(s)]

L.R is a 60 year old man with a history of Atrial Fibrillation, Diabetes Mellitus and Hypertension. The cardiologist would like to start the patient on primary stroke prevention. His creatinine clearance is around 15ml/min and normal Liver function tests. Which of the following is the most
appropriate recommendation?

- Warfarin
- Dabigatran
- Rivaroxaban
- ASA + Clopidogrel

**Question 142 [1.00 pt(s)]**

A 59 year old male with a previous history of diabetes mellitus and hypertension is admitted to the hospital with an ST elevation myocardial infarction (MI). Which of the following medications should be part of his medical regimen upon discharge?

- Lorazepam
- Bisoprolol
- Ibuprofen
- Furosemide

**Question 143 [1.00 pt(s)]**

A 42-year-old female who recently lost her husband tells you that she is not sleeping at night. After questioning her further, you determined that she does not have depression or substance abuse. What would you recommend?

- A long acting Benzodiazepine
- A short-acting Benzodiazepine
- Fluoxetine
- Trazodone

**Question 144 [1.00 pt(s)]**

A 57-year-old male with alcoholic cirrhosis and abdominal ascites presents to the Emergency room with a 3 day history of fever, chills, nausea/vomiting and abdominal pain. Paracentesis was performed and revealed a cloudy ascitic fluid. The ascitic fluid was sent for culture and cytology. The best empirical antibiotic regimen for this patient is:

- Azithromycin
- Cefepime
- Amoxicillin
- Ceftriaxone

**Question 145 [1.00 pt(s)]**

A 19 year-old pregnant female presents to your pharmacy with symptoms of dysuria, urinary frequency and urgency. Which of the following is the best empirical antibiotic agent for her cystitis?

- Ciprofloxacin
- Sulfamethoxazole/trimethoprim
- Nitrofurantoin
- Vancomycin

**Question 146 [1.00 pt(s)]**
A 23 year-old male patient who got bitten by his friend’s dog 2 days ago. He presents today with a non-healing wound draining purulent material. Which of the following is the most appropriate antimicrobial treatment?

- Amoxicillin/clavulanic acid
- Doxycycline
- Sulfamethoxazole/trimethoprim
- Erythromycin

**Question 147** [1.00 pt(s)]

A female presents to the clinic at 19 weeks of gestation complaining of fever, burning sensation upon urination. She is allergic to penicillin. Which of the following antibiotics would you recommend?

- Amoxicillin/Clavulanic acid
- TMP/SMX
- Nitrofurantoin
- Levofloxacín

**Question 148** [1.00 pt(s)]

A 29-year old pregnant female has a history of asthma and becomes short of breath when she exercises. What agent would you recommend to prevent this patient’s exercise-induced asthma?

- Zileuton
- Albuterol
- Cromolyn
- Formeterol

**Question 149** [1.00 pt(s)]

Which of the following side effect is MOST likely to result from the use of Metformin?

- Edema
- Cardiac toxicity
- Gastrointestinal disturbances
- Hyperkalemia

**Question 150** [1.00 pt(s)]

What is the effect of prolonged estrogen exposure unopposed by progesterone on the endometrium?

- Metabolic syndrome
- Dysmenorrhea
- Endometrial hyperplasia
- Endometriosis

**Question 151** [1.00 pt(s)]

Which of the following classes of medications is MOST likely to cause drug-induced hyperprolactinemia?
Question 152 [1.00 pt(s)]

Which of the following is NOT a rapid acting insulin analog?

- Insulin LisPro
- Insulin Glulisine
- Insulin Glargine
- Insulin Aspart

Question 153 [1.00 pt(s)]

Which statement about fluconazole is accurate?

- Does not penetrate the blood-brain barrier
- Has the least effect of all azoles on hepatic drug metabolism
- Is an inducer of hepatic drug-metabolizing enzymes
- Is highly effective in the treatment of aspergillosis

Question 154 [1.00 pt(s)]

Regarding the clinical use of liposomal formulations of amphotericin B, which statement is accurate?

- They do not affect the infusion-related toxicity
- They are less expensive to use than conventional amphotericin
- They are more effective in fungal infections because they increase tissue uptake of amphotericin B
- They decrease the nephrotoxicity of amphotericin B

Question 155 [1.00 pt(s)]

Which of the following drug-mechanism of action pairs is properly matched?

- Digoxin – inhibits Ca2+ channel
- Dobutamine – activates beta 1 adrenergic receptors
- Valsartan – blocks beta 2 adrenergic receptors
- Spironolactone – reduces angiotensin II

Question 156 [1.00 pt(s)]

Lidocaine:

- Is a class III anti-arrhythmic
- Is administered IV
- Is renally eliminated
- Blocks Ca2+ currents

Question 157 [1.00 pt(s)]
This antiarrhythmic is associated with potentially fatal pulmonary fibrosis:

- Propranolol
- Mexiletine
- Flecainide
- Amiodarone

**Question 158 [1.00 pt(s) ]**

This beta-lactam is effective against pseudomonas Aeruginosa:

- Carbenicillin
- Ampicillin
- Nafcillin
- Ceftaroline

**Question 159 [1.00 pt(s) ]**

Which of the followings is not an opioid analgesic?

- Morphine sulfate
- Oxycodone
- Diclofenac
- Fentanyl

**Question 160 [1.00 pt(s) ]**

Methadone is often used in drug treatment programs for narcotic addiction. What is the classification of this medication?

- Non-steroidal anti-inflammatory
- Opioid analgesic
- Antimigrainous agent
- Agent for gout

**Question 161 [1.00 pt(s) ]**

What is the classification of olanzapine?

- Antidepressant
- Antipsychotic
- Antiepileptic
- Hypnotic

**Question 162 [1.00 pt(s) ]**

What is the mechanism of action of ramelteon?

- Catechol-O-methyl transferase (COMT) Inhibitor
- Melatonin receptor agonist
- Antipsychotic drug
- Selective serotonin reuptake inhibitor (SSRI)
Question 163 [1.00 pt(s)]

Which one of the following drugs does NOT bind to plasma protein to a significant extent?

- ketoprofen
- allopurinol
- propranolol
- warfarin

Question 164 [1.00 pt(s)]

A 53-year-old woman ingests half of a bottle of aspirin tablets and later presents to the emergency department with gastrointestinal pain and vomiting. The treatment of this patient would include administration of:

- Sodium bicarbonate because it increases ionization of salicylate in the urine
- Sodium bicarbonate because it decreases ionization of salicylate in the urine
- Ascorbic acid because it increases ionization of salicylate in the urine
- Ascorbic acid because it decreases ionization of salicylate in the urine

Question 165 [1.00 pt(s)]

A 33-year-old woman is brought to the emergency department after ingesting a large but unknown quantity of acetaminophen. Use of N-acetylcysteine in the treatment of this patient is based on the goal of:

- Inhibiting drug absorption
- Increasing drug elimination
- Inactivating a toxic metabolite
- Decreasing target receptor binding

Question 166 [1.00 pt(s)]

Topical ocular administration of either phenylephrine or tropicamide may cause:

- Cycloplegia
- Miosis
- Mydriasis
- Cycloplegia and Miosis

Question 167 [1.00 pt(s)]

Gastrointestinal decontamination efficacy varies based on:

- Time of chemical ingestion
- Response to the ingested chemical
- Toxicant serum levels
- Metabolism of toxicants

Question 168 [1.00 pt(s)]

Ipecac is contraindicated in patients:
With a gag reflex
- Expected to become unresponsive within next four hours
- Debilitated, pregnant, and elderly
- Cardiovascular patients

**Question 169** [1.00 pt(s)]

Decrease absorption of toxin include:

- Diuresis
- Manipulation of urine pH
- Activated Charcoal
- Hemodialysis

**Question 170** [1.00 pt(s)]

The antidote that is used in the management of the intoxication by Opiates is:

- Oxygen
- Naloxone
- Physostigmine
- Atropine

**Question 171** [1.00 pt(s)]

Narcotic toxidrome include:

- Salivation
- Lacrimation
- Hypertension
- Respiratory depression

**Question 172** [1.00 pt(s)]

Which one of the following drugs is most likely to cause metabolic acidosis?

- Theophylline
- Nicotine
- Levothyroxine
- Acetazolamide

**Question 173** [1.00 pt(s)]

Which of the followings is NOT a known adverse effect of cyclosporine?

- Hirsutism
- Nephrotoxicity
- Gingival hyperplasia
- Oral ulceration

**Question 174** [1.00 pt(s)]

Which of the following drugs will not require renal adjustment in patients
with declined kidney functions?

- Allopurinol
- Atorvastatin
- Mepiridine
- Linezolid

**Question 175** [1.00 pt(s) ]

Which of the following drugs will cause acute tubular necrosis?

- Cisplatin
- Methotrexate
- Heroin
- Gold

**Question 176** [1.00 pt(s) ]

Which of the following would be most beneficial in a patient with type 1 diabetes and microalbuminuria to delay progression of Chronic Kidney Disease?

- ACE inhibitor and loop diuretic
- ACE inhibitor &/or ARB
- ARB and loop diuretic
- ACE Inhibitor, ARB and loop diuretic

**Question 177** [1.00 pt(s) ]

Which medication (s) is/are classified as calcineurin inhibitor?

- Sirolimus and cyclosporin
- Tacrolimus and cyclosporin
- Sirolimus and tacrolimus
- Sirolimus, tacrolimus and cyclosporin

**Question 178** [1.00 pt(s) ]

Which of the following is NOT an activated Vitamin D analogue?

- Calcitriol
- Ergocalciferol
- Paricalcitol
- Alfacalcidol

**Question 179** [1.00 pt(s) ]

What is the most common reported adverse reactions with epoetin alfa and darbepoetin alfa?

- Nausea
- Constipation
- Hypertension
- Anaphylaxis
**Question 180 [1.00 pt(s)]**

Which one of the following should be monitored if a patient with human immunodeficiency virus (HIV) is receiving fosamprenavir /ritonavir based regimen?

- Peripheral neuropathy
- Drug interactions with drugs metabolized by CYP1A2
- Hyperglycemia, fat redistribution, and lipid abnormalities
- Nephrolithiasis

**Question 181 [1.00 pt(s)]**

BK is a 29-year-old HIV-positive patient with CD4 count of 75/mm³. He received the diagnosis of cryptococcal meningitis and is successfully treated. Which of the following is the best follow-up therapy for this patient?

- Amphotericin B desoxycholate
- Caspofungin
- Terbinafine
- Fluconazole

**Question 182 [1.00 pt(s)]**

Which of the following is the main side effect of ethambutol?

- Discolored urine
- Optic neuritis
- Osteoporosis
- Neutropenia

**Question 183 [1.00 pt(s)]**

A 45 year old man asks his physician for a prescription for sildenafil to improve his sexual performance. Because of risks from a serious drug interaction, this drug should not be prescribed with:

- Angiotensin-converting enzyme inhibitors
- B-adrenergic blockers
- Nitrovasodilators
- Thiazide diuretics

**Question 184 [1.00 pt(s)]**

What is the mechanism that leads to the beneficial effects of alteplase?

- Blocking platelet ADP receptors
- Inhibiting platelet thromboxane production
- Inhibiting synthesis or activation of vitamin K-dependent coagulation factors
- Promoting conversion of plasminogen to plasmin

**Question 185 [1.00 pt(s)]**
Which of the following is NOT a potential adverse effect of clozapine?

- weight gain
- pseudoparkinsonism
- sedation
- urinary retention

Question 186 [1.00 pt(s)]

Which of the following atypical antipsychotics would be the least likely to cause extrapyramidal symptoms?

- risperidone
- olanzapine
- quetiapine
- Aripiprazole

Question 187 [1.00 pt(s)]

Which of the following statements best describes the mechanism by which bromocriptine produces its desired effects?

- Blockade of estrogen receptors
- Increases synthesis of follicle-stimulating hormone (FSH)
- Inhibition of prolactin release
- Stimulation of ovarian estrogen and progestin synthesis

Question 188 [1.00 pt(s)]

A 23 year old woman desires a combined oral contraceptive for pregnancy protection. Which of the following patient factors would lead a health professional to recommend an alternative form of contraception?

- Evidence of hirsutism
- History of gastrointestinal reflux disease and is currently taking omeprazole
- History of migraine with aura
- History of pelvic inflammatory disease

Question 189 [1.00 pt(s)]

Blood glucose levels may be increased by the use of:

- Protein consumption
- Biguanides
- Glucocorticoids
- Angiotensin-converting enzyme (ACE) inhibitors

Question 190 [1.00 pt(s)]

Amiodarone causes thyroid abnormalities mainly due to:

- Inhibition of thyroid peroxidase
- Blockage of peripheral thyroxine receptors
- its large iodine content
- Induction of the catabolism of T3

Question 191 [1.00 pt(s)]
Which of the following is NOT used in pharmacotherapy of benign prostatic hyperplasia?

- oxybutynin
- prazosin
- goserelin
- dutasteride

**Question 192** [1.00 pt(s)]

A patient who has received sertraline optimal effective dose for 2 weeks for the treatment of her first episode of major depression complains that the medication is not working and would like to be switched to another agent. What is the appropriate recommendation?

- Call the physician to recommend switching the patient to MAOIs
- Encourage the patient to continue with the current regimen, and inform him or her that it may take 4-6 weeks before the full response is evident
- Recommend adding lithium to augment the current regimen.
- Recommend combining with mirtazapine.

**Question 193** [1.00 pt(s)]

Which of the following mood stabilizers would be most appropriate in liver disease?

- lithium
- valproic acid
- carbamazepine
- lamotrigine

**Question 194** [1.00 pt(s)]

A 36-year-old woman presents with a 2-month history of depressed mood. This is the patient's first episode of major depression. Which of the following antidepressants would be most appropriate in the treatment of this patient?

- nortriptyline
- escitalopram
- phenelzine
- mirtazapine

**Question 195** [1.00 pt(s)]

Which of the following glucocorticoids produces the least sodium retention?

- Hydrocortisone
- Dexamethasone
- Prednisolone
- Fludrocortisone

**Question 196** [1.00 pt(s)]

A patient with his first major depression episode should receive antidepressant therapy for at least---------- after remission
2 weeks.
6 weeks.
2 months
6–12 months

**Question 197 [1.00 pt(s)]**

Which of the following drugs has a risk of jaw necrosis?

- Calcium carbonate
- Bisphosphonate
- Raloxifen
- Omeprazole

**Question 198 [1.00 pt(s)]**

Which of the following classes of medications is most likely to cause hyperprolactinemia?

- Beta-blockers
- Antidepressants
- Antihistamines
- Oral contraceptives

**Question 199 [1.00 pt(s)]**

For patients who have been on long-term therapy with a glucocorticoid and who wish to discontinue the drug, gradual tapering of glucocorticoid is needed to allow recovery of:

- Hematopoiesis in the bone marrow
- Normal osteoblast function
- The control by vasopressin of water excretion
- The hypothalamic-pituitary-adrenal system

**Question 200 [1.00 pt(s)]**

The intravenous general anesthetic which produces dissociative anesthesia is:

- Midazolam
- Ketamine
- Fentanyl
- Thiopental

**Question 201 [1.00 pt(s)]**

Indicate a selective catechol-O-methyltransferase (COMT) inhibitor, which increases central uptake of levodopa:

- Carbidopa
- Benzhexol
- Entacapone
- Selegiline
Question 202 [1.00 pt(s)]

Which of the following statements is incorrect for amitriptyline?

- It inhibits serotonin reuptake
- It inhibits noradrenaline reuptake
- It is associated with dry mouth and urine retention
- It is used for the treatment of anxiety

Question 203 [1.00 pt(s)]

Continued vasomotor symptoms in a 52-year-old postmenopausal woman receiving 0.3 mg of oral conjugated equine estrogens can be managed by:

- Changing to an equivalent transdermal estrogen regimen
- Changing to a selective estrogen-receptor modulator
- Increasing the daily estrogen dose
- Decreasing the daily estrogen dose

Question 204 [1.00 pt(s)]

A person with diabetes mellitus has microalbuminuria. The correct intervention at this time is to:

- Start hydrochlorothiazide, only if hypertensive
- Start ramipril, only if hypertensive
- Start ramipril, even if not hypertensive
- Start Valsartan, only if hypertensive

Question 205 [1.00 pt(s)]

Why is methimazole the antithyroid therapy of choice in most patients with Graves’ disease?

- It has a shorter half-life than propylthiouracil.
- It is renally excreted, so no adjustment is needed for liver disease.
- It causes fewer adverse effects such as hepatotoxicity
- It blocks the conversion of T4 to T3.

Question 206 [1.00 pt(s)]

Which of the following antipsychotic medications is the best initial treatment for a patient suffering from diabetes mellitus and schizophrenia?

- aripiprazole
- haloperidol
- thioridazine
- clozapine

Question 207 [1.00 pt(s)]

A patient took a potentially lethal overdose of aspirin. What drug would be a helpful, if not lifesaving, adjunct to manage this severe aspirin poisoning?
Acetaminophen
N-acetylcysteine
Phenobarbital
Sodium bicarbonate

Question 208 [1.00 pt(s)]

In overall assessment, which non-steroidal anti-inflammatory drug has been considered to be the safest

Aspirin
Indomethacin
Ibuprofen
Piroxicam

Question 209 [1.00 pt(s)]

A patient presents in the emergency department with an overdose of a drug. The physician knows what the drug is, and so orders appropriate “symptomatic and supportive care,” plus multiple doses of N-acetylcysteine. Upon which drug did the patient overdose?

Acetaminophen
Aspirin
Colchicine
Diphenhydramine

Question 210 [1.00 pt(s)]

Which of the following may best relief occasional dysmenorrhea?

Over the counter codeine
Naproxen
Acetaminophen
Vitamin E

Question 211 [1.00 pt(s)]

A decrease in the formation of angiotensin II and an increase in the concentration of bradykinin explain the vasodilator action of:

Alpha-blockers
Beta-blockers
Angiotensin-converting enzyme inhibitors
Angiotensin receptor blockers

Question 212 [1.00 pt(s)]

Which of the following is an arterial vasodilator with a direct effect to decrease heart rate and cardiac contractility?

Diltiazem
Propranolol
Prazosin
Captopril
Question 213 [1.00 pt(s)]

What is the potential adverse effect of monotherapy with thiazide diuretics after several months of treatment?

- Hyperkalemia
- Elevated triglyceride and hypoglycemia
- Volume depletion and renal failure
- Compensatory volume retention and hypokalemia

Question 214 [1.00 pt(s)]

Which of the following diuretic would be most useful in the acute treatment of comatose patient with brain injury and cerebral edema?

- Acetazolamide
- Ethacrynic acid
- Furosemide
- Mannitol

Question 215 [1.00 pt(s)]

Which antihypertensive therapy should be avoided in type-1 diabetes mellitus?

- ACE inhibitors
- High dose diuretics
- Centrally-acting agents
- Calcium channel blockers

Question 216 [1.00 pt(s)]

How do ACE inhibitors improve cardiovascular hemodynamics?

