

Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R 1 point

Assertion A: Exotoxins diffuse freely through the bacterial cell wall into the medium in which the organisms are growing

Reason R: They are water soluble and can pass into the surrounding medium

In the light of the above statements, choose the correct answer from the options given below:

- ☐ Both A and R are true and R is the correct explanation of A
- ☐ Both A and R are true but R is NOT the correct explanation of A
- ☐ A is true but R is false
- ☐ A is false but R is true

What is the percentage of alcohol in a mixture obtained by mixing 5 L of 25%, 3 L of 40% and 2 L of 15% alcohol? 1 point

- ☐ 27.5% v/v
- ☐ 30.5% v/v
- ☐ 25.5% v/v
- ☐ 26.5% v/v

For disguising the astringent and metallic taste of iron salts in children's mixture, the following flavoring agent is used 1 point

- ☐ Orange syrup and compound orange syrup
- ☐ Lemon syrup
- ☐ Liquorice liquid extract
- ☐ Aromatic water



A tablet excipient, whose function is to ensure that tablet formulation and ejection can occur with low friction between the solid and the die wall, is called:

1 point

- ☐ Glidant
- ☐ Lubricant
- ☐ Anti-adhesive
- ☐ Binder

Clathrates crystallize in the form of

1 point

- ☐ channel type structure
- ☐ tetragonal type structure
- ☐ cubic type lattice
- ☐ cage like lattice

Which of the following ointment bases is an "absorption base"?

1 point

- ☐ Yellow ointment, USP
- ☐ Hydrophilic petrolatum USP
- ☐ Hydrophilic ointment USP
- ☐ PEG ointment NF



Which of the following drugs has an apparent volume of distribution approximately 6500 litres?

1 point

- ☐ Amoxicillin
- ☐ Ibuprofen
- ☐ Chloroquine
- ☐ Diazepam

Which of the following surfactants is an ANIONIC surfactant?

1 point

- ☐ Lecithin
- ☐ Sorbitan esters
- ☐ Benzalkonium chloride
- ☐ Soaps



1 point

Match the following concept in List I with parameters in List II

LIST II	LIST I
Concept	Parameters
A. Volume of Distribution	I. Measure volume of real physiological plasma
B. Evans Blue	II. Human serum albumin
C. 3.5-5%	III. Volume of blood
D. Metallothionin	IV. Ratio of body drug content to plasma concentration
	V. Protein present in kidney to bind metal

Choose the correct answer from the options given below:

- ☐ A-I, B-II, C-III, D-IV
- ☐ A-V, B-IV, C-III, D-II
- ☐ A-IV, B-I, C-II, D-V
- ☐ A-III, B-II, C-IV, D-V

Basic dyes are used in microbiological staining. Which of the following statement is wrong about mechanism of staining?

1 point

- ☐ The positive ions on the surface of bacteria form a colored complex with the dye
- ☐ Ionic exchange between the negative charge on the bacteria and positive charge of dye takes place
- ☐ Ionic exchange between the positive charge on the bacteria and negative charge of dye takes place
- ☐ The neutral charge on the surface of bacteria forms a colored complex with the basic dye



Which of the following terms is used to describe the "partial or complete separation of the top or body crowns of a tablet from the main body of the tablet"?

1 point

- ☐ Lamination
- ☐ Capping
- ☐ Picking
- ☐ Mottling

Which of the following formulations are "pharmaceutically equivalent" ?

1 point

Match List I with List II

Ingredient		Function		Tablet A	Tablet B	Tablet C	Tablet D
A.	Acetaminophen	I.	Drug	300 mg	---	300 mg	300 mg
B.	Aspirin	II.	Drug	---	300 mg	---	---
C.	Loctose	III.	Filler	100 mg	100 mg	---	100 mg
D.	Avicel	IV.	Filler	---	---	100 mg	---
	Starch		Disintegrant	50 mg	50 mg	---	50 mg
	Avicel		Disintegrant	---	---	50 mg	---
	Mag stearate		Lubricant	2 mg	2 mg	2 mg	2 mg
	Gelatin		Binder	10 mg	10 mg	10 mg	10 mg

Choose the correct answer from the options given below:

- ☐ A and B
- ☐ B and C
- ☐ A and C
- ☐ B and D



What is the approximate amount of Powder (in mg) that can be filled in empty gelatin capsules of size 00?

1 point

- ☐ 1040 mg
- ☐ 650 mg
- ☐ 325 mg
- ☐ 162 mg

The interfacial forces are related to the contact angle by

1 point

- ☐ Nernst Equation
- ☐ Stoke's Equation
- ☐ Young's Equation
- ☐ Laplace Equation

In the Langmuir Isotherm, following statements are true except one:

1 point

- ☐ The layer of the gas adsorbed on the solid adsorbent is one molecule thick
- ☐ Adsorbed layer is uniform all over adsorbent
- ☐ No desorption takes place when gas strikes solid surface
- ☐ No interaction between the adjacent adsorbed molecules takes place



In absence of instruction by the prescriber, unless otherwise directed, the dose given for the mixture preparation should be stated on the label as

1 point

- ☐ One five ml spoonful to be taken three times a day in water
- ☐ Two five ml spoonful to be taken three times a day in water
- ☐ Two five ml spoonful to be taken two times a day in water
- ☐ One five ml spoonful to be taken two times a day in water

Suspensions containing a high percentage (about 50% or greater) of small, deflocculated particles would show which of the following flow properties?

1 point

- ☐ Plastic flow
- ☐ Dilatant flow
- ☐ Newtonian flow
- ☐ Pseudoplastic flow

