

Question Paper

Exam Date & Time: 25-Nov-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Industrial Pharmacy I [PCE-BP502T - S3]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) One of the following is ionized at all pH values. (1)

- [Strong bases](#)
- [Strong acids](#)
- [Weak bases](#)
- [Weak acids](#)

2) Crystal shapes are mainly of _____ types. (1)

- [Six](#)
- [Two](#)
- [Five](#)
- [Four](#)

3) Metoprolol is an example for _____. (1)

- [BCS Class III](#)
- [BCS Class II](#)
- [BCS Class IV](#)
- [BCS Class I](#)

4) _____ type of flow is characterized by dead spaces during flow in hopper. (1)

- [Core](#)
- [Mass](#)
- [Gravity](#)
- [Forced](#)

5) Among laminar flow types, vertical flow is referred to _____. (1)

- [Sterile cabinet](#)
- [Biological safety cabinet](#)
- [UV cabinets](#)
- [Laminar flow hood](#)

6) _____ indicator is commonly used to detect leak test. (1)

- [Gentian violet](#)
- [Methylene red](#)

- 7) [Methylene pink](#)
[Methylene blue](#)
One of the following is a disadvantage of eye drops. (1)
- 8) [Increased contact period](#)
[High penetration](#)
[Poor bioavailability](#)
[Poor transportation](#)
Surfactant toxicity is in the order of : (1)
- 9) [Cationic-nonionic-anionic](#)
[Nonionic-anionic-cationic](#)
[Anionic-cationic-nonionic](#)
[Anionic-nonionic-cationic](#)
The optimum volume to deliver eye drop via ocular route is, (1)
- 10) [6-10 \$\mu\$ l](#)
[15-20 \$\mu\$ l](#)
[5-10 \$\mu\$ l](#)
[12 - 15 \$\mu\$ l](#)
Creams are basically: (1)
- 11) [Suspensions](#)
[Emulsions](#)
[Ointments](#)
[Skin lotions](#)
Patient information leaflets are not tested for:_____ (1)
- 12) [Dimensions](#)
[Pin holes](#)
[GSM](#)
[Print quality](#)
_____ gives rich clarity and brilliance to glass. (1)
- 13) [Lead](#)
[Boric acid](#)
[Soda lime](#)
[Boric oxide](#)
Rat holing in the hopper is responsible for this tablet defect (1)
- 14) [Binding in the die](#)
[Capping](#)
[Weight variation](#)
[All of the above](#)
The recommended range for plasticizer in a tablet coating formulation is ---- the polymer weight (1)
- [1-5%](#)
[5-10%](#)
[10-15%](#)
[10-20%](#)

- 15) Which of the following is used as a glidant? (1)
- [Talc](#)
[Colloidal silica](#)
[Syloid](#)
[All of the above](#)
- 16) This type of filling for liquids is not suitable for high speed and automatic machines (1)
- [Vacuum filling](#)
[Pressure vacuum filling](#)
[Volumetric filling](#)
[Gravity filling](#)
- 17) Which of the following excipient can function as a lubricant? (1)
- [Polyethylene glycol](#)
[Polyvinyl alcohol](#)
[Polymethacrylate](#)
[Polyvinyl pyrrolidone](#)
- 18) In the manufacturing of empty hard gelatin capsules, the stainless steel pins are maintained at a temperature (1)
- [15°C](#)
[22°C](#)
[37°C](#)
[50°C](#)
- 19) In the preparation of soft gelatin capsules by rotary die process, the temperature of the rotating drums is (1)
- [10°C](#)
[14°C](#)
[22°C](#)
[30°C](#)
- 20) In filling of hard gelatin capsules, the piston tamp principle is used in (1)
- [Hand operated machine](#)
[Semi-automatic machine](#)
[Automatic machine](#)
[All of the above](#)

II Long Answers

Answer all the questions.

- 1) Explain the parts of a diosna mixer granulator along with their function. Describe the weight variation test and the friability test for tablets along with the criteria to pass the test. 3+4+3 (10)
- 2) Discuss the components added in the manufacture of empty hard gelatin capsules. Add a note on the manufacturing process of empty hard gelatin capsules. (10)

III Short Answers

Answer all the questions.

- 1) What is the importance of Angle of repose? Mention the standard values. Give the procedure to find out Angle of repose for a given sample. (5)

- 2) With the help of a formula, explain the procedure to manufacture cold creams. (5)
- 3) Enlist any five important functions of primary packaging material. (5)
- 4) Briefly explain the buffering agents used in parenteral preparations. Give two examples. (5)
- 5) Briefly discuss sterilization by filtration techniques. (5)
- 6) Classify the various propellants used in pharmaceutical aerosols with examples (5)
- 7) Discuss about the various types of hair dyes with examples. (5)

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