- ACE inhibitors prevent pregnancy associated cardiomyopathy
- ACE inhibitors increase bradykinin levels to inhibit tachyarrythmia
- ACE inhibitors antagonize the vasoconstrictive effects of angiotensin at its receptors
- ACE inhibitors cause arterial and venous dilation and limit the development of post myocardial infarction cardiomyopathy

Question 217 [1.00 pt(s)]

Loop diuretics effects on ionic excretion include all of the following EXCEPT:

- Increased sodium excretion
- Decreased magnesium loss
- Increased calcium loss
- Increased potassium loss

Question 218 [1.00 pt(s)]

Mechanism of action of Thiazide diuretics is:
Inhibition of the NaK2Cl transporter
Inhibition of carbonic anhydrase
Inhibition of the NaCl cotransporter in the distal tubule
An antagonist of aldosterone

**Question 219 [1.00 pt(s)]**

**Mechanism of action of Acetazolamide is:**

- Inhibits the NaK2Cl transporter
- Inhibits carbonic anhydrase
- Inhibits the NaCl cotransporter in the distal tubule
- An antagonist of aldosterone

**Question 220 [1.00 pt(s)]**

**Mechanism of action of Furosemide is:**

- Inhibits the NaK2Cl transporter
- Inhibits carbonic anhydrase
- Inhibits the NaCl cotransporter in the distal tubule
- An antagonist of aldosterone

**Question 221 [1.00 pt(s)]**

Principally, nasal decongestants belong in which of the following drug groups?

- Alpha1 agonists
- Antihistamines
- Narcotics
- Antimuscarinic drugs

**Question 222 [1.00 pt(s)]**

The use of nasal decongestants is contraindicated when a person is taking which of the following drugs?

- Antihypertensive drugs
- MAO inhibitors
- Insulin
- Nonsteroidal anti-inflammatory analgesic drugs

**Question 223 [1.00 pt(s)]**

**Ototoxicity is a unique side effect of which group of diuretics?**

- Loop diuretics
- Thiazide diuretics
- Potassium sparing diuretics
- Osmotic diuretics

**Question 224 [1.00 pt(s)]**
Which class of diuretics is useful in reducing intraocular pressure during acute attacks of Glaucoma?

- Loop diuretics
- Thiazide diuretics
- Potassium sparing diuretics
- Osmotic diuretics

Question 225 [1.00 pt(s)]

Which of the following laxatives is contraindicated in patients with intestinal obstruction or perforation?

- Fleet enema
- Glycerin suppositories
- Lactulose
- Psyllium

Question 226 [1.00 pt(s)]

Among the following, the laxative with highest risk of abuse is:

- Macrogol
- Senna
- Carboxymethylcellulose
- Magnesium salts

Question 227 [1.00 pt(s)]

Which of the following is classified as a fibrinolytic?

- Enoxaparin
- Warfarin
- Ticlopidine
- Alteplase

Question 228 [1.00 pt(s)]

How do sildenafil and organic nitrates interact to precipitate severe hypotension?

- Both agents promote vasodilation
- Both agents reduce myocardial contractility
- Both agents divert systemic blood flow to the corpus cavernosum
- Both agents decrease the normal sympathetic tone of the systemic vasculature

Question 229 [1.00 pt(s)]

What accounts for the efficacy of Eptifibatide in inhibiting platelet aggregation?

- Eptifibatide enhances endothelial cell production of prostacyclin, which inhibits platelet aggregation.
- Eptifibatide is an antagonist at the platelet GPIIb/IIa receptor, preventing fibrinogen binding to platelets.
Eptifibatide is a mouse–human monoclonal anti-body directed against platelet-derived thromboxane, preventing its activation of platelet aggregation.

Eptifibatide catalyzes the degradation of fibrinogen, preventing its binding to activated platelets.

Question 230 [1.00 pt(s)]

A 32-year-old woman with hypertension wishes to become pregnant. Her physician informs her that she will have to switch to another antihypertensive drug. Which of the following drugs is absolutely contraindicated in pregnancy?

- Atenolol
- Captopril
- Prazosin
- Propranolol

Question 231 [1.00 pt(s)]

A 73 year old man with a history of falling at home is found to have hypertension. Which of the following drugs is most likely to cause postural hypotension and thus an increased risk of falls?

- ACE Inhibitors
- Alpha blockers
- Beta 1 blockers
- Angiotensin receptor blockers

Question 232 [1.00 pt(s)]

Verapamil is associated with which one of the following?

- Hypoglycemia
- Decreased PR interval
- Constipation
- Tachycardia

Question 233 [1.00 pt(s)]

Which type of therapy would be most appropriate for a 58-year-old female with type 2 diabetes and total cholesterol 210 mg/dL, HDL cholesterol 52 mg/dL, triglycerides 958 mg/dL, and LDL cholesterol 131 mg/dL?

- Fenofibrate 160 mg daily
- Atorvastatin 40 mg daily
- Pravastatin 20 mg daily
- Cholestyramine twice daily

Question 234 [1.00 pt(s)]

A 38-year-old woman with hyperlipidemia presents to the primary care clinic with worsening muscle aches. Her total cholesterol was 268 mg/dL, her LDL was 167 mg/dL, her HDL was 42 mg/dL, and her triglyceride was 254 mg/dL during her last visit. The decision was made to add another lipid-lowering medication to her simvastatin. She never had muscle aches before and is wondering if the new medication is causing her new pain. What medication was most likely added to her simvastatin?
Cholestyramine
Colestipol
Ezetimibe
Gemfibrozil

**Question 235** [1.00 pt(s)]

Propranolol should not be prescribed for a patient of angina pectoris who is already receiving

- Nifedipine
- Felodipine
- Verapamil
- Isosorbide mononitrate

**Question 236** [1.00 pt(s)]

In the treatment of cardiac shock, the drug of choice is

- Dopamine
- Propranolol
- Phenoxybenzamine
- Metaraminol

**Question 237** [1.00 pt(s)]

Which drug besides lowering blood pressure arrests and even reverses cardiac hypertrophy

- ACE inhibitors
- Betablockers
- Calcium channel blockers
- Diuretics

**Question 238** [1.00 pt(s)]

A patient undergoing cancer chemotherapy is vomiting frequently. A drug that might help in this situation is:

- Bromocriptine
- Cimetidine
- Loratadine
- Ondansetron

**Question 239** [1.00 pt(s)]

In the emergency department, the preferred first-line therapy for asthma exacerbation is:

- Theophyllin
- β-agonist
- Corticosteroid
- Antihistamine
**Question 240 [1.00 pt(s) ]**

The common and dose related side effect of salbutamol is

- Decrease in blood pressure
- Muscle tremor
- Hyperglycaemia
- Central nervous system stimulation

**Question 241 [1.00 pt(s) ]**

Which of the following anti diarrheal OTC drug is related chemically to the strong opioid-analgesic meperidine?

- Aluminum hydroxide
- Diphenoxylate
- Loperamide
- Magnesium hydroxide

**Question 242 [1.00 pt(s) ]**

Which of the following counseling information about calcium supplements is TRUE?

- You can take the supplements with other drugs since there is no interaction
- Calcium supplements should be taken in divided doses not as one dose to increase absorption
- You can take the supplements with fibers concurrently since there is no interaction
- Common adverse effects include: diarrhea

**Question 243 [1.00 pt(s) ]**

Which of the followings is counseling information about the intermediate acting insulin?

- Shake well the vial before use
- Inject insulin at any time throughout the day
- Inject insulin as intravenous injection only
- Keep the vials in their pockets

**Question 244 [1.00 pt(s) ]**

Which of the following statement regarding Vitamin D supplements is TRUE?

- There is only one form of vitamin D available
- Vitamin D cannot be taken with Calcium
- Given only to elderly patients
- Given for osteoporosis prevention and treatment

**Question 245 [1.00 pt(s) ]**

Which of the following statements regarding sulfonylurea is CORRECT?

- Available in parenteral formulation
Might induce the risk of hypoglycemia and weight gain
Must be taken at bed time
Cannot be combined with other therapies

**Question 246 [1.00 pt(s)]**

A talented 21-year-old violinist’s musical career is in trouble because he becomes acutely anxious, suffering from tremors and palpitations, whenever he is asked to play in front of an audience. What medication can help him in reducing his symptoms?

- Desipramine
- Citalopram
- Risperidone
- Propranolol

**Question 247 [1.00 pt(s)]**

A 56-year-old woman who was diagnosed with paranoid schizophrenia in her early twenties has received daily doses of various typical antipsychotics for many years. For the past 2 years, she has had symptoms of tardive dyskinesia. Which of the following actions should be taken next?

- Start the patient on benztropine
- Start the patient on propranolol
- Start the patient on diphenhydramine
- Switch the patient to clozapine

**Question 248 [1.00 pt(s)]**

A 72-year-old man develops acute urinary retention and blurred vision after taking an antidepressant for 5 days. Which of the following medications is most likely to cause such side effects?

- Venlafaxine
- Bupropion
- Escitalopram
- Amitriptyline

**Question 249 [1.00 pt(s)]**

Which of the following drugs can cause nausea & vomiting if ingested with alcohol?

- Disulfiram
- Methadone
- Lorazepam
- Naltrexone

**Question 250 [1.00 pt(s)]**

TM is a 78 year old, newly diagnosed Alzheimer’s disease patient. His clinician explained to his family that they need to give the patient a medication that will increase acetylcholine in the brain to improve his cognition. Which of the following medications might have been prescribed for TM?
Question 251 [1.00 pt(s)]

A 42-year-old woman, with a history of epilepsy is being treated with an antiepileptic drug for focal seizures since 8 years. She is presenting to your pharmacy today because she is experiencing an increase in the size of her jaw over the past years and production of hair over her face. Which of the following might be the drug that this lady has been taking?

- Valproic Acid
- Phenytoin
- Gabapentin
- Lamotrigine

Question 252 [1.00 pt(s)]

A depressed 52-year-old woman presents with a worsening of depression after she was informed she has diabetes, and she has a new onset of painful neuropathy in her legs. Furthermore, she is postmenopausal and suffering immensely from vasomotor hot flashes. What treatment may best target her psychiatric and medical comorbidities?

- Escitalopram
- Duloxetine
- Trazodone
- Vilazodone

Question 253 [1.00 pt(s)]

TE, A 43-year-old woman, who works as a teacher at a school, presents to her doctor complaining of difficulties with sleep initiation. She now has many thoughts at night and is “unable to shut her mind off.” She has been diagnosed with insomnia. Which of the following prescription medication is indicated for her condition?

- Zolpidem
- Butalbital
- Valerian
- Diphenhydramine

Question 254 [1.00 pt(s)]

Which of the following medication is the most appropriate treatment for a 10 year old boy by diagnosed with absence seizure?

- Phenytoin
- Carbamazepine
- Ethosuximide
- Clobazam

Question 255 [1.00 pt(s)]

Which of the following is NOT an antitussive?
Question 256 [1.00 pt(s) ]

Which of the following is classified as a pediculicide?

- Amoxicillin
- Lindane
- Fluconazole
- Benzyl alcohol

Question 257 [1.00 pt(s) ]

Which of the following is NOT a component of an oral rehydration solution?

- Sodium
- Chloride
- Calcium
- Potassium

Question 258 [1.00 pt(s) ]

Which of the following drugs is not considered an ophthalmic decongestant?

- Naphazoline
- Tetrahydrozoline
- Oxymetazoline
- Antazoline

Question 259 [1.00 pt(s) ]

Which of the following is used safely and effectively for excessive impacted cerumen in the middle ear?

- Neomycin
- Carbamide peroxide
- Docusate calcium
- Castor oil

Question 260 [1.00 pt(s) ]

Which of the following antiplatelet would you consider recommending for patients with angina?

- Warfarin
- Acenocoumarol
- Heparin
- Aspirin
Question 261 [1.00 pt(s) ]

Which of the following would you recommend for the treatment of hypertension in a 55 year old male with chronic kidney disease having a CrCl of 50 ml/min?

- ACE inhibitor
- Thiazide diuretic
- Beta Blocker
- Calcium channel blocker

Question 262 [1.00 pt(s) ]

Which of the following would you consider recommending for a patient when you anticipate a decrease of 55% in LDL cholesterol?

- Ezetimibe
- Cholestyramine
- Rosuvastatin
- Niacin

Question 263 [1.00 pt(s) ]

In counseling patients on the proper use of the nicotine gum, what would be the most appropriate advice?

- Use the gum with food and beverages
- Continue chewing a piece of gum until the craving for cigarettes stops
- Chew the gum slowly until a peppery or minty taste emerges
- Swallow the gum for nicotine to be absorbed

Question 264 [1.00 pt(s) ]

Which of the following medications can you recommend for a 7 years old child with asthma knowing that the mother prefers a medication that can be administered orally?

- Budesonide
- Fluticasone
- Montelukast
- Cromolyn

Question 265 [1.00 pt(s) ]

Which of the following would you recommend in a patient with severe GERD?

- Calcium carbonate
- Esomeprazole
- Cimetidine
- Sucralfate

Question 266 [1.00 pt(s) ]

Which of the following would you recommend in non-infective acute diarrhea?
Cholestyramine  
Loperamide  
Psyllium  
Diphenoxylate

**Question 267 [1.00 pt(s)]**

ACE inhibitors and ARBs treat hyper-tension in a similar fashion and have similar side effects. Which of the following is a side effect of ACE inhibitors only?

- Dizziness  
- Dry cough  
- Erectile dysfunction  
- Hypotension

**Question 268 [1.00 pt(s)]**

Which of the following is a calcium channel blocker that works primarily on vascular smooth muscle?

- Amlodipine  
- Diltiazem  
- Losartan  
- Nitroprusside

**Question 269 [1.00 pt(s)]**

What is the mechanism of action of isosorbide dinitrate?

- Blocks the activity of angiotensin II at its receptor  
- Causes excess fluid elimination  
- Increases cardiac inotropy  
- Reduces preload

**Question 270 [1.00 pt(s)]**

A 57-year-old man with congestive heart failure and hypertension is maintained on digoxin and diuretic. Which of the following blood indicators is most important to follow in this patient to avoid severe side effects?

- Bicarbonate  
- Chloride  
- Glucose  
- Potassium

**Question 271 [1.00 pt(s)]**

A 61-year-old man with hypertension develops atrial fibrillation. His medications include simvastatin and metoprolol. His physician prescribes an anticoagulant for clot prophylaxis, which directly inhibits thrombin. Which drug is this?

- Aspirin
A 58-year-old man presents to the emergency department (ED) after experiencing a sudden loss of motor control on his left side accompanied by aphasia. By the time he reached the ED, his symptoms had already resolved. He is given a prescription for a drug that binds platelet ADP receptors to prevent their aggregation. Which drug is this?

- Clopidogrel
- Enoxaparin
- Eptifibatide
- Tirofiban

The mechanism of action of furosemide is in which of the following locations?

- Ascending limb of the loop of Henle
- Collecting duct
- Distal tubule
- Proximal tubule

What is the mechanism of action of alteplase?

- Binds to glycoprotein receptor IIb/IIIa
- Blocks ADP receptors
- Converts plasminogen to plasmin
- Inhibits COX-1 and COX-2

A 56-year-old man presents to his primary care physician complaining of difficulty urinating. Digital rectal exam reveals an enlarged prostate. The patient is started on terazosin, after which his symptoms improve dramatically. Which of the following side effects he is most likely to experience?

- Diarrhea
- Dizziness
- Flatulence
- Headache

What is the mechanism of action of Spironolactone?

- Aldosterone receptor antagonist
- Carbonic anhydrase inhibitor
- Inhibits NaCl reabsorption
Inhibits Na+/K+/2Cl- cotransport

**Question 277 [1.00 pt(s)]**

How does digoxin help in heart failure?

- Blocks the activity of angiotensin II at its receptor
- Causes excess fluid elimination
- Increases cardiac inotropy
- Reduces preload

**Question 278 [1.00 pt(s)]**

What is the mechanism of action of prazosin?

- Antagonizes alpha2-adrenergic receptors
- Inhibits 5-alpha-reductase
- Inhibits testosterone synthesis
- Relaxes prostatic smooth muscle

**Question 279 [1.00 pt(s)]**

Which of the following drugs blocks de novo cholesterol synthesis in hepatocytes?

- Cholestyramine
- Colesevelam
- Ezetimibe
- Rosuvastatin

**Question 280 [1.00 pt(s)]**

A 37-year-old woman with hyperlipidemia is taking a drug to lower her triglyceride and blood cholesterol levels. She is considering stopping her therapy, however, because of a red, itchy rash on her face and neck that occurs following some doses. Which drug is she taking?

- Atorvastatin
- Fenofibrate
- Gemfibrozil
- Nicotinic acid

**Question 281 [1.00 pt(s)]**

A 43-year-old man with dyslipidemia comes to the clinic for a routine checkup. He currently takes Atorvastatin but is not achieving his target lipid profile. The physician prescribes Colesevelam to help. Which of the following changes is expected as a result of this new therapy?

- Decreased HDL
- Decreased triglycerides
- Hyperglycemia
- Increased triglycerides

**Question 282 [1.00 pt(s)]**
What is the mechanism of action of glimepiride?

- Decreased glucagon release
- Increased insulin release
- Increased insulin sensitivity in peripheral tissues
- Inhibits intestinal brush border enzymes

**Question 283** [1.00 pt(s)]

Which of the following drugs blocks brush border enzymes to inhibit intestinal absorption of cholesterol?

- Cholestyramine
- Colesevelam
- Rosuvastatin
- Ezetimibe

**Question 284** [1.00 pt(s)]

A 43-year-old woman with Type-2 diabetes has been taking insulin with meals as well as metformin. Her blood glucose remains poorly controlled. Her doctor prescribes an additional drug, which is an analog of an endogenous peptide that enhances insulin secretion. What drug is this?

- Exenatide
- Glipizide
- Miglitol
- Rosiglitazone

**Question 285** [1.00 pt(s)]

A 57-year-old man with hyperlipidemia presents to the emergency department with severe pain in his first right toe. The pain is a 10/10 and worse with any contact. Joint aspiration confirms gout. He had an episode of gout about 10 years ago. What medication used to treat his hyperlipidemia may have led to his gout flare?

- Cholestyramine
- Ezetimibe
- Gemfibrozil
- Niacin

**Question 286** [1.00 pt(s)]

Which of the following drugs prevents acid secretion by antagonizing a receptor?

- Aluminum hydroxide
- Fexofenadine
- Omeprazole
- Ranitidine

**Question 287** [1.00 pt(s)]

A 33-year-old woman who is obese complains of post-prandial, burning chest pain. Her physician prescribes pantoprazole. Pantoprazole may impair
absorption of which of the following nutrients?

- Vitamin B12
- Vitamin E
- Vitamin A
- Vitamin D

**Question 288 [1.00 pt(s)]**

A 26-year-old woman at 33 weeks gestation presents to the emergency department with pain and swelling in her right calf. A duplex of the right calf confirms the presence of a deep vein thrombosis (DVT). What is the most appropriate treatment for the rest of her pregnancy?

- Abciximab
- Aspirin
- Heparin
- Warfarin

**Question 289 [1.00 pt(s)]**

Which of the following drugs would decrease the amount of asthma attacks by preventing an arachidonic acid derivative from binding to its receptor?

