

# Question Paper

Exam Date & Time: 28-Dec-2023 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Industrial Pharmacy I [PCE-BP502T - S2]

Marks: 75

Duration: 180 mins.

### I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) Small volume of injection (2 to 5 mL) is preferably given by \_\_\_\_\_ route. (1)

- [Intravenous](#)
- [Intramuscular](#)
- [Subcutaneous](#)
- [Intradermal](#)

2) As per guidelines on schedule M, Water for injection (WFI) should be stored at \_\_\_ °C. (1)

- [90](#)
- [80](#)
- [70](#)
- [105](#)

3) One of the following areas serves as a transition point between one environment and another. (1)

- [Change room](#)
- [Core area](#)
- [Air locks](#)
- [Sterilization room](#)

4) Marketed parenteral products given by IV route are normally in the range of \_\_\_\_\_ pH (1)

- [5 to 7](#)
- [2 to 12](#)
- [4 to 8](#)
- [7 to 10](#)

5) Sterilization for sensitive, thermolabile or unstable products is carried out by \_\_\_\_\_ process. (1)

- [Filtration](#)
- [Gamma radiation](#)
- [Gaseous](#)
- [Autoclave](#)

6) \_\_\_\_\_ is an effect of micronization. (1)

- [Excellent flow](#)
- [Flow with aggregation](#)

- 7) [Moderate flow](#)  
[Poor flow](#)  
Log P, less than 3 is associated with \_\_\_\_\_ . (1)
- 8) [Poor transport](#)  
[Poor dissolution](#)  
[Mild absorption](#)  
[Negligible absorption](#)  
Classical example for Polymerisation \_\_\_\_\_ . (1)
- 9) [Diclofenac](#)  
[Adrenaline](#)  
[Cefotaxime](#)  
[Paracetamol](#)  
Solubility depends on \_\_\_\_\_ . (1)
- 10) [Osmotic Pressure](#)  
[Physical forms](#)  
[Temperature](#)  
[Percent concentration](#)  
In vanishing creams, Potassium stearate serves as: (1)
- 11) [Emulsifying agent](#)  
[Humectant](#)  
[Stabiliser](#)  
[Surfactant](#)  
In Shampoos, detergency and foam is provided by \_\_ (1)
- 12) [Lubricant](#)  
[Principal surfactant](#)  
[Pearlescent](#)  
[Secondary surfactant](#)  
Magnesium trisilicate in toothpastes is used as \_\_\_\_\_ (1)
- 13) [Abrasives](#)  
[Detergent](#)  
[Foaming agent](#)  
[Pearlescent](#)  
Enteric coated tablets are initially tested for disintegration in (1)
- 14) [simulated gastric fluid](#)  
[simulated intestinal fluid](#)  
[Purified water](#)  
[Phosphate buffer](#)  
Substances used as inert fillers to create desired bulk in tablet granulations are called (1)
- 15) [Binders](#)  
[Diluents](#)  
[Glidants](#)  
[Lubricants](#)  
Friability test is done for (1)

- [25 rotations](#)  
[50 rotations](#)  
[75 rotations](#)  
[100 rotations](#)
- 16) Bloom strength is tested using the instrument (1)
- [Rheometer](#)  
[Gelometer](#)  
[Bloom meter](#)  
[All of the above](#)
- 17) Disintegration test is not applicable to (1)
- [Film coated tablets](#)  
[Enteric coated tablets](#)  
[Sustained release tablets](#)  
[None of the above](#)
- 18) Which of the following can be used as a plasticizer in the preparation of capsules? (1)
- [Glycerine](#)  
[Propylene glycol](#)  
[Sorbitol](#)  
[All of the above](#)
- 19) The criteria to pass disintegration test for soft gelatin capsules is (1)
- [15 minutes](#)  
[30 minutes](#)  
[60 minutes](#)  
[None of the above](#)
- 20) The selection of a method for filling of liquid orals depends on (1)
- [The characteristics of the liquid](#)  
[The type of package](#)  
[Required production out put](#)  
[All of the above](#)

### II Long Answers

**Answer all the questions.**

- 1) Write a brief note on the formulation of Pharmaceutical aerosols. Discuss the ingredients used in lipsticks along with their function.(5+5) (10)
- 2) What is Aseptic processing? Give a flow chart for a liquid sterile product that is terminally sterilized. Write a note on contamination controls in sterile facility. (10)

### III Short Answers

**Answer all the questions.**

- 1) Explain the parts of a tablet compression machine along with the role of each part. (5)
- 2) Explain the friability test and disintegration test for evaluation of tablets along with criteria to pass the test. (5)
- 3) What are the steps in preparation of empty hard gelatin capsules? List the various methods available for filling of hard gelatin capsules (3+2) (5)
- 4) Explain the steps involved on the preparation of pellets by extrusion spheronisation method. (5)

- 5) Explain the parts of an aerosol valve system along with their function. (5)
- 6) What is a secondary packaging material? Add a note on any two Quality Control tests for cartons used for storage of Blister packs. (5)
- 7) Define preformulation. Add a note on Hydrolysis of drugs. Give an example. (5)

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