

Exam Date & Time: 03-Mar-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Industrial Pharmacy I [PCE-BP502T]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) One of the following is an example for pseudomorph.

1) Crystal	2) Crystal shape	3) Amorphous	4) Hydrates
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2) During formulation development, mass flow is related to _____.

1) Angle of repose	2) Particle size	3) Bulkiness	4) Flow of powders in hoppers
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3) During preformulation studies, Solubility is studied at _____ °C.

1) 25	2) 37.5	3) 4 and 37	4) 4
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4) API belonging to Ester category normally undergoes _____.

1) Oxidation	2) Hydrolysis	3) Polymerisation	4) Reduction
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"Difficult to reverse physiologic effect" is a drawback of:

1) Injections	2) Capsules	3) Tablets	4) Solutions
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6) Ideal pH range of Water for injection (WFI) is _____.

1) 5.5 to 7.5	2) 6 to 8	3) 6 to 7	4) 5 to 7
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(1)

7) _____ oil is used as vehicle in steriles.

1) Paraffin oil	2) Almond oil	3) Sesame oil	4) Coconut oil	(1)
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8) One of the following effects solubility - dissolution rates.

1) Processing	2) Polymorphism	3) Preservatives	4) pH and pK	(1)
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9) Standard buffer concentration is in _____.

1) 50 to 89 mmol range	2) 10 to 90 mmol range	3) 30 to 50 mmol range	4) 10 to 100 mmol range	(1)
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10) Borosilicate glass is _____.

1) Type III glass	2) Type II glass	3) Type IV glass	4) Type I glass	(1)
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11) A tablet defect related to poor flow

1) Capping	2) Sticking	3) Weight variation	4) Lamination	(1)
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12) Which of the following is NOT TRUE for wet granulation?

1) Improves flow	2) Less time	3) Requires large space	4) Unsuitable for moisture sensitive drugs	(1)
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13) (1) The weight of a tablet is 150 mg. According to IP, the weight variation limit for this tablet is: NMT 2 tablets should deviate from average weight by

1) $\pm 10\%$	2) $\pm 7.5\%$	3) $\pm 5\%$	4) No such limit
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14) Which of the following is a non enteric polymer?

1) Cellulose Acetate Phthalate	2) Hydroxy propyl methyl cellulose pthalate	3) Polyvinyl acetate pthalate	4) Hydroxypropylmethyl cellulose	(1)
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15) What should be the moisture content of a hard gelatin capsule

1) < 10%	2) 10-13%	3) 13-16%	4) 16-18%	(1)
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16) The shells of soft gelatin capsules may be made elastic by the addition of

1) Sorbitol	2) Povidone	3) Polyethylene glycol	4) Hydroxypropyl methyl cellulose
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(1)

17) Select the right sequence in manufacturing of Hard Gelatin Capsules

1) Dipping Drying Stripping Trimming joining Polishing	2) Dipping- - Drying Spinning Stripping Trimming joining Polishing	3) Dipping- - Drying Stripping- Spinning Trimming joining Polishing	4) Dipping Spinning- - Stripping- Drying Trimming joining Polishing
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(1)

18) Glycerin is used as _____ in Tooth pastes.

1) Foaming agent	2) Flavor	3) Humectant	4) Preservative
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(1)

19) In Shampoos, detergency and foam is provided by _____

1) Preservatives	2) Principal surfactant	3) Other additives	4) Secondary surfactant
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(1)

20) In which step of sugar coating rounding of edges takes place? (1)

1) Sealing	2) Syruping	3) Sub coating	4) Polishing
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II Long Answers

Answer all the questions.

21) Discuss 5 tableting problems and reasons for the same. Describe how the weight variation test for tablets is performed and condition to pass the test (10)

22) Define ophthalmic dosage forms. Discuss various factors affecting corneal absorption. List four criterions to choose preservatives in ophthalmic preparations with examples. (10)

III Short Answers

Answer all the questions.

23) Define Preformulation. Enlist any four important applications. (5)

24) Briefly discuss Tonicity requirements for parenteral products. Give two examples. (5)

- 25) Write a note on advantages and disadvantages of ophthalmic inserts. (5)
- 26) With the help of a formula, discuss the principle involved in the manufacturing of vanishing creams. (5)
- 27) What is packaging? Mention their characteristics. List any four types of closures. (5)
- 28) What are the components of SGC shell? Mention 2 advantages of pellets and the processes commonly used for pelletisation (5)
- 29) Describe the working of a semi-automatic capsule filling machine. In what way is it different from the fully automatic capsule filling machines? (5)

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