- Aspirin
- Celecoxib
- Ipratropium
- Montelukast

**Question 290 [1.00 pt(s)]**

A 15-year-old female presents to her primary care physician complaining of runny nose and itchy eyes. She said that she first had these symptoms during the spring a few years ago, but each year, they have been bothering her more. Which of the following drugs would prevent the release of the main chemical mediator in her case?

- Cromolyn sodium
- Diphenhydramine
- Ranitidine
- Theophylline

**Question 291 [1.00 pt(s)]**

A 33-year-old man with a history of asthma comes into the emergency department after getting stung by a bee. The treating physician wants to give epinephrine subcutaneously. Which of the following contra-indications to this medication is noted?

- Diabetes mellitus
- Narrow-angle glaucoma
- Pulmonary failure
- Thyroid disease

**Question 292 [1.00 pt(s)]**
JG is a patient with an immediate allergic reaction to ticarcillin/clavulanate. Select the antimicrobial that JG may take without risk of allergic reaction.

- Piperacillin/tazobactam
- Amoxicillin/clavulanate
- Ceftriaxone
- Aztreonam

**Question 293 [1.00 pt(s)]**

Which of the following carbapenem antibiotics does not have coverage against P. aeruginosa?

- Ertapenem
- Doripenem
- Imipenem-cilastatin
- Meropenem

**Question 294 [1.00 pt(s)]**

Which agent is recommended for a 25-year old man with suspected Community acquired pneumonia (CAP) who completed a 5 day course of Clarithromycin for suspected CAP 6 weeks ago?

- Clarithromycin 1,000 mg/day po
- Levoﬂoxacin 750 mg/day po
- Piperacillin-tazobactam 4.5 g IV q6h
- Doxycycline 100 mg po bid

**Question 295 [1.00 pt(s)]**

Which of the following agents is not recommended for respiratory tract infections with possible MRSA infections?

- Ceftaroline
- Daptomycin
- Linezolid
- Vancomycin

**Question 296 [1.00 pt(s)]**

A drug is administered in the form of an inactive pro-drug. The pro-drug increases the expression of a cytochrome P-450 that converts the pro-drug to its active form. With chronic, long-term administration of the pro-drug, which of the following will be observed?

- The potency will decrease
- The potency will increase
- The efficacy will decrease
- The efficacy will increase

**Question 297 [1.00 pt(s)]**

A 6-year-old elementary school student seen in the clinic is found to have lice infestation of the scalp. Measures to eradicate the infection in the
patient and the rest of the family include:

- Calamine lotion with 1% menthol and sterilization of all bedding and clothes
- Sulfur ointment and sterilization of all bedding and clothes
- Permethrin 1% and sterilization of all bedding and clothes
- Crotamiton and sterilization of all bedding and clothes

Question 298 [1.00 pt(s)]

A patient took a potentially lethal overdose of aspirin. What drug would be a helpful, if not lifesaving, adjunct to manage this severe aspirin poisoning?

- Acetaminophen
- N-acetylcysteine
- Phenobarbital
- Sodium bicarbonate

Question 299 [1.00 pt(s) **Shuffle Disabled**]

A 55 year old man known to have diabetes presents to the physician for follow up. He has a history of elevated BP and today his average BP measured is 156/95mmHg. Which of the following drugs would be recommended as a first choice for this patient according to JNC8?

- Ramipril
- Amlodipine
- Hydrochlorothiazide
- Any of the above

Question 300 [1.00 pt(s)]

Which type of therapy would be most appropriate for a 58-year-old female with type 2 diabetes and total cholesterol 210 mg/dL, HDL cholesterol 52 mg/dL, triglycerides 958 mg/dL, and LDL cholesterol 131 mg/dL?

- Fenofibrate 160 mg daily
- Atorvastatin 40 mg daily
- Pravastatin 20 mg daily
- Cholestyramine twice daily

Question 301 [1.00 pt(s)]

This drug, which does not activate opioid receptors, has been proposed as a maintenance drug in treatment programs for opioid addicts; a singly oral dose will block the effects of injected heroin for up to 48 hours:

- Amphetamine
- Buprenorphine
- Naloxone
- Naltrexone

Question 302 [1.00 pt(s)]

Which one of the following effects does not occur in salicylate intoxication?
Hyperventilation
Diarrhea
Metabolic acidosis
Respiratory alkalosis

Question 303 [1.00 pt(s)]

Which of the following is an irreversible inhibitor of cyclooxygenase?

- Aspirin
- Phenylbutazone
- Indomethacin
- Piroxicam

Question 304 [1.00 pt(s)]

Which of the following glucocorticoids has significant mineralocorticoid activity also?

- Hydrocortisone
- Triamcinolone
- Dexamethasone
- Betamethasone

Question 305 [1.00 pt(s)]

N-acetyl cysteine is beneficial in acute paracetamol poisoning because

- It reacts with paracetamol to form a nontoxic complex
- It inhibits the generation of the toxic metabolite of paracetamol
- It is a free radical scavenger
- It replenishes hepatic glutathione which in turn binds the toxic metabolite of paracetamol

Question 306 [1.00 pt(s)]

Milrinone is an example of

- Phosphodiesterase I inhibitor
- Phosphodiesterase II inhibitor
- Phosphodiesterase III inhibitor
- Phosphodiesterase IV inhibitor

Question 307 [1.00 pt(s) **Shuffle Disabled**]

Unfractionated heparin binds to antithrombin III and inactivates clotting factor(s)

- Xa
- IXa
- IIa
- All of the above

Question 308 [1.00 pt(s)]
The dihydropyridines block the following type of calcium channels.

- L-type voltage sensitive channels
- T-type voltage sensitive channels
- N-type voltage sensitive channels
- Receptor operated calcium channels

**Question 309** [1.00 pt(s)]

Which of the following is a very long acting β2 - selective agonist that is used for asthma prophylaxis?

- Albuterol
- Ipratropium
- Metaproterenol
- Salmeterol

**Question 310** [1.00 pt(s)]

Terbutaline has a preference for stimulation of which of the following receptors?

- Alpha
- Beta 1
- Beta 2
- Dopaminergic

**Question 311** [1.00 pt(s)]

Which of the following statements about vancomycin is accurate?

- It is bacteriostatic
- It binds to penicillin binding protein
- It is not susceptible to penicillinase
- It has the advantage of oral bioavailability

**Question 312** [1.00 pt(s)]

The mechanism of antibacterial action of tetracycline involves

- Binding to a component of the 50S ribosomal subunit
- Blockade of binding of aminoacyl - tRNA to bacterial ribosomes
- Selective inhibition of ribosomal peptidyl transferases
- Inhibition of DNA-dependent RNA polymerase

**Question 313** [1.00 pt(s)]

Penicillins interfere with bacterial cell wall synthesis by

- Inhibiting synthesis of N-acetyl muramic acid pentapeptide
- Inhibiting conjugation between N-acetyl muramic acid and N-acetyl glucosamine
- Inhibiting transpeptidases and carboxy peptidases which cross link the Peptidoglycan residues
- Counterfeiting for D-alanine in the bacterial cell wall
Question 314 [1.00 pt(s)]

Clavulanic acid is combined with amoxicillin because:

- It kills bacteria that are not killed by amoxicillin
- It reduces renal clearance of amoxicillin
- It counteracts the adverse effects of amoxicillin
- It inhibits beta lactamases that destroy amoxicillin

Question 315 [1.00 pt(s)]

Which phrase best describes the mechanism by which Amiloride causes its potassium-sparing effects?

- Blocks the agonist effects of aldosterone with its renal tubular receptors
- Blocks distal tubular sodium channels and, ultimately, Na+-K+ exchange
- Hastens metabolic inactivation of aldosterone
- Stimulates a proximal tubular Na, K-ATPase

Question 316 [1.00 pt(s)]

Which one of the following is the other most likely mechanism by which nebivolol helps lower blood pressure?

- Competitively blocks postsynaptic (α1) adrenergic receptors
- Competitively blocks presynaptic (α2) adrenergic receptors
- Increases nitric oxide formation
- Increases synthesis of thromboxane A2

Question 317 [1.00 pt(s)]

A 42-year-old man with an acute MI is treated with alteplase, and electrocardiographic and hemodynamic status improves quickly. By what mechanism did the alteplase cause its beneficial effects?

- Blocked platelet ADP receptors
- Inhibited platelet thromboxane production
- Prevented aggregation of adjacent platelets by blocking glycoprotein IIb/IIIa receptors
- Promoted conversion of plasminogen to plasmin

Question 318 [1.00 pt(s)]

Which of the following statements best describes the mechanism of action of Abciximab?

- Blocks thrombin receptors selectively
- Blocks ADP receptors
- Blocks glycoprotein IIb/IIIa receptors
- Inhibits cyclooxygenase

Question 319 [1.00 pt(s)]

Oxybutynin works by
Question 320 [1.00 pt(s)]

A 27-year-old man was recently diagnosed with Type-2 diabetes mellitus and placed on a medication. As he was drinking alcohol with his friends, he became violently ill. What medication is he most likely taking?

- Glyburide
- Metformin
- Pioglitazone
- Tolbutamide

Question 321 [1.00 pt(s)]

Which of the following drugs is an analog of an endogenous peptide that inhibits glucagon secretion?

- Exenatide
- Glipizide
- Pramlintide
- Rosiglitazone

Question 322 [1.00 pt(s)]

Which of the following drugs will decrease synthesis of thyroid hormones and decrease the peripheral conversion of T4 to T3?

- Lanreotide
- Levothyroxine
- Octreotide
- Propylthiouracil

Question 323 [1.00 pt(s)]

Which of the following statements describes how NSAIDs may interfere with the effects of Furosemide?

- Afferent arteriole vasoconstriction
- Efferent arteriole vasoconstriction
- Increase tubular sodium reabsorption
- Stimulation of the ADH receptor

Question 324 [1.00 pt(s)]

Hydrochlorothiazide may be helpful in prevention of renal stones through which of the following mechanisms?

- Binding to urine calcium
- Binding to urine sodium
- Resorption of calcium at the level of renal tubules
- Increase in calcium excretion at the level of renal tubules
Question 325 [1.00 pt(s)]

In case of open-angle glaucoma, Acetazolamide is given to produce which of the following responses?

- Decrease production of aqueous humor
- Increasing intraocular pressure
- Inhibition of sodium-calcium transport
- Stimulating carbonic anhydrase

Question 326 [1.00 pt(s)]

Teriparatide is a recombinant segment of which of the following hormones?

- Follicle-stimulating hormone
- Growth hormone
- Parathyroid hormone
- Thyroid hormone

Question 327 [1.00 pt(s)]

Which of the following is the mechanism of orlistat?

- Binding bile salts
- Inhibition of α-glucosidase
- Inhibition of chylomicrons formation
- Inhibition of lipase

Question 328 [1.00 pt(s)]

A 76-year-old man with stage 5 chronic kidney disease who has been on hemodialysis for 2 years presents with muscle cramping. His serum phosphate is markedly elevated. His physician prescribes sevelamer. How will sevelamer act?

- Decrease phosphate resorption from bone
- Increased excretion in the feces
- Increased excretion in the sweat
- Increased excretion in the urine

Question 329 [1.00 pt(s)]

What is the most likely mechanism of action of caffeine?

- Increase in adenosine diphosphate
- Increase in cyclic guanosine monophosphate
- Inhibition of guanosine receptors
- Inhibition of thymine receptors

Question 330 [1.00 pt(s)]

Which of the following medications is the most commonly associated with hepatotoxicity?
Barbiturates
Benzodiazepines
Salicylates
Acetaminophen

**Question 331 [1.00 pt(s)]**

Drug level as part of poisoning management is indicated in all of the following, except:

- Digoxin
- Oral hypoglycemics
- Carbon monoxide
- Iron

**Question 332 [1.00 pt(s)]**

The antidote that acts by direct pharmacological antagonism is:

- Deferoxamine
- Naloxone
- Pralidoxime
- Alkaline diuresis

**Question 333 [1.00 pt(s)]**

Deferoxamine acts in case of acute iron poisoning as:

- Chelator
- Antagonist
- Inactivator
- Competitor

**Question 334 [1.00 pt(s)]**

Cardiac dysrhythmias in case of tricyclic antidepressants toxicity is best treated with:

- Dopamine
- Sodium bicarbonate
- Epinephrine
- Phenylephrine

**Question 335 [1.00 pt(s)]**

The first line treatment for beta blockers poisoning:

- Glucagon
- Calcium
- Phosphodiesterase inhibitors
- Catecholamines

**Question 336 [1.00 pt(s)]**
Which of the following pairs is False regarding drugs and their appropriate antidotes:

- Methanol: Ethanol
- Cyanide: Thiocyanate
- Methemoglobinemia: Methylene blue
- Carbon monoxide: Oxygen

**Question 337** [1.00 pt(s)]

Regarding Activated charcoal which is incorrect:

- Adsorbs all toxic ingestants preventing further GI absorption
- Best if used within first hour of ingestion
- Contraindicated in case of gastrointestinal obstruction
- Multiple dose activated charcoal interrupts enterohepatic recirculation

**Question 338** [1.00 pt(s)]

Following aspirin overdose the initial acid-base derangement is usually:

- Respiratory acidosis
- Metabolic acidosis
- Respiratory alkalosis
- Metabolic alkalosis

**Question 339** [1.00 pt(s)]

Which of the following is the antidote in Benzodiazepines intoxication?

- Flumazenil
- Methylene blue
- Deferoxamine
- Alkalinize urine

**Question 340** [1.00 pt(s)]

Which of the following is the antidote in lead intoxication?

- Naloxone
- Nitrite
- CaEDTA
- Dialysis

**Question 341** [1.00 pt(s)]

Which of the following is the primary site of activity Warfarin?

- Kidney
- Liver
- Blood
- Heart
Question 342 [1.00 pt(s)]

Which of the following drugs is mainly associated with hepatitis?

- Valproic acid
- Quinidine
- Isoniazid
- Ethosuximide

Question 343 [1.00 pt(s)]

Which of the following drugs is associated with the reaction of tendon rupture?

- Digitalis
- Niacin
- Tetracycline
- Fluoroquinolones

Question 344 [1.00 pt(s)]

Which of the following drugs is associated with the reaction of extreme photosensitivity?

- Digitalis
- Niacin
- Tetracycline
- Fluoroquinolones

Question 345 [1.00 pt(s)]

Which of the following is not related to a drug toxicity of Prednisone?

- Cataracts
- Hypotension
- Psychosis
- Acne

Question 346 [1.00 pt(s)]

Which of the following is not related to a drug toxicity of Atenolol?

- CHF
- Tachycardia
- AV block
- Sedative appearance

Question 347 [1.00 pt(s)]

Potassium sparing diuretics have the primary effect upon the found in the kidney.

- Proximal convoluted tubule
Loop of Henle
- Collecting duct
- Distal convoluted tubule

**Question 348** [1.00 pt(s) ]
Which of the following is not directly related to a drug toxicity of Nitroglycerin?

- Headaches
- Tachycardia
- Dizziness
- Vomiting

**Question 349** [1.00 pt(s) ]
Which of the following is not directly related to a drug toxicity of Ibuprofen?

- Nausea
- Renal dysfunction
- Anemia
- Muscle wasting

**Question 350** [1.00 pt(s) ]
Which of the following is NOT part of the etymology of the word pharmacology?

- Drug
- Herb
- Poison
- Study

**Question 351** [1.00 pt(s) ]
Xenobiotics are considered:

- Endogenous
- Exogenous
- Inorganic poisons
- Toxins

**Question 352** [1.00 pt(s) ]
Which of the following describes an agonist?

- Any substance that brings about a change in biologic function through its chemical action
- A specific regulatory molecule in the biologic system where a drug interacts
- A drug that binds to a receptor and stimulates cellular activity
- A drug that binds to a receptor and inhibits or opposes cellular activity

**Question 353** [1.00 pt(s) ]
Which of the following would be a toxin of biological origin?
Pb
As
Hg
Atropine

Question 354 [1.00 pt(s) ]

The vast majority of drugs have molecular weights (MW) between 100 and 1,000. Large drugs, such as alteplase (t-PA), must be administered:

- Into the compartment where they have their effect
- Orally so they do not absorb too quickly
- Rectally to prevent irritation to the stomach lining and vessels
- Via the intraosseous (IO) route

Question 355 [1.00 pt(s) ]

Which of the following occurs with drugs that are extremely small, such as Lithium?

- Receptor mediated endocytosis
- Vasodilation when injected intravenously (IV)
- Specific receptor binding
- Nonspecific binding

Question 356 [1.00 pt(s) ]

Drugs fit receptors using the lock and key model. Covalent bonds are the ________and the ________specific.

- Strongest; Most
- Strongest; Least
- Weakest; Most
- Weakest; Least

Question 357 [1.00 pt(s) ]

Which of the following is NOT a protein target for drug binding?

- Site of action
- Enzyme
- Carrier molecule
- Receptor

Question 358 [1.00 pt(s) ]

Which of the following is an example of a drug acting directly through receptors?

- Protamine binds stoechiometrically to heparin anticoagulants
- Adrenergic beta blockers for thyroid hormone-induced tachycardia
- Epinephrine for increasing heart rate and blood pressure
- Cancer chemotherapeutic agents
Question 359 [1.00 pt(s) **Shuffle Disabled**]

What determines the degree of movement of a drug between body compartments?

- Partition constant
- Degree of ionization
- Size
- All of the above

Question 360 [1.00 pt(s)]

What is added with drug subclassification, such as an antitubercular drug versus an antibacterial drug?

- Cost
- Size
- Ionization
- Precision

Question 361 [1.00 pt(s)]

Which of the following adverse effects (side-effects) is NOT commonly seen with cholinergic antagonists?

- Urinary retention
- Confusion
- Miosis
- Constipation

Question 362 [1.00 pt(s)]

The drug chloramphenicol is most risky for:

- Neonates
- Geriatric patients
- Adult males
- Congestive heart failure patients

Question 363 [1.00 pt(s)]

A decrease in renal and liver function, as seen in the elderly, would prolong drug half-life, _________ plasma protein binding, and _________ volume of distribution.

- Increase; Increase
- Decrease; Decrease
- Increase; Decrease
- Decrease; Increase

Question 364 [1.00 pt(s)]

Pharmacokinetics is the effect of the _________ and pharmacodynamics is the effect of the _________.
Drug on a drug; Body on the drug
Body on the drug; Drug on a drug
Drug on the body; Body on the drug
Body on the drug; Drug on the body

**Question 365** [1.00 pt(s)]

Which of the following is NOT an action of the body on a drug?

- Absorption
- Distribution
- Metabolism
- Side effects

**Question 366** [1.00 pt(s)]

If a drug is 80% bound to blood elements or plasma proteins, what part is considered the free form?

- 20%
- 50%
- 80%
- 100%

**Question 367** [1.00 pt(s)]

If a patient misses three doses of their daily drug, which of the following (in general) is the best solution?

- Take a 4x dose at the next dose time
- Wait 3 more days (week total) then return to normal regimen
- Do nothing and continue normal regimen
- Prescribe a higher dosage pill so missed doses will have less effect

**Question 368** [1.00 pt(s)]

Which of the following drug permeation mechanisms occurs across epithelial tight junctions and is driven by a concentration gradient?

