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## 1. Multiple choice questions :

- (i) Preformulation study includes all the studies except :
- The amount of drug available
  - The physicochemical properties of the different known substances
  - Therapeutic category and anticipated dose of compound
  - Route of administration
- (ii) Class III drugs have :
- High solubility and low permeability
  - Low solubility and low permeability
  - Low solubility and high permeability
  - High solubility and high permeability
- (iii) In general the disintegration time of uncoated tablet is .....
- 5 sec
  - 15 min
  - 30 min
  - 5 min

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- (iv) When the substance is exist in more than one crystalline form then the phenomenon is called as :
- Polymorphism
  - Crystallinity
  - Pseudopolymorphism
  - None
- (v) Noyes-Whitney equation is related to .....
- Dissolution rate
  - Sedimentation rate
  - Solubility
  - Flow property
- (vi) Unequal distribution of color on tablet is called as .....
- Orange peel effect
  - Mottling
  - Blooming
  - Cracking
- (vii) Enteric coated tablets are designed to release the drug in .....

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- (a) Colon  
(b) Stomach  
(c) Intestine  
(d) Mouth
- (viii) Biphasic liquid preparation, having one liquid is dispersed as minute globules in the other is known as ..... :
- (a) Emulsion  
(b) Suspension  
(c) Syrup  
(d) Elixir
- (ix) ..... drugs cannot fill alone into hard gelatin capsules :
- (a) Hygroscopic  
(b) Water soluble  
(c) Liquids  
(d) Semisolid
- (x) ..... is the smallest size of the capsule :
- (a) 15  
(b) 0

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- (c) 1  
(d) 3
- (xi) Glycerin act as ..... in capsules :
- (a) Opacifier  
(b) Plasticizer  
(c) Coloring agent  
(d) Lubricant
- (xii) Pellets have size about .....  $\mu\text{m}$  :
- (a) 1500  $\mu\text{m}$   
(b) 400  $\mu\text{m}$   
(c) 100  $\mu\text{m}$   
(d) 2500  $\mu\text{m}$
- (xiii) Sulphur is used as a ..... :
- (a) Surface coating material of glass  
(b) Vulcanizing (curing) agent for rubber  
(c) In manufacturing of leaching proof plastic  
(d) None of the above
- (xiv) HEPA filters removes particles up to ..... size :
- (a) 0.1  $\mu\text{m}$

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- (b) 0.3  $\mu\text{m}$
- (c) 5  $\mu\text{m}$
- (d) 0.1 mm
- (xv) ..... is very common gram negative bacteria which are generally found in ophthalmic preparations :
- (a) *Pseudomonas aeruginosa*
- (b) *Bacillus subtilis*
- (c) Viruses
- (d) *Tachypleusgigas*
- (xvi) Titanium dioxide is used in lipstick as .....
- (a) Hardening agent
- (b) Opacifying agent
- (c) Humectants
- (d) Colouring agent
- (xvii) Cold creams are ..... emulsion :
- (a) W/O
- (b) O/W
- (c) O/W/O
- (d) W/O/W

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- (xviii) ..... type of valve is used to deliver a measured amount of dose :
- (a) Spray valves
- (b) Vapour tape valves
- (c) Foam valves
- (d) Metering valves
- (xix) The package which has direct contact with the formulation is called as :
- (a) Primary packaging
- (b) Secondary packaging
- (c) Tertiary packaging
- (d) None of these
- (xx) The transmission of gases, vapors or liquids from the surrounding environment into the plastic container is known as .....
- (a) Permeation
- (b) Leaching
- (c) Sorption
- (d) Blooming

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Part-'B' 2×10=20

**(Long Answer Type Questions)**

*Note : Attempt any two questions. Each question carries 10 marks.*

2. Define and classify tablets. Write a note on different excipients used for formulation of tablet with brief discussion on manufacturing processes.
3. Define parenteral products. Mention various adjuvants used for parenteral preparations and brief discussion on evaluation of parenteral products.
4. What do you understand by the term cosmetics? Elaborate the cosmetic preparation with detail account of cosmetic in healthcare systems.

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Part-'C' 7×5=35

**(Short Answer Type Questions)**

*Note : Attempt any seven questions. Each question carries 5 marks.*

5. Write difference between hard gelatin capsule and soft gelatin capsule.
6. Write a note on the formulation and preparation of emulsion.
7. Define lipstick. Write a note on formulation and preparation of lipstick.
8. Define aerosol. Mention the advantages and disadvantages of aerosol.
9. Mention the quality control tests of tablets.
10. Explain tamper resistance packaging.
11. Define glass containers. Explain composition of glass. State the types of packaging material used for pharmaceutical packaging.

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12. What are quality control test involved in manufacturing of hard gelatin capsule.
13. Brief discussion on various type of vehicles used in the formulation of parenteral preparations.