

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE – RAIGAD – 402 103
Winter Semester Examination – Dec. – 2019

Branch: B. Pharm.	Third Year B. Pharm	Semester: V
Subject: Industrial Pharmacy-I (BP502T)		Marks: 75
Date: 18/12/2019		Time: 3hrs

Instructions: i) All questions are compulsory
ii) Figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary.

Q. No.1 Multiple Choice Questions (MCQs) = 20 x 1 = 20

(Answer all the questions)

1. Preformulation stability study includes
a) Solid state stability b) Solution state stability c) pH stability d) All of the above
2. Which one of the following solvents is more suitable for determining the partition coefficient that is useful for predicting drug absorption through gastrointestinal tract membrane?
a) Butanol b) Heptane c) Liquid paraffin d) n- octanol
3. The deliquescence is a property in which a solid
a) Absorbs moisture and remains solid b) Absorbs moisture and turns to liquid form
c) Increases the number of water of crystallization d) Loses water of crystallization
4. In the tablet coating process inadequate spreading of the coating solution before drying causes
a) Orange peel effect b) Sticking effect c) Blistering effect d) Picking effect
5. According to BCS classification drugs belonging to Class III shows
a) Low solubility and low Permeability b) Low solubility and high Permeability
c) High solubility and low Permeability d) High solubility and high Permeability
6. Enteric coating is achieved by using
a) Hydroxy Propyl Methyl Cellulose b) Carboxy Methyl Cellulose
c) Cellulose Acetate Phthalate d) Povidone
7. Subcoating is given to the tablet
a) To increase bulk b) To avoid deterioration due to microbial attack
c) To prevent the solubility in acidic medium d) To avoid stickiness
8. The sweetening agent commonly used in chewable tablet is
a) Saccharin b) Mannitol c) Aspartame d) All of the above
9. The measure of cohesive strength of the cross linking that occurs between gelatin molecules and is proportional to the molecular weight of gelatin is called
a) Bloom strength b) Viscosity c) Surface tension d) Iron content
10. In capsules ROTOFIL is used for filling
a) Powders b) Pellets c) Liquids d) Corrosive liquids
11. In the formulation of suspensions for soft gelatin encapsulation base adsorption of the solid to be suspended is expressed as the number of
a) grams of liquid base required to produce a capsulatable mixture when mixed with 1 gm of solid
b) ml of liquid base required to produce a capsulatable mixture when mixed with 1 gm of solid
c) grams of solid base required to produce a capsulatable mixture when mixed

- with 1 gm of solid
- d) mg of liquid base required to produce a capsulatable mixture when mixed with 10 gm of solid
12. The tear secretion contains an antibacterial enzymes known as
a) Zymase b) Diastase c) Lysozyme d) Lipase
 13. The growth of large particles at the expense of smaller ones, as a result of a difference in the solubility of the particles of varying sizes, is termed as
a) Polymorphic transformation b) Crystal habit c) Ostwald ripening d) None of the above
 14. Durability of tablet to combined effects of shock and abrasion is evaluated by using
a) Hardness tester b) Disintegration test apparatus c) Friabilator d) Screw gauge
 15. The Wurster process can be used to
a) Coat tablets b) Determine the disintegration time
c) Tablet compression d) None of the above
 16. The shells of soft gelatin capsule may be made elastic or plastic by addition of
a) Sorbitol b) Povidone c) Polyethylene glycol d) Hydroxy Propyl Methyl Cellulose
 17. Green bones are used for the preparation of gelatin of the type
a) A b) B c) C d) Both A& B
 18. Which one of the following device is used to increase the efficiency of drug delivery via aerosols?
a) Tube spacers b) Metered valve c) Actuator d) Pressure valve
 19. Polymorphism can be detected by all of the following techniques except
a) XRPD b) DSC c) IR spectroscopy d) UV spectroscopy
 20. Capillary zone electrophoresis and foaming activity are utilized to determine
a) Solubility b) Particle size c) pKa d) None of the above

Q. No.2 Long Answers (Answer 2 out of 3) = 2 x 10 = 20

- A) Discuss in detail IPQC tests for tablets.
- B) Differentiate between hard and soft gelatin capsules. Explain the construction and working of rotary die process. Add a note on quality control tests for soft gelatin capsule as per IP.
- C) Explain in detail preformulation study for parenteral drug delivery.

Q. No.3 Short Answers (Answer 7 out of 9) = 7 x 5 = 35

- A) Define pellets. Write its application. Discuss extrusion and spheronization.
- B) Solubility and pKa.
- C) Write a note on Glass as a packaging material.
- D) Explain formulation and preparation of cold cream and vanishing cream.
- E) Explain preparation and evaluation of eye ointment.
- F) Write about various properties of gelatin. Explain steps involved in preparation of hard gelatin capsule shell.
- G) Explain Aerosol packaging system.
- H) Enlist quality control test parameters for parenteral preparations. Add a note on pyrogen test and LAL test.
- I) Differentiate between sugar coating and film coating. Explain steps involved in sugar coating.

----- END OF PAPER -----