- Aqueous diffusion
- Lipid diffusion
- Carrier molecules
- Endocytosis and exocytosis

**Question 369** [1.00 pt(s)]

Which of the following tests can determine the long term control of diabetes mellitus?

- Fasting blood sugar level
- Oral glucose tolerance test
- IV glucose tolerance test
- HbA1C level

**Question 370** [1.00 pt(s)]

HbA1C level reflects the control of diabetes mellitus over the last:
1 month
2-3 months
3-4 months
6 months

**Question 371 [1.00 pt(s)]**

The presence of protein in urine indicates:

- liver cirrhosis
- glomerulonephritis
- diabetic ketoacidosis
- severe starvation

**Question 372 [1.00 pt(s)]**

Which of the following is not a cause of hypocalcemia?

- chronic renal failure
- hyperparathyroidism
- hypoparathyroidism
- vitamin D deficiency

**Question 373 [1.00 pt(s)]**

Hyperbilirubinemia could be due to:

- acute renal failure
- hemolysis
- renal stones
- iron deficiency

**Question 374 [1.00 pt(s)]**

Uric acid in the serum should be normally:

- 3 - 7 mg/dl
- 3 - 7 g/dl
- 0.3 - 0.7 mg/dl
- 0.3 - 0.7 g/dl

**Question 375 [1.00 pt(s)]**

A premature baby, now 4 years old, has developed a white coating on her buccal mucosa extending onto her lips. It appears to be painful. What is the most likely causative agent?

- Actinomyces
- Aspergillus
- Candida
- Microsporum

**Question 376 [1.00 pt(s)]**

This urinary pathogen “swarms” across agar surfaces and may cause bladder and renal calculi (stones)

- Citrobacter freundii
Enterobacter aerogenes
Klebsiella oxytoca
Proteus mirabilis

**Question 377** [1.00 pt(s)]

“Rice water stools” are associated with disease caused by which organism

- Vibrio cholera
- Camylobacter jejuni
- Helicobacter pylori
- Shigella dysenteriae

**Question 378** [1.00 pt(s)]

The primary viral cause of diarrhea in young children, globally is

- Cryptosporidium
- Rotavirus
- Adenovirus
- Norovirus

**Question 379** [1.00 pt(s)]

-------- is NOT a virus that commonly causes of severe lower respiratory tract disease in infants

- Adenovirus
- Rhinovirus
- RSV
- Klebsiella Pneumoniae

**Question 380** [1.00 pt(s)]

Which of the following organisms would most likely be associated with gastric ulceration

- Camylobacter jejuni
- Helicobacter pylori
- Shigella dysenteriae
- Enteroinvasive E. coli

**Question 381** [1.00 pt(s)]

An important characteristic of mycobacteria is that they are:

- Gram negative rods
- Rapid growing (doubling time 15 minutes)
- Acid fast staining
- Alpha hemolytic

**Question 382** [1.00 pt(s)]

According to WHO, vaccination has led to the eradication of the following disease

- Poliomyelitis
- Smallpox
Yellow fever virus
Measles virus

**Question 383** [1.00 pt(s)]

Senna preparations can be used for the treatment of :

- Constipation
- Diabetes
- Fever
- Cough

**Question 384** [1.00 pt(s)]

Valeriana can be used for the treatment of :

- Rheumatic pain
- Anxiety and sleep disorders
- Migraine
- Diarrhea

**Question 385** [1.00 pt(s)]

Morphine is an alkaloid obtained from :

- Poppy capsule
- Capsicum fruits
- Hyoscyamus herb
- Anise fruit

**Question 386** [1.00 pt(s)]

Atropine is an :

- Ester alkaloid
- Aliphatic alkaloid
- Aromatic glycoside
- anthracene derivative

**Question 387** [1.00 pt(s)]

Ginkgo preparations are effective as :

- Immunostimulant
- Antidiarrheal
- Expectorant
- Antihelminthic

**Question 388** [1.00 pt(s)]

Liquorice preparations are contraindicated in case of:

- Constipation
- Fever
- Angina pectoris
- Hypertension
**Question 389 [1.00 pt(s)]**

**Diosmin is recommended in case of**

- GIT disorders
- Hypertension
- Heart failure
- Varicose veins

**Question 390 [1.00 pt(s)]**

**Vincristine is used for the treatment of:**

- Congestive heart failure
- Bronchitis
- Vascular disorders
- Cancer

**Question 391 [1.00 pt(s)]**

**Natural biflavonoids are used as:**

- Bulk laxative
- Stimulant laxative
- Antioxidant
- Dietary supplement

**Question 392 [1.00 pt(s)]**

**Ivy preparations are used in:**

- Expectorant preparations
- Digestive preparations
- Slimming preparations
- CNS depressant preparations

**Question 393 [1.00 pt(s)]**

**Menthol is used as:**

- Antiseptic
- Anthelmintic
- Antirheumatic
- Astringent

**Question 394 [1.00 pt(s)]**

**Thymol is classified under:**

- Alkaloids
- Glycosides
- Volatile oils
- Aromatic acids

**Question 395 [1.00 pt(s)]**

**Saponins are characterized by:**
Giving a stable foam in water
Giving temporary foam with water
Giving no foam with water
Giving foam with alcohol only

**Question 396 [1.00 pt(s) ]**

Baby drink use as carminative should contain:

- Fennel
- Capsicum
- Coriander
- Senna pods

**Question 397 [1.00 pt(s) ]**

Quinine is used as an

- Anticoagulant
- Antidepressant
- Antidiabetic
- Antimalarial

**Question 398 [1.00 pt(s) ]**

Clove is used in:

- Tooth pain
- Foot ulcers
- Chest pain
- Rheumatic pain

**Question 399 [1.00 pt(s) ]**

Ginseng preparations can be used:

- In liver disorders
- In cardiac disorders
- In kidney problems
- As immune-stimulant

**Question 400 [1.00 pt(s) ]**

Multiherbal mixture preparations are:

- Safer than single herbal preparations
- Not recommended to all patients
- Recommended for children
- Recommended for pregnant women

**Question 401 [1.00 pt(s) ]**

Natural Slimming preparations should not contain:

- Vitamins
- Unidentified matters
- Nutritional supplements
Question 402 [1.00 pt(s)]

A person suffers from insomnia can drink:

- German chamomile Tea bags
- Ipeca syrup
- Black seed infusion
- Ginseng Tea bags

Question 403 [1.00 pt(s)]

Hyoscine preparations are available as:

- Syrups
- Tablets
- Multiherbal mixtures
- Capsules

Question 404 [1.00 pt(s)]

Aromatherapy components should include:

- Volatile oils only
- Fixed oils and volatile oils
- Fixed oils only
- Natural Flavonoids

Question 405 [1.00 pt(s)]

Ginger is recommended as:

- As antimicrobial
- Anticoagulant
- Antihypertensive
- Antidepressant

Question 406 [1.00 pt(s)]

Catharanthus herb is the main source of:

- Vincristine
- Ergotamine
- Hyoscyamine
- Nicotine

Question 407 [1.00 pt(s)]

How are prescription drugs different from OTC ones?

- They contain higher amounts of active ingredients
- They don't contain dyes or preservatives
- They're unsafe for use without medical supervision
- They can be toxic

Question 408 [1.00 pt(s) **Shuffle Disabled**]
You should follow certain precautions when you self-treat with OTC drugs. What should you do?

- Diagnose your health problem carefully
- Read the label carefully and follow dosage instructions
- Follow any label warnings
- All of the above

**Question 409 [1.00 pt(s) ]**

Aspirin can cause problems with which of these conditions?

- Asthma
- Bronchitis
- Sinusitis
- Low blood pressure

**Question 410 [1.00 pt(s) ]**

People allergic to aspirin may also be allergic to which other OTC drugs?

- Naproxen
- Acetaminophen
- Epinephrine
- Steroid

**Question 411 [1.00 pt(s) ]**

You can take nonsteroidal anti-inflammatory drugs safely for a maximum duration before seeing a doctor for a diagnosis?

- 1 to 3 days
- 7 to 10 days
- 3 to 5 days
- 30 days

**Question 412 [1.00 pt(s) ]**

Older adults are especially vulnerable to the side effects of which of these OTC drugs?

- Laxatives
- Pain killers
- Antihistamines
- Topical NSAIDs

**Question 413 [1.00 pt(s) ]**

Many OTC medications for children come in liquid form. What is the best way to measure the dosage?

- Use a kitchen tablespoon
- Use a kitchen teaspoon
- Use a special dosing spoon
- Any spoon would work

**Question 414 [1.00 pt(s) ]**

What should you look for when you select an OTC drug?
Question 415 [1.00 pt(s) ]

In iron intoxication, the most affected organs include:

- The heart and liver because ferritin is greatly abundant in those organs for excess iron to build up and causes tissue destruction.
- The kidney because ferritin is greatly abundant in those organs for excess iron to build up and causes tissue destruction.
- The brain because ferritin is greatly abundant in those organs for excess iron to build up and causes tissue destruction.
- Red blood cells

Question 416 [1.00 pt(s) ]

Which of the following is true in Tricyclic Antidepressants (TCA) intoxication?

- TCA blood serum concentration is a main diagnostic tool
- ECG can be used to predict the likelihood of subsequent serious neurologic (eg, seizure) toxicity
- Brain CT scan must be used in conjunction with physical findings to guide therapy.
- Ipecac should be used as a first line treatment within 4 hours post ingestion

Question 417 [1.00 pt(s) ]

Which of the following is true of Iron toxicity phase two?

- It occurs 14-24 hours post ingestion
- It is usually asymptomatic
- It consists of marked systemic toxicity caused by this mitochondrial damage and hepatocellular injury
- Iron serum levels are increased

Question 418 [1.00 pt(s) ]

In treating Tricyclic Antidepressants (TCA) intoxication which of the following is true?

- Serum alkalinization is the first-line and most effective therapy for arrhythmias.
- Lidocaine is the first-line and most effective therapy for arrhythmias.
- Class 1-A and 1-C agents (eg, procainamide, disopyramide, quinidine, flecainide, encaïnide) are third-line agents
- Amiodarone is the first-line and most effective therapy for arrhythmias

Question 419 [1.00 pt(s) ]

Which of the following is true of Iron toxicity management?

- Bowel decontamination with whole bowel irrigation and chelation using intravenous administration of deferoxamine are two options used in iron intoxication treatment.
- Gastric lavage is highly recommended in iron intoxication treatment.
- Hemoperfusion is useful in iron intoxication treatment.
- Serum alkalinization is the first-line and most effective therapy in iron intoxication
Question 420 [1.00 pt(s)]

Narcotic toxidrome includes:

- Salivation
- Lacrimation
- Hypertension
- Respiratory depression

Question 421 [1.00 pt(s)]

Pediatric patients younger than five years appear to recover better than adults after Acetaminophen poisoning; the mechanism is be due to the fact that:

- Pediatrics have a higher volume of distribution
- Pediatrics have an enhanced detoxification of NAPQI
- Pediatrics have a decrease in glutathione stores
- Pediatrics have a higher metabolic CYP3A4 rate

Question 422 [1.00 pt(s)]

A 53-year-old woman ingests half of a bottle of aspirin tablets and later presents to the emergency department with gastrointestinal pain and vomiting. The treatment of this patient would include administration of:

- Sodium bicarbonate because it increases ionization of salicylate in the urine
- Sodium bicarbonate because it decreases ionization of salicylate in the urine
- Ascorbic acid because it increases ionization of salicylate in the urine
- Ascorbic acid because it decreases ionization of salicylate in the urine

Question 423 [1.00 pt(s)]

A 33-year-old woman is brought to the emergency department after ingesting a large but unknown quantity of acetaminophen. Use of N-acetylcysteine in the treatment of this patient is based on the goal of:

- Inhibiting drug absorption
- Increasing drug elimination
- Inactivating a toxic metabolite
- Decreasing target receptor binding

Question 424 [1.00 pt(s)]

A two-year-old boy reportedly ate 12 grape flavored chewable acetaminophen tablets that he found in the bathroom two hours ago. He has already had two episodes of vomiting. His mother calls the poison center and asks for advice. She states that her son is now playful and “looks fine.” What recommendations would you give to his mother (Assume you can recommend a treatment)?

- Bring the patient to the ER
- Give the patient activated charcoal
- Give the patient ipecac
- Nothing needs to be done

Question 425 [1.00 pt(s)]

Which of the following is a potential secondary drug-induced cause of hypertension?
Acetaminophen
Orlistat
Phenylpropanolamine
Dextromethorphan

**Question 426** [1.00 pt(s)]

Which of the following patients is at very high risk for cardiovascular disease and should immediately receive a medication to lower blood pressure?

- A 58-year-old woman with diabetes and a baseline blood pressure of 128/75 mm Hg
- A 45-year-old man with uncomplicated hypertension and a baseline blood pressure of 140/86 mm Hg
- A 68-year-old man with heart failure and a baseline blood pressure of 150/88 mm Hg
- A 35-year-old man with dyslipidemia and a baseline blood pressure of 140/86 mm Hg

**Question 427** [1.00 pt(s)]

Which of the following would be most appropriate for a patient with hypertension who has had a myocardial infarction?

- Nifedipine
- Doxazosin
- Metoprolol
- Acebutolol

**Question 428** [1.00 pt(s)]

Which of the following is the most appropriate blood pressure goal for a 65-year-old African-American with hypertension and no other medical problems?

- <140/90 mm Hg
- <130/85 mm Hg
- <130/80 mm Hg
- <125/75 mm Hg

**Question 429** [1.00 pt(s)]

In order to minimize the risk of hypokalemia from diuretics, the most appropriate strategy would include

- limiting the dose of hydrochlorothiazide
- using loop diuretics.
- using potassium-sparing diuretics as the primary therapy.
- having all patients switch their dietary salt to potassium chloride salt substitutes.

**Question 430** [1.00 pt(s)]

Which of the following is an appropriate agent and starting dose for a patient with uncomplicated hypertension?

- Atenolol 25 mg once daily
- Atenolol 100 mg once daily
- Propranolol 80 mg twice daily
- Propranolol 120 mg twice daily
**Question 431** [1.00 pt(s)]

Which drug is most likely to cause vasodilation-type side effects (headache, flushing) because it blocks the movement of calcium across smooth muscle cells?

- Propranolol
- Captopril
- Clonidine
- Verapamil

**Question 432** [1.00 pt(s)]

When patients with renal insufficiency develop severe cough from ACE inhibitors, what would be the best alternative to provide renal protection?

- Propranolol
- Hydrochlorothiazide
- Losartan
- Doxazosin

**Question 433** [1.00 pt(s)]

Which of the following is true concerning clonidine?

- It has been used for smoking cessation and narcotic withdrawal.
- It can cause systemic lupus.
- It can cause hemolytic anemia.
- It has been used to treat benign prostatic hypertrophy.

**Question 434** [1.00 pt(s)]

Which agent causes so much fluid retention and tachycardia that it should be used along with a diuretic and a beta blocker?

- Diltiazem
- Minoxidil
- Captopril
- Losartan

**Question 435** [1.00 pt(s)]

Which of the following is a contraindication to enalapril?

- Bilateral renal artery stenosis
- A pheochromocytoma
- Undetected diabetes
- A family history of end-stage renal failure

**Question 436** [1.00 pt(s)]

What potential side effects would you mention to a patient recently started on nifedipine?

- Increased hair growth (hirsutism)
- Painful or swollen breasts (gynecomastia)
- Systemic lupus
- Leg edema
Question 437 [1.00 pt(s)]
Which drug is most likely to cause vasodilation because it blocks postsynaptic alpha receptors?

- Propranolol
- Prazosin
- Verapamil
- Clonidine

Question 438 [1.00 pt(s)]
A 39-year-old woman with hypertension is taking HCTZ, enalapril and diltiazem. She desires to become pregnant. The most important step would be to

- switch HCTZ to furosemide
- switch diltiazem to amlodipine
- discontinue diltiazem.
- discontinue enalapril.

Question 439 [1.00 pt(s)]
Which one of the following nondrug measures is likely to be most effective to lower blood pressure chronically?

- Reduce caffeine
- Start biofeedback
- Lose 7 Kg
- Begin garlic capsules

Question 440 [1.00 pt(s)]
The agent of choice for a patient with diabetes is

- propranolol.
- doxazosin.
- clonidine.
- enalapril.

Question 441 [1.00 pt(s)]
A 23-year-old healthy volunteer male received an intravenous dose of 2 mg of a new drug during a clinical trial. The drug follows first-order, one-compartment model kinetics and has a volume of distribution of 10 L. After 6 hours the plasma concentration of the drug was 50 μg/ L. Which of the following is most likely the half-life of the drug

- 1 hour
- 3 hours
- 4 hours
- 6 hours

Question 442 [1.00 pt(s)]
In chlorates poisoning, a 20% methemoglobinemia was observed. The recommended treatment is:

- hyperbaric oxygen
the administration of methylene blue 1% solution IV
the administration of a sodium thiosulfate solution
the administration of Glutathion

Question 443 [1.00 pt(s)]

Chlorpromazine:

- causes hemolytic anemia by direct action on the red blood cell
- causes agranulocytosis
- causes pancytopenia
- causes hemolytic anemia via an immunoallergic mechanism

Question 444 [1.00 pt(s)]

Which of the following toxic substances causes thrombocytopenia:

- acetaminophen
- acenocoumarin
- As203
- Vancomycin

Question 445 [1.00 pt(s)]

Unpredictable hepatic toxicity is characterized by:

- a short latency period
- slow recurrence after re administration
- a low incidence of appearance
- a dose effect relationship

Question 446 [1.00 pt(s)]

The involvement of the proximal tubular brush border is assessed by the quantitative determination of:

- LDH.
- NAG.
- Gamma GT.
- glutamate dehydrogenase.

Question 447 [1.00 pt(s)]

Renal toxicity of gentamicin is essentially evaluated by assaying:

- D- β-glucosidase.
- alKaline phosphatase
- NAG
- leucine aminopeptidase

Question 448 [1.00 pt(s)]

The optimum efficiency of active charcoal is obtained:

- after the administration of syrup of ipecac
- 2 hours after oral intoxication
- 30 minutes after oral intoxication
in combination with cholestyramine

**Question 449 [1.00 pt(s)]**

To quickly induce vomiting (1-3 minutes), use:

- apomorphine
- syrup of ipecac
- BAL
- sodium chloride

**Question 450 [1.00 pt(s)]**

Renal extra purification methods can:

- Apply to cytotoxic poisons
- Eliminate high molecular weight substances > 1500
- Be applied to substances having a low volume of distribution
- Be applied to substances with a high volume of distribution

**Question 451 [1.00 pt(s)]**

The periportal necrosis is experimentally caused by:

- Galactosamine
- Acetyl hydrazine
- Acetaminophen
- Allyl alcohol

**Question 452 [1.00 pt(s)]**

Gastric lavage is contra-indicated in the following cases except one:

- Ingestion of Flash (household product containing sodium hydroxide)
- Ingestion of detergents
- Ingestion of paracetamol
- Coma

**Question 453 [1.00 pt(s)]**

Methylene blue:
I. Is used in the treatment of methemoglobinemia higher than 10%
II. Induces methemoglobinemia
III. Is available as a solution of 5%
IV. Acts through its leuco derivatives
V. Is avoided in cirrhotic subjects
The correct answer is:

- I and III
- II and IV
- I and IV
- III and V

**Question 454 [1.00 pt(s)]**

Lead poisoning in children is characterized by:

- The appearance of a Burton border
- macrocytic hypochromic and anemia
Gastrointestinal disorders: diarrhea
nervous disorders: encephalopathy

Question 455 [1.00 pt(s) ]

Buprenorphine:
- Is a morphinomimetic to hexacyclic structure
- Is an opioid antagonist
- Is a morphinomimetic to diphenylpropylamine structure
- Is a phenylpiperidine to tetracyclic structure

Question 456 [1.00 pt(s) ]
The respiratory depression encountered during a salicylate poisoning is observed at a concentration of:
- <450 mg / L
- <650 mg / L
- >650 and <900 mg / L (+)
- >900 mg / L

Question 457 [1.00 pt(s) ]
Cardiovascular disorders observed in poisoning with ethylene glycol:
- correspond to lesions caused by inclusions of calcium oxalate crystals
- are always benign tachycardia and moderate hypotension
- begin within 4 hours of exposure
- always follow the onset of pulmonary edema

Question 458 [1.00 pt(s) ]
A subject in coma was admitted to the hospital emergency department. He presented with metabolic acidosis and methanolemia 0.65 g / L. The correction of acidosis followed by detoxification should be done by:
- hemoperfusion
- Peritoneal dialysis
- The administration of diuretics
- Hemodialysis

Question 459 [1.00 pt(s) ]
An overdose of benzodiazepines is characterized by the following clinical signs:
- Muscle twitching and fasciculation
- Hallucinations and confusion
- Hyperventilation and tachycardia
- Drowsiness and clouding

Question 460 [1.00 pt(s) ]
Delirium tremens corresponding to acute symptoms of alcohol malabsorption is characterized by the following clinical signs:
- Slow Pulse
- High hyperthermia
Transient hallucinations that are often nocturnal
Ocular paralysis

**Question 461** [1.00 pt(s)]

**Alcoholism: The overload condition:**

- Is observed when alcohol intake reaches 50% of caloric intake
- Represents a pathophysiological complex of malnutrition
- Is related to an increase of triglyceride synthesis
- Is never associated with hepatic steatosis, first step in the progression to cirrhosis

**Question 462** [1.00 pt(s)]

One of the following clinical signs is consistently observed at a salicylic plasma level of 700 mg / L:

- hyperthermia
- Pulmonary edema
- Convulsions
- Circulatory collapse

**Question 463** [1.00 pt(s)]

An elderly was urgently admitted to a hospital. He is in a coma with respiratory and cardiovascular depression and drop in blood pressure. Urinalysis by GC-MS revealed the presence of 2-amino - 5-nitrobenzophenone. It is concluded as the absorption of massive doses of:

- methyl parathion
- Flunitrazepam
- Nitrazepam
- Flunitrazepam or Nitrazepam

**Question 464** [1.00 pt(s)]

The treatment of poisoning with tricyclic antidepressants is:

- Gastric lavage and administration of activated charcoal
- Administration of acetylcysteine
- extrarenal Treatment
- massive Alkalinization by THAM

**Question 465** [1.00 pt(s)]

What acid-base disorder is usually observed at the start of acute poisoning with salicylates?

- Respiratory acidosis
- Joint Acidosis
- Respiratory alkalosis
- Metabolic Acidosis

**Question 466** [1.00 pt(s)]

All of these statements concerning cyclosporine are corrects EXCEPT:

- It is a highly lipophilic immunosuppressive drug
It has a strong affinity for the erythrocyte
It has low bioavailability
It has essentially a hepatic elimination

Question 467 [1.00 pt(s)]

The Therapeutic Drug Monitoring is recommended for all the below drugs EXCEPT:

- Antiepileptics
- Aminoglycosides
- Digitalis
- Anti-vitamin K

Question 468 [1.00 pt(s)]

The therapeutic range for digoxin in adults is:

- 0.8 to 2 ng / mL
- 0.8 to 2 mg / mL
- 1 to 2.5 ng / mL
- 1.5 to 4 mg / mL

Question 469 [1.00 pt(s)]

Which of the following statements of Vancomycin is CORRECT?

- It is a Broad-Spectrum Antibiotic
- It has a half-life greater than 50 hours
- It is active against MRSA
- It is hematotoxic

Question 470 [1.00 pt(s)]

Phenytoin is characterized by all of the followings EXCEPT:

- Phenytoin is not bound to albumin
- It is mainly eliminated via CYP2C9
- Its clearance is concentration-dependant
- It induces a concentration dependant side effects

Question 471 [1.00 pt(s)]

All the following concerning isoniazid are correct EXCEPT:

- It mainly produces an inactive metabolite
- It presents a polymorphism in acetylation
- The dosage adjustment is primarily based on its t½
- It induces a risk of hepatotoxicity in poor metabolizers

Question 472 [1.00 pt(s)]

Which of the following changes is observed in pregnant women:

- The pulmonary blood flow is decreased
- A significant increase in phase II metabolic reactions
- A significant increase in the apparent volume of distribution
GFR is usually not altered

**Question 473 [1.00 pt(s)]**

All the following concerning the passage of a drug from the mother to the child via the mother’s milk is true, EXCEPT:

- Only the unionized form of the drug diffuses into the milk through biological membranes.
- Weak acid drugs pass more easily than weak bases.
- Weak bases are trapped in the milk compartment.
- Blood flow increases during breastfeeding.

**Question 474 [1.00 pt(s)]**

The teratogenicity of all the following drugs has been shown EXCEPT for:

- Lithium
- Acyclovir
- Isotretinoïn
- Valproic Acid

**Question 475 [1.00 pt(s)]**

The first-choice antipsychotic treatment in pregnant women is:

- Haloperidol
- Olanzapine
- Risperidone
- Clozapine

**Question 476 [1.00 pt(s)]**

Which of the following drugs is recommended as first anti-ulcer line treatment in pregnant women:

- Mg hydroxide + Al hydroxide
- Alginate
- Omeprazole
- Misoprostol

**Question 477 [1.00 pt(s)]**

Which of the following anti-ulcer drugs can be used to treat gastric ulcers in pregnant women:

- Ranitidine
- Omeprazole
- Rabeprazole
- Esomeprazole

**Question 478 [1.00 pt(s)]**

If a woman has been treated with thyroxine, when she becomes pregnant, she must:

- Stop immediately the treatment
- Stop processing to avoid kickback condition
- Continue thyroxine throughout pregnancy
Do abortion

**Question 479 [1.00 pt(s)]**

Which of the following products is a preferred treatment for tyrotoxicosis in pregnant women:

- Metamizol
- Propranolol
- Non-radioactive iodine
- Propyl ThioUracil (PTU)

**Question 480 [1.00 pt(s)]**

A 17-year-old boy took a tablet of naproxen for headache. Naproxen is a weak acid with a pKa of 5.2. What percentage of the drug is most likely water soluble in the patient’s plasma?

- 1%
- 50%
- 70%
- > 99%

**Question 481 [1.00 pt(s)]**

A 12-year-old boy recently diagnosed with type 1 diabetes started a therapy with two daily subcutaneous administrations of insulin. Which of the following transport mechanisms best explains the absorption of insulin from the site of injection?

- Passive diffusion
- Facilitated diffusion
- Endocytosis
- Active transport

**Question 482 [1.00 pt(s)]**

A 22-year-old woman suffering from asthma was prescribed albuterol by inhalation. Albuterol is a bronchodilator with a molecular weight of 239 Daltons. Which of the following transport mechanisms most likely accounts for the transfer of the drug through the bronchial mucosa?

- Aqueous diffusion
- Lipid diffusion
- Facilitated diffusion
- Active transport

**Question 483 [1.00 pt(s)]**

A 36-year-old woman recently treated with metronidazole for her trichomoniasis. The drug has a hepatic clearance of 4.86 L/h and a renal clearance of 0.54 L/h. On the assumption that only the liver and kidney are involved in the elimination of this drug, what percentage of the administered drug will be eliminated by the liver?

- 20%
- 50%
- 70%
- 90%
Question 484 [1.00 pt(s) ]

A 59-year-old Japanese man with atrial fibrillation presented to his physician complaining of red urine. The man had been receiving a standard dose of warfarin that is an anticoagulant drug biotransformed by CYP2C9 isozyme. Which of the following is the most likely cause of the patient’s problem?

- Increased protein binding of warfarin
- Decreased renal excretion of warfarin
- Genetic polymorphism of CYP2C9
- Increased CYP2C9 synthesis in a person of Asian origin

Question 485 [1.00 pt(s) ]

The pharmacokinetics of a new drug that follows first-order, one-compartment model kinetics was studied in a healthy volunteer. A 20-mg dose was given intravenously. The plasma concentration of the drug turned out to be 2 mg/L initially and 1 mg/L 2 hours later. What is the most likely volume of distribution of the drug (in liters)?

- 10
- 5
- 40
- 20

Question 486 [1.00 pt(s) ]

A 63-year-old man was recently diagnosed with hypertension; he started a treatment of HCTZ, one tablet daily. HCTZ is an acidic drug with a pKa of about 9. Which of the following parts of the digestive tract most likely represents the main site of absorption of that drug?

- Stomach
- Colon
- Rectum
- Small intestine

Question 487 [1.00 pt(s) ]

A 69-year-old woman was brought to a local hospital emergency department by her son, who reported that his mother was found lethargic, disoriented, and combative a few hours earlier. In addition, she had ingested a large number of aspirin tablets in a suicide attempt. An appropriate therapy was instituted, which included the administration of sodium bicarbonate to increase the elimination of salicylate. Which of the following best explains the mechanism of the increased elimination?

- Decreased tubular active transport of salicylate
- Decreased bioavailability of salicylate
- Urinary ion trapping of salicylate
- Increased glomerular filtration of salicylate

Question 488 [1.00 pt(s) ]

A 44-year-old man took a large dose of acetaminophen in aqueous solution to treat a strong headache. Two hours later, the pain was not still the same. Because acetaminophen should be effective in about 30 minutes after its oral administration, which of the following conditions most likely delayed the oral absorption of the drug in this patient?

- A moderate increase in intestinal peristalsis
- The presence of a strong pain
A large volume of distribution of the drug
A very low clearance of the drug

Question 489 [1.00 pt(s)]

A 4-year-old boy suffering from acute lymphoblastic leukemia was about to receive an intrathecal injection of methotrexate, a drug that cannot cross the blood–brain barrier. Which of the following statements best explains why methotrexate cannot easily enter the brain?

- Cerebrospinal fluid pressure is lower than cerebral perfusion pressure.
- The pH of cerebrospinal fluid is lower than plasma pH.
- Endothelial cells of brain capillaries and choroid plexus have tight junctions.
- Methotrexate is completely ionized in blood

Question 490 [1.00 pt(s)]

Drug absorption is affected by food intake. Which of these Food-Drug interactions is incorrect:

- Tea delays the absorption of iron
- Milk slows the absorption of Fluor
- The absorption of ciprofloxacin is enhanced in the presence of milk
- The absorption of Itraconazole is enhanced in the presence of soft drinks/ carbonated beverages

Question 491 [1.00 pt(s)]

Enalapril is orally absorbed as enalaprilat that is an ethyl ester salt. This could be explained by the fact that the ester form:

- Is absorbed by an active transport system
- Undergoes hydrolysis in the stomach, thus it is dissolved faster
- It is more permeable to the intestinal membrane
- It has a lower molecular weight

Question 492 [1.00 pt(s)]

Which of the following statements is true regarding niacin?

- Absolutely contraindicated in patients with hyperuricemia
- Associated with risk of hypoglycemia
- SR niacin is the most hepatotoxic dosage form of niacin
- Highly effective for LDL-C reduction

Question 493 [1.00 pt(s)]

A 66 year-old male with CAD, DMII and HTN was started on bisoprolol and ramipril. Few days after starting the drug therapy he developed a severe swelling in his tongue and neck and could barely breathe. Which of the following would you recommend?

- Stop ramipril abruptly and start aliskiren
- Stop ramipril abruptly and start lisinopril
- Stop ramipril abruptly and start valsartan
- Continue ramipril and add valsartan

Question 494 [1.00 pt(s)]
SF is a 75 year old male with a baseline BP of 170mmHg, has been treated with valsartan 160mg and hydrochlorothiazide 25mg as a single pill taken once daily. He presents to the physician and his BP is 137/84 mmHg. Which of the following would you recommend?

- Add amlodipine
- Add lisinopril
- Add furosemide
- No change in the regimen

**Question 495 [1.00 pt(s)]**

A 39-year-old pregnant female in her 7th month presents to her gynecologist for her monthly work up. Upon physical exam her BP is 158/95mmHg and urinanalysis reveals proteinuria. Which of the following would you consider?

- No antihypertensive treatment since the SBP is<160mmHg
- Start lisinopril
- Start bisoprolol
- Start labetalol

**Question 496 [1.00 pt(s)]**

An 80-year-old man has a past medical history of hypertension (for the past 10 years), and migraine headaches. His BP today is 158/72 mm Hg (156/70 mm Hg when repeated), heart rate is 58 beats/minute, serum creatinine is 1.2 mg/dL, and potassium is 4.3 mEq/L. He is currently on lisinopril 40 mg daily and verapamil SR 240 mg daily, weighs 73 kg, is 70 in tall, smokes cigarettes 1 pack/daily, and consumes two to three ethanol-containing drinks weekly. Which is the most appropriate recommendation to add to his antihypertensive regimen?

- Spironolactone 25 mg daily
- Amlodipine 5 mg daily
- Losartan 50 mg daily
- Hydrochlorothiazide 12.5mg daily

**Question 497 [1.00 pt(s)]**

A 65-year-old male known to have hypertension and dyslipidemia, on amlodipine 5mg po once daily and atorvastatin 20mg po once daily respectively. He reports no symptoms and explains, “he has never felt any better”. He presents today to the physician for regular follow up. His BP is 128/80mmHg which of the following would you consider?

- Keep on the same regimen and encourage on continued compliance to drug and non pharmacological treatment
- Increase the dose of amlodipine to 10mg orally once daily to reach a SBP<120mmHg
- Decrease the dose of amlodipine to 2.5mg once daily to increase the SB
- Add hydrocholothiazide 25mg po once daily

**Question 498 [1.00 pt(s) **Shuffle Disabled**]**

A 65-year-old black female recently diagnosed with hypertension and diabetes. She is known to have hyperuricemia with 2 gout attacks in the previous year. Her lab tests are all normal and when asked about allergies, she has no known food or drug allergies. The physician is asking for your recommendation. Which of the following would you recommend according to JNC8 guideline?

- Hydrochlorothiazide (CI in gout)
- Nitrendipine
Ramipril
Any of the above

Question 499 [1.00 pt(s)]

A 65-year-old male with hypertension and diabetes developed recently renal dysfunction with albuminuria. Today his CrCl is 40ml/min and his BP is 148/95mmHg. What is the goal BP according to JNC8?

- <150/90mmHg
- <140/90mmHg
- <140/85mmHg
- <130/80mmHg

Question 500 [1.00 pt(s)]

Which of the following statins is recommended for a pregnant woman with dyslipidemia?
A- Atorvastatin
B- Rosuvastatin
C- Lovastatin
D- None of the above

Atorvastatin
Rosuvastatin
Lovastatin
None of the above

Question 501 [1.00 pt(s)]

Which treatment would be most appropriate for a 58-year-old female with type 2 diabetes and total cholesterol 210 mg/dL, HDL cholesterol 52 mg/dL, triglycerides 958 mg/dL, and LDL cholesterol 131 mg/dL?

- Fenofibrate 160 mg daily
- Atorvastatin 40 mg daily
- Pravastatin 20 mg daily
- Cholestyramine twice daily

Question 502 [1.00 pt(s)]

A 45 year-old male overweight but otherwise healthy performed a routine yearly checkup. The results were the following: BP: 135/85mmHg, Fasting blood glucose 115mg/dl, TG180mg/dl, LDL195mg/dl, HDL38mg/dl. which of the following would you recommend at this point?

- Start antihypertensive drug with Hydrochlorothiazide
- Start antihyperlipidemic drug with simvastatin 40mg
- Start antihyperlipidemic drug with rosuvastatin 20mg
- Drug therapy is not yet indicated so just counsel on non-pharmacologic treatment

Question 503 [1.00 pt(s)]

A 56-year-old female who smokes two packs of cigarettes per day is admitted to the emergency room with severe left-sided chest pain and numbness down her left arm. She is diagnosed with acute coronary syndrome and her lipid profile was obtained in the emergency room and reveals the following: total cholesterol 229 mg/dL, HDL cholesterol 48 mg/dL, triglycerides 147 mg/dL, and LDL 152 mg/dL. What would be the most appropriate lipid-lowering therapy?
Drug therapy is not beneficial and is not indicated
- Ezetimibe 10 mg daily
- Omega-3 fatty acids 1 g twice daily
- Atorvastatin 80 mg daily

Question 504 [1.00 pt(s)]

A 42-year-old woman with type 2 diabetes mellitus and HTN treated with a sulfonylurea, and ramipril respectively. Her TG340 mg/dL, and HDL42 mg/dL and LDL168mg/dL. Based on pooled cohort equations, it was found that DR's 10-yr risk for developing a ASCVD event is 6.7%. What is the most suitable drug to be initiated in DR at this stage?

- Lovastatin 20mg
- Simvastatin 10mg
- Atorvastatin 20mg
- Rosuvastatin 20mg

Question 505 [1.00 pt(s)]

A 38-year-old woman with hyperlipidemia presents to the primary care clinic with worsening muscle aches. Her total cholesterol was 268 mg/dL, her LDL was 167 mg/dL, her HDL was 42 mg/dL, and her triglyceride was 254 mg/dL during her last visit. The decision was made to add another lipid-lowering medication to her simvastatin. She never had muscle aches before and is wondering if the new medication is causing her new pain. What medication was most likely added to her simvastatin?

- Cholestyramine
- Colestipol
- Ezetimibe
- Gemfibrozil

Question 506 [1.00 pt(s)]

A 35 year old woman appears to have familial combined hyperlipidemia. Her serum concentrations of total cholesterol, LDL cholesterol, and triglycerides are elevated. Her serum concentration of HDL cholesterol is somewhat reduced. Which of the following drugs is most likely to increase this patient’s triglyceride and VLDL cholesterol concentrations when used as monotherapy?

- Atorvastatin
- Cholestyramine
- Ezetimibe
- Gemfibrozil

Question 507 [1.00 pt(s)]

Which of the following is a major toxicity associated with gemfibrozil therapy?

- Bloating and constipation
- Cholelithiasis
- Hyperuricemia
- Liver damage

Question 508 [1.00 pt(s)]

The pleiotropic effects of statins include:
Enhanced fibrinogen expression
Decreased nitric oxide production
Decreased inflammation
Enhanced smooth muscle remodeling

Question 509 [1.00 pt(s)]

According to the new recommendations for cholesterol management from the ACC/AHA, all of the following patients should be considered for statin therapy except:

- A 30-year-old healthy man with an LDL of 165 mg/dL and no CV risk factors
- A 46-year-old healthy woman with a history of diabetes and an LDL of 80 mg/dL
- A 60-year-old man with an LDL of 110 mg/dL and a 10-year estimated risk for CV disease of 10%
- A 45-year-old man with a history of ischemic stroke and unknown LDL level

Question 510 [1.00 pt(s)]

Which of the following antihypertensive agents should be avoided in elderly patients?

- Amlodipine 5 mg every day
- Atenolol 25 mg every day
- Methyl-dopa 250 mg every day
- Hydrochlorothiazide 25 mg every day

Question 511 [1.00 pt(s)]

Magnesium hydroxide is used in all of the following EXCEPT:

- Heartburn
- Dyspepsia
- Hemorrhoids
- Constipation

Question 512 [1.00 pt(s)]

The primary nonprescription pharmalogical treatment for pain associated with dysmenorrhea is:

- Nonsteroidal anti-inflammatory drugs
- Narcotic analgesics
- Salicylates
- All of the above

Question 513 [1.00 pt(s)]

The main cause for nausea and vomiting in pregnant woman is:

- Iron deficiency
- Hormonal changes
- To attract attention
- Fear of gaining weight

Question 514 [1.00 pt(s)]

Which of these molecules have intrinsic sympathomimetics effect:

- Labetalol
Question 515 [1.00 pt(s)]

Which of the following benzodiazepines is expected to cause the least amount of adverse effects in elderly?

- Chlordiazepoxide
- Diazepam
- Lorazepam
- Flurazepam

Question 516 [1.00 pt(s)]

Live attenuated vaccine:

- Rubella
- Influenza
- Diphtheria
- None of the above

Question 517 [1.00 pt(s)]

Cephalosporin acts as:

- Inhibitors of cell membrane function synthesis
- Inhibitors of nucleic acid
- Inhibitors of protein synthesis
- Inhibitors of cell wall synthesis

Question 518 [1.00 pt(s)]

A 12-year-old boy is brought to your office by his grandmother. While spending the weekend at a farm, he became ill and developed symptoms including nausea, vomiting, gastrointestinal cramps, diarrhea, confusion & tear formation. Upon examination you notice that the muscles in his arms & legs are exhibiting random "twitches", his pupils are constricted, and he has labored breathing. The first drug of choice to treat this patient's condition would be:

- Atropine
- EDTA
- Flumazenil
- Naloxone

Question 519 [1.00 pt(s)]

Which of the following antiarrhythmic agents requires adjustment in patients with renal function impairment?

- Verapamil
- Lidocaine
- Amiodarone
- propafenone

Question 520 [1.00 pt(s)]

Which of the following antipsychotics is most likely to cause anticholinergic side effects?

- Aripiprazole
Olanzapine
Risperidone
Paliperidone

**Question 521 [1.00 pt(s)]**

Which of the following antipsychotics acts as a partial agonist at 5-HT\textsubscript{1A} receptors?

- Aripiprazole
- Haloperidol
- Risperidone
- Olanzapine

**Question 522 [1.00 pt(s)]**

When taking oral contraceptive with erythromycin:

- The erythromycin increases contraceptive effect
- The contraceptive increases erythromycin effect
- The erythromycin decreases contraceptive effect
- The contraceptive decreases erythromycin effect

**Question 523 [1.00 pt(s)]**

Doxorubicin side effect:

- Cardiac toxicity
- Nephrotoxicity
- Postural hypotension
- Arrhythmia

**Question 524 [1.00 pt(s)]**

Which of the following agents can be used alone to protect against sexually transmitted infections?

- Contraception foam
- Contraceptive sponge
- Female condom
- Diaphragm

**Question 525 [1.00 pt(s)]**

A patient with major depression should receive antidepressant therapy for at least:

- 2 weeks
- 6 weeks
- 2 months
- 6 months

**Question 526 [1.00 pt(s)]**

The most cause of vaginal yeast infections is:

- Candida albicans
- Trichomonas
- Anaerobic bacteria
- None of the above
Question 527 [1.00 pt(s)]

Cough is an adverse effect associated with which of the following medications?

- Ramipril
- Valsartan
- Carvedilol
- Torsemide

Question 528 [1.00 pt(s)]

Acute exacerbations of asthma can be triggered by all of the following EXCEPT:

- Bacterial or viral pneumonia
- Hypersensitivity reaction to penicillin
- Discontinuation of asthma medication
- Hot, dry weather

Question 529 [1.00 pt(s)]

Which of the following factors is associated with an increased risk of noncompliance in elderly?

- Polypharmacy
- Hypertension
- Expensive medications
- Good relationship with physician

Question 530 [1.00 pt(s)]

Levodopa is associated with which of the following problems?

- Gastrointestinal side effects
- Involuntary movements
- Decline in efficacy after 3 to 5 years
- All of the above

Question 531 [1.00 pt(s)]

Which of the following statements is INCORRECT?

Atropine:

- Is an isoquinoline alkaloid
- Causes mydriasis
- Has parasympathomimetic properties
- Is an antidote for the poisoning of the white ellebore

Question 532 [1.00 pt(s)]

Toxicity associated with any chemical substance is referred to as:

- Poisoning
- Intoxication
- Overdosage
- Toxicology

Question 533 [1.00 pt(s)]

Technique in which anticoagulated blood is passed through a column containing activated charcoal or resin particles is referred to as:
Whole bowel irrigation  
Forced diuresis  
Hemodialysis  
Hemoperfusion

**Question 534** [1.00 pt(s)]

Which of the following substances is not easily adsorbed by activated charcoal?

- Iron  
- Ethanol  
- Methanol  
- All of the above

**Question 535** [1.00 pt(s)]

Clinical toxicity, which is secondary to accidental exposure:

- Toxicology  
- Intoxication  
- Poisoning  
- Overdose

**Question 536** [1.00 pt(s)]

A 33 year old woman ingested 15-20 grams of an analgesic known to become metabolized to a toxic quinone amine. A few hours after ingestion she presented to the Emergency Department with signs of nausea, vomiting & generalized malaise. A day later she developed right upper quadrant abdominal pain with elevated plasma AST & ALT levels. The specific antidote to treat this patient in order to prevent liver failure is:

- Acetaminophen  
- Naloxone  
- Aspirin  
- N-acetylcysteine

**Question 537** [1.00 pt(s)]

A 44 year old woman with a history of migraine headaches arrives to the Emergency Department with the chief complaints of GI upset with ringing in her ears (tinnitus), nausea and vomiting. She is febrile; the analysis of her blood gasses & electrolytes indicates the presence of a respiratory alkalosis with a compensatory metabolic acidosis. The drug or class of drugs responsible for her status is (are):

- Antidepressants  
- Beta blockers  
- Caffeine  
- Salicylates

**Question 538** [1.00 pt(s)]

A 17-year-old teenager is brought into the Emergency Department. Upon examination he is found to have dilated pupils, a BP of 160/90 mm Hg, HR 140 beats/min, and temperature of 39°C. He appears agitated & euphoric, with scratching like hand movements on his chest & arms. His ECG indicates a prolonged QTc. The substance most likely responsible for this patient's symptoms is:

- Amphetamines  
- Cocaine  
- LSD  
- Marijuana
**Question 539 [1.00 pt(s)]**

A 17 year old teenager is brought into the Emergency Department by a parent. Upon examination he is found to have dilated pupils, a BP of 160/90 mm Hg, HR 140 beats/min, and temperature of 39°C. He appears agitated & euphoric, with scratching like hand movements on his chest & arms. His ECG indicates a prolonged QTc. The substance most likely responsible for this patient's symptoms is:

- Amphetamine
- Cocaine
- LSD
- Marijuana

**Question 540 [1.00 pt(s)]**

A 61 year old man was seen in the clinic for evaluation of peripheral neuropathy. Upon examination he was found to have dermal hyperpigmentation/depigmentation of his skin, scaly palms, and white transverse ridges on his fingernails attributed to chemical intoxication. The chemical agent that is most likely responsible for causing his symptoms is:

- Arsenic
- Cyanide
- Mercury
- Lead

**Question 541 [1.00 pt(s)]**

Johnny H is 3 year old boy who is brought to the Emergency Department by his mother who states that Johnny has been nauseous and vomiting, and complaining that his stomach hurts. He consumed a chemical stored in their garage. Shortly before coming to the hospital he had black bloody diarrhea. Upon examination he appears to have mild burns around his mouth, and is hypotensive. The ER physician treats him with several doses of tap water and administers a glucocorticoid, explaining that it should help reduce the likelihood of Johnny suffering from "esophageal strictures". The agent or class of agent that Johnny consumed is most likely:

- Carbamate anticholinesterase
- Caustic acid
- Caustic alkali
- Lead containing substance

**Question 542 [1.00 pt(s)]**

A 12 year old boy is brought to your office by his grandmother. While spending the weekend at their strawberry farm, he became ill and developed symptoms including nausea, vomiting, GI cramps, diarrhea, tear formation & confusion; muscles in his arms & legs are exhibiting "twitches", his pupils are constricted, and he has labored breathing. The first drug of choice to treat this patient's condition would be:

- Atropine
- EDTA
- Flumazenil
- Pralidoxime

**Question 543 [1.00 pt(s)]**

An antidote for a drug that causes drowsiness, dizziness, nausea, respiratory depression, bilateral miosis, decreased body temperature, and in overdose, commonly causes death due to respiratory arrest:

- Flumazenil
- Glucose
- Methadone
- Naloxone
**Question 544** [1.00 pt(s)]

Potential outcomes of pharmacogenetic research include all the following EXCEPT:

- Lower incidence of adverse drug effects.
- New drug development
- Higher health care costs
- Improved treatment outcomes

**Question 545** [1.00 pt(s)]

An antidote for a drug that causes drowsiness, dizziness, nausea, respiratory depression, bilateral miosis, decreased body temperature, and in overdose, commonly causes death due to respiratory arrest is:

- Flumazenil
- Glucose
- Protamine sulfate
- Naloxone

**Question 546** [1.00 pt(s)]

Polymorphisms in the multidrug resistance gene most likely would affect which of the following drugs?

- Indinavir
- Nortriptyline
- Captopril
- Simvastatin

**Question 547** [1.00 pt(s)]

The ACE inhibitor-induced cough has been linked to a polymorphism in which gene?

- Multidrug resistance-1
- Angiotensin II type II receptor
- Histamine
- Bradykinin

**Question 548** [1.00 pt(s)]

An 18-year-old woman is rushed to the Emergency Department by her mother. Upon examination she is showing signs of delirium, combativeness, hallucinations, rotary nystagmus, miosis, hyperreflexia & sensory anesthesia. She is also exhibiting muscle rigidity & occasional catatonic posturing. The most probable agent causing these symptoms is?

- Amphetamines
- Cocaine
- LSD
- Phencyclidine

**Question 549** [1.00 pt(s)]

Which of the following is the antidote for Heparin?

- Protamine
- Methylene blue
- N-acetylcysteine
- Glucagon
Question 550 [1.00 pt(s)]
Which of the following anti-neoplastics is used in rheumatoid arthritis:
- Methotrexate
- Cisplatin
- Vincristine
- Vinblastine

Question 551 [1.00 pt(s)]
Cromolyn sodium is used as:
- Prophylactic in allergic rhinitis
- Bronchodilator in bronchial asthma
- Nasal corticosteroid in allergic rhinitis
- Treatment for acute asthmatic attack

Question 552 [1.00 pt(s)]
A patient with moderate hypertension with a history of ischaemic heart disease should be treated with:
- Hydrochlorothiazide
- Atenolol
- Alpha methyl dopa
- Furosemide

Question 553 [1.00 pt(s)]
A patient with moderate hypertension with a history of ischaemic heart disease should be treated with:
- Hydrochlorothiazide
- Atenolol
- Alpha methyl dopa
- Furosemide

Question 554 [1.00 pt(s)]
Which of the following is the antidote for Copper?
- Glucagon
- Aminocaproic acid
- Atropine
- Penicillamine

Question 555 [1.00 pt(s)]
Which is the best treatment for a patient with hypertension and tachycardia:
- Propranolol
- Nifedipine
- Captopril
- Prazocin

Question 556 [1.00 pt(s)]
Long term treatment with corticosteroids causes all the following effects EXCEPT:
Question 557 [1.00 pt(s)]
Oxymetazoline is:
- Sympathomimetic nasal decongestant
- Used orally
- Does not cause rebound congestion
- Not contraindicated in infants

Question 558 [1.00 pt(s)]
Which of the following is most likely to cause rebound hypertension:
- Prazocin
- Clonidine
- Captopril
- Alpha methyl dopa

Question 559 [1.00 pt(s)]
Diuretic used in treatment of edema in a patient with renal failure:
- Loop diuretic
- Spironolactone
- Thiazide
- Mannitol

Question 560 [1.00 pt(s)]
Infliximab is used in:
- Asthma
- Glomerulonephritis
- Chronic inflammatory bowel disease
- Hepatitis

Question 561 [1.00 pt(s)]
What types of viral hepatitis have available vaccines?
- Hepatitis A, B and C
- Hepatitis A and B
- Hepatitis B and C
- Hepatitis A, B and D

Question 562 [1.00 pt(s)]
β-carotene is precursor of:
- Vitamine A
- Vitamine C
- Vitamine D
- Vitamine E
Question 563 [1.00 pt(s)]

Which anti-viral can be used in treatment of parkinsonism:

- Acyclovir
- Ribavirin
- Amantadine
- Indinavir

Question 564 [1.00 pt(s)]

The normal range of K concentration in plasma is:

- 35-45 mEq/L
- 135-145 mEq/L
- 3.5-5.5 mEq/L
- 13.5-15.5 mEq/L

Question 565 [1.00 pt(s)]

A 52 year-old female fell and broke her hip. She has a seizure disorder for which she takes only one medication. Which of the following might mostly be her medication?

- Ethosuximide
- Topiramate
- Lamotrigine
- Phenobarbital

Question 566 [1.00 pt(s)]

Which of the following drugs is not used in acute treatment of migraine headaches?

- Ergotamine
- Imipramine
- Naproxen
- Naratriptan

Question 567 [1.00 pt(s)]

ND, a 56-year-old woman who smokes two packs of cigarettes per day, is admitted to the emergency department with severe left-sided chest pain and numbness down her left arm. She is diagnosed with acute coronary syndrome, is admitted, and undergoes percutaneous transluminal coronary angioplasty of her left main coronary artery. Her lipid profile reveals the following: total cholesterol 229 mg/dL, HDL cholesterol 48 mg/dL, and triglycerides 147 mg/dL. What would be the most appropriate lipid-lowering therapy?

- Ezetimibe 10 mg daily
- Atorvastatin 40 mg daily
- Simvastatin 40mg daily
- Pitavastatin 1mg daily

Question 568 [1.00 pt(s)]

One year later, A.K. presents for a follow-up. He was admitted to the hospital last week with an ST-segment elevation myocardial infarction (STEMI) and discharged after stent placement. He now takes prasugrel 10 mg/day, aspirin 81 mg/day, enalapril 2.5 mg/day, and metoprolol succinate 12.5 mg/day. His blood pressure is 125/75 mm Hg, with several readings; his heart rate is 65 beats/minute, and his ejection fraction is 50%. He has no symptoms of orthostatic hypotension, but he asks whether there is anything should be changed in his treatment. Which one of the following is the best response to A.K.'s inquiry?

- His blood pressure is too low; discontinue metoprolol succinate
- His blood pressure is too low; discontinue enalapril
Reassure him that there is no concern for his blood pressure; no changes are needed
Add Rosuvastatin 20 mg/day

Question 569 [1.00 pt(s)]

A 45-year-old man without any history of cardiovascular disease (CV). His LDL is 194 mg/dL, and his 10-year risk for CV events is calculated to be 5%. What is the best treatment for this patient?

- Atorvastatin 10 mg/day
- Rosuvastatin 20 mg/day
- Pravastatin 20 mg/day
- Simvastatin 20 mg/day

Question 570 [1.00 pt(s)]

Which of the following medications may be used to treat bleeding of esophageal varices by causing vasoconstriction?

- Spironolactone
- Propranolol
- Diphenhydramine
- Octreotide

Question 571 [1.00 pt(s)]

Which of the following anti-emetic agent must be used to prevent delay emesis caused by cisplatin?

- Metochlopramide
- Fosaprepitant
- Domperidone
- Haloperidol

Question 572 [1.00 pt(s)]

Which of the following is not a good option against MRSA?

- Linezolid
- Levofloxacin
- Daptomycin
- Vancomycin

Question 573 [1.00 pt(s)]

A 46-year-old woman recently had a car accident and fractured her hip. If a hip fracture repair surgery is scheduled, what would be an appropriate prophylaxis antimicrobial regimen?

- Piperacillin-tazobactam 3.375 g IV
- Cefazolin 2 g IV
- Cefuroxime 1.5 g IV
- Ceftriaxone 2 g IV

Question 574 [1.00 pt(s)]

A 44-year-old woman with a history of migraine headaches arrives in the emergency department with the chief complaints of gastrointestinal upset with ringing in her ears (tinnitus), nausea and vomiting. She is febrile, and the analysis of her blood gasses & electrolytes indicates the presence of a respiratory alkalosis with a compensatory metabolic acidosis. The drug or class of drugs that is best characterized by this history is (are):
Antidepressants
Beta blockers
Caffeine
Salicylates

Question 575 [1.00 pt(s)]
Which of the following cleansing products would a pharmacist recommend for a patient with inflammatory acne?
- An abrasive facial sponge and soap used four times a day
- Aluminium oxide particles used twice a day
- Sulfur 5% soap used twice a day
- Mild facial soap used twice a day

Question 576 [1.00 pt(s)]
Pharmacists educating patients on acne should mention all of the following EXCEPT:
- Eliminating all chocolate and fried foods from the diet
- Cleansing skin gently two to three times daily
- Using water-based noncomedogenic cosmetics
- Not squeezing acne lesion

Question 577 [1.00 pt(s)]
All of the following are potential treatment options for psoriasis EXCEPT:
- Salicylic acid
- Topical hydrocortisone
- Coal tar
- Ketoconazole

Question 578 [1.00 pt(s)]
The antimalarial to avoid in glucose-6-phosphate dehydrogenase deficiency:
- Primaquine
- Quinine
- Chloroguanide
- None of the above

Question 579 [1.00 pt(s)]
What side effect is not observed with tricyclic antidepressants?
- Dryness of the mouth
- Diarrhea
- Orthostatic hypotension
- Confusion

Question 580 [1.00 pt(s)]
The nonpharmacological recommendation for patients with gastroesophageal reflux is:
- Eat larger but fewer meals
- Avoid meals high in protein
- Eat evening meals at least 3 hrs before bed
- Prop the head up with two pillows at night
**Question 581 [1.00 pt(s) ]**

Which molecule is not used for the treatment of neuropathic pain?

- Gabapentine
- Morphine
- Carbamazepine
- Pregabalin

**Question 582 [1.00 pt(s) ]**

Which molecule is not classified as second-generation antipsychotic?

- Olanzapine
- Quetiapine
- Risperidone
- Haloperidol

**Question 583 [1.00 pt(s) ]**

Which molecule is not used during an acute asthma attack?

- Fluticasone
- Salbutamol
- Salmeterol
- Formoterol

**Question 584 [1.00 pt(s) ]**

The presence of cream to the surface of serum 24 hours after its conservation at +4˚C shows the increase of:

- Chylomicrons
- VLDL (Very low density lipoprotein)
- Cholesterol
- LDL (low density lipoproteins)

**Question 585 [1.00 pt(s) ]**

Which antihistamine molecule has sedative and anticholinergic side effects?

- Cétirizine
- Loratidine
- Ebastine
- Hydroxyzine

**Question 586 [1.00 pt(s) ]**

Which of the following molecules is an enzymatic inhibitor?

- Phenobarbital
- Phenytoin
- Rifampicin
- Fluoxetine

**Question 587 [1.00 pt(s) ]**

Which of these molecules is not a calcium antagonist?
Question 588 [1.00 pt(s)]

Which of these molecules is not an anticoagulant?

- Enoxaparin
- Heparin
- Aspirin
- Acenocoumarol

Question 589 [1.00 pt(s)]

The abdominal obesity is characterized by:

- Excess of abdominal fat
- Excess of fat in the buttocks and thighs
- Excess of fat in the abdominal and gluteo-femoral region characterized by hyperandrogenism
- Characterized by insulin resistance

Question 590 [1.00 pt(s)]

Which of these treatments is not recommended for the management of constipation?

- Lactulose
- Glycerin Suppository
- Bisacodyl
- Sterculia

Question 591 [1.00 pt(s)]

Intestinal amoebiasis: what is the best treatment?

- Cotrimoxazole
- Metronidazole
- Praziquantel
- Tilbroquinol

Question 592 [1.00 pt(s)]

Which of these anthelmintics is used in the treatment of ascariasis?

- Flucytosine
- Praziquantel
- Niclosamide
- Albendazole

Question 593 [1.00 pt(s)]

Which of the following is TRUE? griseofulvin:

- Is active in dermatophytic onychomycosis
- Is used in the treatment of Aspergillosis
- Is used parenterally
- Is the treatment of choice for a ringworm in a child
Question 594 [1.00 pt(s)]

The recommended dose in Calcium for geriatrics is:

- 400 mg
- 600 mg
- 800 mg
- 1200 mg

Question 595 [1.00 pt(s)]

The presence of antitoxoplasmic IgG and IgM in the newborn, proves:

- The child will not develop toxoplasmosis because he or she has antibodies
- The mother has reported toxoplasmosis and the antibodies present in the child are all of maternal origin and have crossed the placenta
- That the toxoplasmosis is old in the mother
- That we must monitor the development of antibodies in children and observe any clinical signs

Question 596 [1.00 pt(s)]

Indicate the test performed in the monitoring and follow up of diabetic patients:

- Peptide C
- HemoglobinA1c
- Insulinemia
- Total Cholesterol

Question 597 [1.00 pt(s)]

A normal platelet count is between ____________ cells/µL and a low platelet count is called ____________.

- 150,000 - 450,000: thrombocytosis
- 150,000 - 450,000: thrombocytopenia
- 100,000 - 350, 000: thrombocytosis
- 100,000 - 350, 000: thrombocytopenia

Question 598 [1.00 pt(s)]

The normal level for triglycerides is:

- Between 150 - 199 mg/dL
- Between 200 - 250 mg/dL
- Below 150 mg/dL
- Below 200 mg/dL

Question 599 [1.00 pt(s)]

Which substance may decrease side effects of methotrexate in patients treated for rheumatoid arthritis?

- Vitamin B12
- Folic acid
- Thiamin
- Riboflavin

Question 600 [1.00 pt(s)]
Which of the following is OTC management of vulvovaginal candidiasis in a 26-year old healthy nonpregnant female?

- Fluconazole 150 mg oral tablet once
- Fluconazole 100 mg oral tablet once weekly for 4 weeks
- Itraconazole 200 mg vaginal suppository for 3 nights
- Clotrimazole vaginal cream bid for 1 week

**Question 601** [1.00 pt(s) ]

Prior to clinical trials in patients with heart failure, an animal study was carried out to compare two new positive inotropic drugs (A and B) to a current standard agent (C). The results of cardiac output measurements are shown in the graph below.

Which of the following statements is CORRECT?

- Drug A is most effective
- Drug B is least potent
- Drug B is more potent than drug C and more effective than drug A
- Drug A is more potent than drug B and more effective than drug C

**Question 602** [1.00 pt(s) ]

To identify neural tube defects of the fetus we need to dose:

- C-reactive protein(CRP)
- Carcinoembryonic antigen(CEA)
- α-fetal protein(AFP)
- Chorionic gonadotropin hormone(hCG)

**Question 603** [1.00 pt(s) ]

The figure below depicts the in vitro log dose–response curves of different drugs acting on the same receptor:

Which of the drugs has the highest affinity for the receptor?

- Drug P
- Drug Q
- Drugs R and S
- Drug T
Question 604 [1.00 pt(s) ]

Which of the following tricyclic antidepressants causes the most anticholinergic side effect?

- Nortriptiline
- Desipramine
- Amitriptyline
- Protriptyline

Question 605 [1.00 pt(s) ]

An agent whose toxic effects include boastfulness, talkativeness, impaired motor coordination, ataxia, slowed reaction time, retinal damage, emesis, and dehydration is:

- Ethanol
- LSD
- Methanol
- Marijuana

Question 606 [1.00 pt(s) ]

The chronic bronchitis is characterized by:

- Destruction of central and peripheral portions of acinus
- Edema and inflammation of the bronchioles
- A decreased number of mucous glands and goblet cells
- All of the above

Question 607 [1.00 pt(s) ]

Full activation of the parasympathetic nervous system is likely to produce which of the following effects?

- Bronchodilation
- Decreased intestinal motility
- Increased thermoregulatory sweating
- Increased pupillary constrictor tone (miosis)

Question 608 [1.00 pt(s) ]

Which of the following is a direct-acting cholinomimetic that is lipid-soluble and is used to facilitate smoking cessation?

- Bethanechol
- Neostigmine
- Physostigmine
- Varenicline

Question 609 [1.00 pt(s) ]

Which of the following drugs is commonly used topically in the treatment of glaucoma?

- Atropine
- Timolol
- Tropicamide
- Scopolamine

Question 610 [1.00 pt(s) ]
In order to reduce the methotrexate toxicity, concomitant administration of what vitamin is recommended?

- Folic acid
- Ascorbic acid
- Riboflavin
- Pyridoxine

**Question 611** [1.00 pt(s)]

The combination of ethanol and disulfiram results in nausea and hypotension as a result of the accumulation of which of the following?

- Acetaldehyde
- Acetate
- Methanol
- NADH

**Question 612** [1.00 pt(s)]

Which drug is an antagonist at 5-HT2 receptors and widely used for the management of insomnia?

- Estazolam
- Trazodone
- Triazolam
- Zolpidem

**Question 613** [1.00 pt(s)]

Which of the following drugs has a high affinity for 5HT2 receptors in the brain, does not cause extrapyramidal dysfunction or hematotoxicity, and increases the risk of QT prolongation?

- Clozapine
- Haloperidol
- Olanzapine
- Ziprasidone

**Question 614** [1.00 pt(s)]

Which of the following opioids has a metabolite with neurotoxic side effects?

- Naloxone
- Meperidine
- Propoxyphene
- Codeine

**Question 615** [1.00 pt(s)]

Which of the following drugs competitively blocks antidiuretic hormone receptors?

- Acetazolamide
- Amiloride
- Conivaptan
- Triamterene

**Question 616** [1.00 pt(s)]

Which of the following is very short acting and acts by releasing nitric oxide directly?
Question 617 [1.00 pt(s) ]

All of the following anticoagulants would be expected to require a reduced dosage in patients with moderate renal dysfunction EXCEPT :

- Apixaban
- Dabigatran
- Rivaroxaban
- Warfarin

Question 618 [1.00 pt(s) ]

AA is a 43-year-old female with a main complaint of hematemesis and abdominal pain. Serology is positive for H.pylori. The best regimen to treat AA is:

- Omeprazole 20 mg daily plus clarithromycine 500 mg b.i.d x 14 days
- Lanzoprazole 30 mg b.i.d plus tetracycline 500 mg q.i.d x 14 days
- Rabeprazole 20 mg b.i.d plus amoxicillin 1 g b.i.d plus clarithromycine 500 mg b.i.d x 7 days
- Pantoprazole 40 mg b.i.d plus amoxicillin 1 g b.i.d plus clarithromycine 500 mg b.i.d x 10 days

Question 619 [1.00 pt(s) ]

A 43-year-old overweight hypertensive woman is newly-diagnosed with type 2 diabetes mellitus, with an HBA1C of 7.5%. Which one of the following is the BEST choice for initial therapy in addition to weight reduction and exercise?

- Metformin
- A sulfonylurea
- A glitazone
- Sitagliptin/saxagliptin

Question 620 [1.00 pt(s) ]

Which of the following is an adverse event reported in clinical trials with Canagliflozin?

- High incidence of hypoglycemia
- Heart failure
- Genital infections
- Lactic acidosis

Question 621 [1.00 pt(s) ]

Which of the following insulin analogs has the longest duration of action?

- Insulin Glargine
- Insulin Degludec
- Insulin Detemir
- Insulin Glulisine

Question 622 [1.00 pt(s) ]

Calamine is composed of:
Zinc oxide and ferric oxide
Talc and ferric oxide
Zinc oxide and talc
Talc and magnesium oxide

Question 623 [1.00 pt(s)]

In order to reduce the methotrexate toxicity, concomitant administration of what vitamin is recommended?

- Folic acid
- Ascorbic acid
- Riboflavin
- Pyridoxine

Question 624 [1.00 pt(s)]

Which of the following agents is recommended as first-line therapy for patients with mild to moderate osteoarthritis?

- Acetaminophen
- Celecoxib
- Diclofenac gel
- Tramadol

Question 625 [1.00 pt(s)]

A very depressed patient took 10 tablets of the antipsychotic medication belonging to her husband. As she was being escorted to the Emergency Department by ambulance in a highly confused mental state, she developed hypotension, tachycardia, tremor, poikilothermia, and muscle rigidity. This was followed by the onset of seizures and a multifocal ventricular arrhythmia (Torsade de pointes), which could not be successfully cardioverted. She was pronounced dead on arrival at the hospital. The medication most likely responsible for this overdose was:

- Aripiprazole
- Chlorpromazine
- Duloxetine
- Olanzapine

Question 626 [1.00 pt(s)]

Johnny H is a 3-year-old boy who is brought to the Emergency Department by his mother who states that Johnny has been nauseous and vomiting, and complaining that his stomach hurts. She is afraid that he may have consumed a chemical stored in their garage. Shortly before coming to the hospital he had black bloody diarrhea. Upon examination he appears to have mild burns around his mouth, and is hypotensive. The ER physician treats him with several doses of tap water and administers a glucocorticoid, explaining that it should help reduce the likelihood of Johnny suffering from "esophageal strictures". The agent or class of agents that Johnny consumed is most likely:

- carbamate anticholinesterase
- caustic acid
- caustic alkalai
- lead containing substance

Question 627 [1.00 pt(s)]

A 61-year-old man was seen in the Neurology Clinic for evaluation of peripheral neuropathy. Upon examination he was found to have dermal hyperpigmentation/depigmentation (salt/pepper) of his skin, scaly palms, and noticeable white transverse ridges on his fingernails that were attributed to chemical intoxication. The chemical agent that is most likely responsible for causing his symptoms is:

- Arsenic
Question 628 [1.00 pt(s)]

A 33-year-old woman ingested 15-20 grams of an analgesic known to become metabolized to a toxic quinone amine. A few hours after ingestion she presented to the emergency department with signs of nausea, vomiting & generalized malaise. A day later she developed right upper quadrant abdominal pain with elevated plasma AST & ALT levels. The specific antidote that should be used to treat this patient in order to prevent liver failure is:

- Amyl nitrate
- Aspirin
- N-acetylcysteine
- Naloxone

Question 629 [1.00 pt(s)]

How do I dispose of my medicines safely at home?

- Mix medicines with an unpalatable substance such as kitty litter or used coffee grounds (do not crush tablets or capsules)
- Place the mixture in a container such as a sealed plastic bag
- Throw the container in your household trash
- All of the above

Question 630 [1.00 pt(s)]

Why should you have a healthcare provider do a yearly review of the medicines you take?

- To see if all of the drugs you are taking are still necessary
- To make sure you are taking all the medicines correctly
- To learn pointers about how to make taking your medicines easier
- All of the above

Question 631 [1.00 pt(s)]

If giving a child more than one medicine, what section of the Drug Facts label should you pay particular attention to?

- Directions
- Active Ingredients
- Other Information
- Inactive Ingredients

Question 632 [1.00 pt(s)]

OTC medicines should be stored:

- In a car
- In a dark closet
- Out of reach of children
- On the kitchen table

Question 633 [1.00 pt(s)]

If pregnant, the most important part of the OTC drug label is:

- Warnings
Question 634 [1.00 pt(s)]

A mother calls to tell that her seven-day-old baby is having convulsions. She says the baby
has shown signs of serious ear infection soon after birth. The physician prescribed
penicillin G. The baby began to have convulsions about an hour after receiving the last
injection of penicillin. What would you advise the mother to do?

- Discontinue penicillin
- Add valproic acid to the treatment
- Add carbamazepine to the treatment
- Add acetaminophen to the treatment

Question 635 [1.00 pt(s)]

A patient visits his physician; his chief complaint is hypertension, headache, fever, and
abdominal cramps. The physician prescribed him atenolol 50mg, ibuprofen 400mg, and
hyoscine. After two days the patient reports that his blood pressure is not well controlled.
What change in the patient prescription would you suggest?

- Change atenolol since it is a non-selective beta blocker
- Change atenolol because it produces negative inotropic effects
- Change hyoscine because it is a peripheral antimuscarinic agent
- Change hyoscine because it is a selective antimuscarinic agent

Question 636 [1.00 pt(s)]

A 35 year old, overweight female purchased a weight-reduction product containing
ephedrine. She took the product in accordance with directions on the label for one-month,
then stopped using it during a vacation week, and then started again upon her return to
work. Two days after restarting, she was awakened by anterior chest pain, which radiated
to her left shoulder and arm. She experienced numbness in the left arm, shortness of
breath, and sweating (diaphoresis).

At the emergency department, she was treated with morphine and nitroglycerin. Cardiac
catherization revealed 60% narrowing of the left anterior descending coronary vessel and
a 50 percent narrowing of the circumflex coronary artery. There was no evidence of
completely occluded coronary vessels. ECG tracings indicated T-wave changes indicative of
an acute myocardial infarction -- later confirmed by elevated cardiac enzymes. Recovery
was uneventful; the patient was discharged with instructions to avoid using the weight
loss product or similar weight loss products in the future.

Possible explanations why ephedrine might cause myocardial infarction:

- Ephedrine increases myocardial oxygen requirements
- Ephedrine promotes coronary vasospasm
- Ephedrine increases blood circulation
- Ephedrine decreases blood circulation

Question 637 [1.00 pt(s)]

A 54-year-old female presents to her family physician for routine follow-up. She is
clinically obese, with a height of 169 cm and a weight of 91 Kg, and also suffers from
hypertension, type II diabetes mellitus, sleep apnea, and knee osteoarthritis. She reports
multiple attempts to lose weight, only to regain the weight and more. She also reports
wide-ranging pain in multiple joints which is preventing her from exercising. She asks if
there is any medication she can take to help her to improve her weight problem.

What is a suitable anti-obesity drug for this case?

- Diethylproprion for long-term use
- Phendimetrazine for long-term use
- Orlistat for long-term use
- Exenatide for short-term use

Question 638 [1.00 pt(s)]
A nine-year-old girl was brought to the clinic with the complaints of frequent colds and throat infections since childhood. She gets these attacks once every 2-3 months and the attacks last about one week. The attacks begin with irritation in the throat and she develops pain in the throat. The pain radiates to the ears and she experiences difficulty in eating and drinking during these attacks. She occasionally develops fever with these complaints. She also develops frequent colds wherein she experiences nose block and severe bouts of sneezing. There was a strong history of frequent colds and allergies in the family (parents and grandfather and uncle). On examination, she was found to have enlarged and inflamed tonsils. Marked congestion of the throat was noted.

Her ENT doctor had strongly suggested trying antibiotic courses.

What is the suitable antibiotic for this case (type, dose and duration)?

- A combination of amoxycillin plus clavulanic acid (penicillinase inhibitor). One tablet 3x/day for at least 5 days.
- Amoxicillin one tablet 3x/day for at least 5 days.
- Clavulinic acid one tablet 3x/day for at least 5 days.
- Cefuroxime as the patient has a recurrent infection

**Question 639 [1.00 pt(s)]**

CK is a 23-year-old woman who presents to her physician with a positive result (15 mm induration) on her purified protein derivative (PPD) tuberculin skin test. She denies signs or symptoms such as cough, blood-tinged sputum, fever, or weight loss, and her chest x-ray is unremarkable. CK’s physician diagnoses her with latent tuberculosis (TB). CK states she has a very busy schedule and difficulty managing stress. She is concerned about her ability to be adherent to an extended duration treatment regimen. The physician asks you for your recommendation on an appropriate regimen to treat CK’s latent TB. CK has no other medical conditions and is not currently taking any prescription medications. Which latent TB treatment regimen would you recommend for CK?

- isoniazid daily for three months
- isoniazid daily for nine months
- isoniazid and rifampin taken once weekly for three months
- isoniazid and rifampin taken once weekly for nine months

**Question 640 [1.00 pt(s)]**

GB is a 42-year-old man who comes to the clinic for a scheduled visit. GB is overweight and admits to exercising very infrequently. He has a medical history of hypertension and hyperlipidemia for which he takes hydrochlorothiazide and rosuvastatin, respectively. Recent laboratory results show that GB has a fasting blood glucose of 172 mg/dL, an HbA1C of 7.6%, and a serum creatinine of 1.1 mg/dL. He does not complain of polyuria, polydipsia, or other common signs of diabetes. Following repeat laboratory results a few weeks later show similar glucose abnormalities, GB’s physician diagnoses him with type 2 diabetes and decides to initiate pharmacologic treatment. What is the most appropriate initial pharmacologic treatment for GB?

- Thiazolidinediones
- Biguanides
- Sulfonylureas
- Meglitinides

**Question 641 [1.00 pt(s)]**

_____ is used to study gastric emptying:

- Barium sulfate
- Aluminium sulfate
- Calcium sulfate
- Aluminium hydroxide

**Question 642 [1.00 pt(s)]**

Which of the following plants acts on tachycardia of menopausal women?

- Common sage
Camomile
Valerian
Hawthorn

Question 643 [1.00 pt(s)]

It is recommended to avoid the association of ginseng and CoQ10 with warfarin:

- A decreased anticoagulant effect of warfarin
- An increased anticoagulant effect of warfarin
- Oral cavity ulceration
- Oesophagus ulceration

Question 644 [1.00 pt(s)]

Digoxin is extracted from:

- Digitalis lanata flower
- Digitalis lanata leaf
- Digitalis purpurea leaf
- Digitalis purpurea roots

Question 645 [1.00 pt(s)]

All of the following are true for pilocarpine, EXCEPT:

- Increases sweating
- Produces vasoconstriction
- Can cause contraction of the intestinal tract
- Is efficient in treating open angle glaucoma

Question 646 [1.00 pt(s)]

Which of the following is NOT a possible route of entry for a toxicant?

- Ingestion
- Absorption
- Exposure
- Inhalation

Question 647 [1.00 pt(s)]

When DDT, a pesticide, enters the human body, it is:

- Water soluble and is easily excreted in urine
- Stored in the bones
- Not toxic, but is metabolised by enzymes and becomes a different compound which is toxic
- Fat soluble and can be stored in adipose tissue

Question 648 [1.00 pt(s)]

Who took the largest dose of aspirin?

- An adult woman who weighs 57 Kg and took 300 mg of aspirin
- A teenage boy who weighs 61 Kg and took 600 mg of aspirin
- A child who weighs 9 Kg and took 100 mg of aspirin
A baby who weighs 2.25 Kg and took 50 mg of aspirin

**Question 649** [1.00 pt(s)]

Hyperthermia in a poisoned patient is an indicator of all the following EXCEPT:

- Ecstasy
- Selective serotonin reuptake inhibitor
- Salicylates
- Chlorpromazine

**Question 650** [1.00 pt(s)]

All of the following are treatment options for toxic alcohol poisoning EXCEPT:

- Fomepizole
- Hydroxycobalamin
- Thiamine
- Folic acid

**Question 651** [1.00 pt(s)]

Opiates cause

- Blindness
- Myosis
- Mydriasis
- Deafness

**Question 652** [1.00 pt(s)]

Cranberry is mainly indicated for the prevention and treatment of:

- Constipation
- Bronchitis
- Hyperglycemia
- Urinary tract infections

**Question 653** [1.00 pt(s)]

Concerning plants with mucilage, which one of the following is the WRONG answer?

- Mucilages are fibres that swell by water absorption
- Are used as appetite suppressant
- Are used as laxatives
- Are contra-indicated in diabetes
<table>
<thead>
<tr>
<th></th>
<th><strong>English</strong></th>
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<tbody>
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C. Salicylates  
D. Chlorpromazine

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A. Fomepizole  
B. Hydroxycobalamin  
C. Thiamine  
D. Folic acid

6. Opiates cause:

A. Blindness  
B. Myosis  
C. Mydriasis  
D. Deafness
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   - A. Constipation
   - B. Bronchitis
   - C. Hyperglycemia
   - D. Urinary tract infections

8. Concerning plants with mucilage, which one of the following is the WRONG answer?

   - A. Mucilages are fibres that swell by water absorption
   - B. Are used as appetite suppressant
   - C. Are used as laxatives
   - D. Are contra-indicated in diabetes

9. Which of the following agents is least likely to cause hyperkalemia?

   - A. Spironolactone
   - B. Amiloride
   - C. Captopril
   - D. Ethacrynic acid
A 72-year-old woman with a history of type 2 diabetes has elevated glucose levels and an HbA1C of 8%. Her last creatinine level was 2.1 mg/dL (normal 0.6−1.2 mg/dL). She stopped taking low-dose glyburide six months ago due to hypoglycemia, and has not taken any medications for diabetes since then with concern for low blood glucose levels. Which of the following options is MOST appropriate to reach target glucose levels in this patient?

A. Metformin  
B. Glipizide  
C. Pioglitazone  
D. NPH insulin bid

You are seeing a 57-year-old obese woman with renal insufficiency (GFR: 50ml/min per 1.73m²) with a 13-year history of type 2 diabetes. She has been on insulin in the remote past but has had good control over the last year on a short-acting sulfonylurea. However, she had a recent hospitalization for severe hypoglycemia. She is discharged without any medications for diabetes and her fasting glucose is 110 mg/dL and her HbA1C is 7.6%. Which one of the following treatments should you recommend for her?

A. Restart the sulfonylurea  
B. Start linagliptin  
C. Start metformin  
D. Start sitagliptin
Concerning GLP-1 analogs and DPP-IV inhibitors, which of the following statements is the MOST ACCURATE?

A. Increase insulin secretion by pancreas and are metabolized primarily by the liver  
B. Decrease hepatic glucose production  
C. Delay absorption of complex carbohydrates in intestines  
D. Enhance insulin secretion and release (primarily postprandial) and reduce glucose production

A 35-year-old woman appears to have familial combined hyperlipidemia. Her serum concentrations of total cholesterol, LDL-cholesterol, and triglycerides are elevated. Her serum concentration of HDL-cholesterol is somewhat reduced. Which of the following drugs side effects would likely increase the patient’s triglyceride and VLDL-cholesterol concentrations when used as monotherapy?

A. Atorvastatin  
B. Cholestyramine  
C. Ezetimibe  
D. Niacin

Regarding evolocumab, which of the following statements is INCORRECT?

A. Evolocumab is a monoclonal antibody prescribed as a second line agent  
B. Evolocumab is the most potent reducer of LDL-Cholesterol levels  
C. Evolocumab is prescribed orally once per week  
D. Evolocumab prevents degradation of LDL receptors by inhibiting PCSK9
15. Which of the following drugs slow the conduction through the AV node and has its primary action directly on L-type calcium channels?

- A. Amiodarone
- B. Diltiazem
- C. Esmolol
- D. Flecainide

16. What is the mechanism of action of fluconazole?

- A. It inhibits fungal DNA synthesis
- B. It inhibits the formation of lanosterol from squalene
- C. It inhibits the formation of ergosterol from lanosterol
- D. It binds to ergosterol and prevents its incorporation into the fungal cell wall

17. A 37-year-old woman is being treated with the combination drug, imipenem and cilastatin. Cilastatin is added to imipenem because cilastatin:

- A. Inhibits the destruction of imipenem by a renal tubular dipeptidase
- B. Inhibits β-lactamase
- C. Increases the oral absorption of imipenem
- D. Decreases the incidence of nausea and vomiting caused by imipenem
18 A patient needs antibiotic treatment for native valve, culture-positive infective enterococcal endocarditis (Gram-positive cocci). His medical history includes a severe anaphylactic reaction to penicillin G during the last year. The best approach would be treatment with:

A. Amoxicillin-clavulanate  
B. Ceftriaxone  
C. Ticarcillin  
D. Linezolid

19 A 75-year-old man was admitted to the hospital for hip replacement. Which of the following antibiotics would be an appropriate prophylactic agent to be given before surgery?

A. Tetracycline  
B. Sulfamethoxazole  
C. Aztreonam  
D. Cefazolin
20 Resistance in many Gram-negative bacteria is the result of the production of extended spectrum beta-lactamases (ESBL). Which of the following classes of antibiotics is usually efficacious against ESBL?

A. Trimethoprim  
B. Aminoglycosides  
C. Glycopeptides  
D. Carbapenems

21 A 49-year-old woman recently diagnosed with an uncomplicated urinary tract infection started a treatment with an antibiotic that impairs cell wall synthesis by inhibiting enolpyruvate transferase. Which of the following drugs has this mechanism of action?

A. Vancomycin  
B. Aztreonam  
C. Fosfomycin  
D. Imipenem

22 What is the antibiotic of choice for pregnant women (at any stage of pregnancy)?

A. Nitrofurantoin  
B. Fluoroquinolones  
C. Fosfomycin  
D. Cotrimoxazol
**23** Quetiapine, a second-generation antipsychotic is used:

A. For the treatment of moderate to severe manic episodes associated with bipolar disorder  
B. For the treatment of major depressive episodes associated with bipolar disorder  
C. To prevent relapse in bipolar disorder in patients whose manic or depressive episode responded to treatment with quetiapine  
D. All of the above

**24** ASCO's (American Society of Clinical Oncology) new guidelines for the management of cisplatin-induced nausea/vomiting include:

A. Combination of 5-HT3 receptor antagonists + dexamethasone  
B. Combination of 5-HT3 receptor antagonists + NK-1 receptor antagonists + Dexamethasone + Olanzapine  
C. Combination of 5-HT3 receptor antagonists + metoclopramide  
D. Combination of Dexamethasone + Olanzapine

**25** Benzodiazepines can be used for the treatment of all the following conditions EXCEPT:

A. Epilepsy  
B. Sleep disorders  
C. Depression  
D. General anxiety disorder
26. Mrs. B. was admitted to the emergency 10 days after her last chemotherapy session with a hemoglobin level of 9.5 g/dL. What are the recommended treatments for her anemia knowing that she has no history of thromboembolic diseases:

- A. Red blood cells transfusions + erythropoetin 150 units / kg three times a week
- B. Erythropoetin alone 150 units / kg three times a week
- C. Red blood cells transfusions alone
- D. None of the above

27. A 36 year old woman presents with symptoms of generalized anxiety. Her physician prescribed her fluoxetine as a treatment. In your counseling, you would tell her that:

- A. It is preferable that she does not take it in the evening
- B. She might experience headache and nausea
- C. The antidepressant effects of fluoxetine may take 2-4 weeks to become effective
- D. All of the above

28. Among the following drugs used to treat inflammatory bowel diseases, which one is contraindicated in pregnant women?

- A. Sulfasalazine
- B. Budesonide
- C. Azathioprine
- D. Methotrexate
<table>
<thead>
<tr>
<th>29</th>
<th>What are the recommended first-line drugs/therapeutic classes used in the management of generalized anxiety disorder?</th>
</tr>
</thead>
</table>
|    | A. Tricyclic antidepressants  
|    | B. Benzodiazepines  
|    | C. Antidepressants selective serotonin reuptake inhibitors  
|    | D. Meprobamate |

<table>
<thead>
<tr>
<th>30</th>
<th>All of the following drugs cause an increase in prolactin levels EXCEPT:</th>
</tr>
</thead>
</table>
|    | A. Cimetidine  
|    | B. Risperidone  
|    | C. Cabergoline  
|    | D. Amitriptiline |

<table>
<thead>
<tr>
<th>31</th>
<th>All of the following anti-emetics can induce QT prolongation (ECG) EXCEPT:</th>
</tr>
</thead>
</table>
|    | A. Metoclopramide  
|    | B. Domperidone  
|    | C. Ondansetron  
<p>|    | D. Granisetron |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>All of the following drugs are hyperuricemic agents EXCEPT:</td>
</tr>
</tbody>
</table>
|          | A. Loop diuretics  
|          | B. Thiazide diuretics  
|          | C. Rabeprazole  
|          | D. Cyclosporin due to the tumor lysis syndrome |
| 33       | Which of the following antibiotics has the best bone penetration in case of osteomyelitis? |
|          | A. Imipenem-cilastatin  
|          | B. Ceftriaxone  
|          | C. Daptomycin  
|          | D. Gentamycin |
| 34       | All of these antibiotics might induce hemolytic anemia, EXCEPT: |
|          | A. Cephalosporins especially ceftriaxone  
|          | B. Ciprofloxacin  
|          | C. Vancomycin  
<p>|          | D. Piperacillin |</p>
<table>
<thead>
<tr>
<th>35</th>
<th>Which of the following antihypertensive agents should be avoided in elderly patients?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Amlodipine</td>
</tr>
<tr>
<td>B.</td>
<td>Atenolol</td>
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<tr>
<td>C.</td>
<td>Methyl-dopa</td>
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<td>D.</td>
<td>Hydrochlorothiazide</td>
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<table>
<thead>
<tr>
<th>36</th>
<th>Which of the following combinations represents optimal pharmacotherapy of the chronic heart failure?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Furosemide, clonidine, propranolol and hydrochlorothiazide</td>
</tr>
<tr>
<td>B.</td>
<td>Furosemide, lisinopril and carvedilol</td>
</tr>
<tr>
<td>C.</td>
<td>Cardizem, hydrochlorothiazide, digoxin and sotalol</td>
</tr>
<tr>
<td>D.</td>
<td>Dobutamine, amiodarone, furosemide and nitroglycerin</td>
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<tr>
<th>37</th>
<th>Among the following antiparkinson drugs, which one is not a direct dopaminergic agonist?</th>
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<tbody>
<tr>
<td>A.</td>
<td>Bromocriptine</td>
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<tr>
<td>B.</td>
<td>Lisuride</td>
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<tr>
<td>C.</td>
<td>Biperidene</td>
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<tr>
<td>D.</td>
<td>Apomorphine</td>
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38. Among these β-blockers, which one is not cardioselective?

- A. Atenolol
- B. Nebivolol
- C. Carvedilol
- D. Metoprolol

39. Which of the following drugs can cause hyperkalemia?

- A. Amphotericin B
- B. Cortisone
- C. Theophylline
- D. Valsartan

40. Among the following statements of glucocorticoids, indicate the one that is incorrect:

- A. They derive from the pregnane structure
- B. They inhibit the action of cyclooxygenase 2
- C. They can lead to Cushing’s syndrome
- D. They have a hypoglycemic effect
<p>| | | | | |</p>
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| 41 | Which of the following statements of aspirin is true?  
A. It is found in stomach essentially in ionized form  
B. In case of overdose, there is an increase in ATP production  
C. In case of overdose, it causes hyperthermia  
D. It is not adsorbed by activated charcoal |
| 42 | Which antibiotics are strictly contraindicated in pregnant women?  
A. Amoxicillin  
B. Cefpodoxime  
C. Ofloxacin  
D. Ticarcillin |
| 43 | Which of the following statements of insulin is FALSE?  
A. It can be used in Type II diabetes in combination with metformin or a sulphonylurea  
B. In cases of severe hypoglycemia in insulin-treated patients, glucagon is used  
C. Insulin injection can cause lipodystrophy at the injection site  
D. The detemir and insulin glargine are fast-acting insulin analogues used before each meal |
|   | Which of the following antidiabetic drugs act by decreasing the amount of glucose produced by the liver?  
|   |   A. Sulfonylureas  
|   |   B. Meglitinides  
|   |   C. Biguanides  
|   |   D. Alpha-glucosidase inhibitors  
| 45 | Lipodystrophy experienced by patients using insulin can be avoided by:  
|   |   A. The use of long-acting insulin  
|   |   B. The use of short-acting insulin  
|   |   C. The avoidance of protamine-containing insulins  
|   |   D. The rotation of injection sites  
| 46 | Beta-blocker that can be used by a hypertensive patient who also has chronic obstructive pulmonary disease (COPD) is:  
|   |   A. Propranolol  
|   |   B. Nadolol  
|   |   C. Acebutolol  
|   |   D. Timolol  

47. A patient presenting with an ischemic cerebrovascular accident is treated by the following thrombolytic agent:

A. Alteplase IV  
B. Dabigatran PO  
C. Acenocoumarol PO  
D. Heparine IV

48. Which anti-hypertensive drugs are recommended to treat a patient with microalbuminuria?

A. Thiazide diuretics  
B. Loop diuretics  
C. ACE inhibitors or ARBs  
D. Calcium channel blockers

49. All of the following molecules are low molecular weight heparins except:

A. Enoxaparin  
B. Tinzaparin  
C. Fondaparinux  
D. Nadroparine
### Question 50
All of the following drugs have antiplatelet properties except:

- A. Ticlopidine
- B. Dabigatran
- C. Clopidogrel
- D. Aspirin

### Question 51
All of the following drugs should be avoided during breastfeeding EXCEPT:

- A. Amiodarone
- B. Ciprofloxacin
- C. Cyclophosphamide
- D. Ranitidine

### Question 52
Gynecomastia and hirsutism are the major adverse effects during treatment with:

- A. Furosemide
- B. Thiazides
- C. Spironolactone
- D. Acetazolamide
Aripiprazole is a second-generation antipsychotic with the following properties:

- Partial agonist of the dopamine D2 receptor
- Antagonist of the 5-HT2a serotoninergic receptor
- Moderate affinity for α1-adrenergic and histamine H1 receptors
- All of the above

Palonosetron is an antiemetic:

- of second generation of 5-HT3 receptor antagonists
- that possesses a greater affinity for the 5-HT3 receptor than the first-generation molecules
- that has a longer half-life compared to first-generation of 5-HT3 receptor antagonists
- All of the above

Which of the following is the correct statement about dabigatran?

- It is a low molecular weight heparin
- Vitamin K or fresh frozen plasma can be used as an antidote
- It is only used in oral route
- Treatment monitoring is performed by monitoring activated partial thromboplastin time (aPTT)
Ceftaroline is a fifth generation cephalosporin, active against:

A. *Staphylococcus aureus* (including methicillin-resistant strains)
B. *Streptococcus pneumoniae* with reduced susceptibility to penicillin
C. *Escherichia coli* not producing extended spectrum beta-lactamases (ESBL)
D. All the answers above are correct

All of the following medications are hypoglycemic except:

A. Insulin
B. Beta-blockers
C. Gliclazide
D. Metformin

Anesthetic gases are mainly excreted via:

A. Urine
B. Bile
C. Exhaled air
D. Sweat
59. All these drugs are enzyme inhibitors except:

A. Ketoconazol  
B. Naringenin  
C. Erythromycin  
D. Carbamazepine

60. Which of following statements of migraine treatment is correct?

A. An immediate treatment is recommended only in severe attacks  
B. An immediate drug therapy is recommended in case of frequent attacks (more than 6 to 8 / months)  
C. No prophylactic treatment has demonstrated efficacy in the prevention of migraine attacks  
D. There is no criterion for predicting the efficacy of a drug

61. The treatment of choice in acute gout attack is:

A. Diet alone, low in purine-rich foods (eg giblets, fish)  
B. Diet low in purine-rich foods (eg giblets, fish) in combination with colchicine and allopurinol  
C. Diet low in purine-rich foods (eg giblets, fish) in combination with colchicine alone  
D. Diet low in purine-rich foods (eg giblets, fish) in combination with allopurinol alone
The antihistamine of choice in treating seasonal allergy symptoms in a pregnant woman is
- A. Cetirizine
- B. Meclizine
- C. Promethazine
- D. Dimenhydrinate

What is the mechanism of action of the oral anticoagulant apixaban?
- A. It directly inhibits thrombin
- B. It indirectly inhibits factor Xa by activating antithrombin
- C. It directly inhibits factor Xa
- D. It blocks the synthesis of active clotting factors

What is the mechanism of action of sotalol in preventing ventricular and atrial arrhythmias?
- A. It blocks Ca2+-channels in ventricular myocytes
- B. It blocks K+-channels and β adrenergic receptors in ventricular myocytes
- C. It blocks Na+-channels in ventricular myocytes
- D. It blocks K+-channels in ventricular myocytes
A 72-year-old patient with heart failure and atrial fibrillation is receiving digoxin. The mechanistic rationale for using digoxin to treat the patient’s arrhythmia is that

A. Digoxin inhibits Ca2+ channels in the AV node
B. Digoxin inhibits atrial depolarizations by its effects on Na+ channels
C. Digoxin increases vagal tone
D. Digoxin slows repolarization in cardiac myocytes