PART-II: PHARMACEUTICS SPECALISATION 60M

SEC- A

Note: Answer any 20 *questions*. Each question carries ONE mark 20x1=20

1. Which one of the formulation will give higher bioavailability?
   a) Nano suspensions b) Immediate Release Tablets
   c) Immediate Release Capsules d) Solutions

2. Low soluble high permeable drug comes under
   a) BCS Class I b) BCS Class II c) BCS Class III d) BCS Class IV

3. Capping of tablets is due to
   a) Entrapment of air during compression b) Plastic deformation
   c) Faulty compression machine d) All of the above

4. Identify the thermal method based on the changes in energy input of the system
   a) DTA b) DSC c) TGA d) DRS

5. Listerine mouthwash is a
   a) Microemulsion b) Suspension c) Multiple emulsion d) Dispersion

6. Which one of the following is the commonlyused bulking agent in the formulation of freeze driedlow dose drug products?
   (a) Sodium chloride b) Mannitol (c) Starch (d) HPMC

7. Which one of the following device is used to increase the efficiency of drug delivery via aerosols?
   a) Tube spacers, b) Metered valves c) Actuator d) Pressure valve

8. Which of the following equation describes the rate of dissolution from tablet?
   a) Fick's law b) Henderson Hasselbalch equation
   c) Noyes Whitney equation d) Michelis Menton equation

9. Shellac is used in the coating of tablets for
   a) Polishing b) Seal coating c) Film former d) Sub-coating

10. Which of the following is used to increase elasticity of soft gel capsule's shell?
    a) Sorbitol b) Povidone c) PEG d) HPMC

11. The phenomenon of increasing the solubility of weak electrolytes and non polar molecules by the addition of a water miscible solvent in which the drug has good solubility is called as
    a) Complexation b) Co-solvency c) Solubilization d) Hydrotrophy

12. Which of the following is a new drug delivery process which is composed of phospholipids that spontaneously form multilamellar concentric vesicles with layers of aqueous media separating the lipid layer?
a) Prodrugs b) Liposomes c) Osmotic pumps d)Nanoparticles

13. 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) Partition coefficient

14. If the Carr's index of a powder is 10% thenthe type of powder flow is
a) Poor b) Excellent c)Very poor d) Good

15. Inadequate spreading of the coating solution during tablet coating before drying causes
a) Orange peel effect b) Sticking c) Blistering d) Picking

16. The ratio of void volume to the bulk volumeof the packing of the powder is called as
a) Porosity b) True density c) Granular density d) Bulk density

17. Which of the following technique is used toformulate depot formulations?
a) Solubilization b) Parentral suspension c) Microemulsions d) Encapsulation

18. The following incompatibility occurs in a mixture of menthol and thymol
a)Chemical incompatibility b) Therapeutic incompatibility
c) Physical incompatibility d) Tolerance incompatibility

19. Bloom strength is used to check the quality of
a) Lactose b) Ampoules c) Hardness of tablets d) Gelatin

20. Mixing of semisolids is carried out using
a) Double cone mixer b) Rotating cube mixer
c) Planetary mixer d) Fluidized bed mixer

21. In the Drugs & Cosmetics Act and rules, the Schedule relating to clinical trials of new drug is
a) Schedule M b) Schedule X c) Schedule J d) Schedule Y

22. A co-solvent used in the preparation of parenteral products is:
a) Benzyl alcohol b) Methyl alcohol c) Dimethyl acetamide d) Phenol

23. One of the following is used as a pH dependent controlled release excipient
    a) Ethyl cellulose b) Glycerylmonostearate
    c) Povidone d) Hydroxyproply methyl cellulose phthalate

24. A water insoluble resin that is used as coating material in microencapsulation process is
    a) Polyvinyl alcohol b) Silicone
    c) Hydroxy ethyl cellulose d) Polyvinylpyrrolidone

25. Insufficient spreading of the coating solution before drying in causes of tablet coating process causes
    a) Cracking b) Hazing
    c) Blistering effect d) Picking effect Orange peel effect

26. Crown thickness of tablet is measured by
    a) Micrometerb) Hydrometer c) Pychnometerd) None of above

27. Angle of repose is measured by
    a) Fixed funnel method b) Cup plate method
    c) Both of the above d) None of the above

28. Which one of these is a carcinogenic
    a) Mannitol b) Saccharin c) Sucrose d) All the above

29. Nature of propellant is determined by
    a) Karl Fisher Method b) Gas Chromatography
    c) UV method d) None of the above

30. Intradermal injection refer to the injection into the
    a) Muscle mass b) Subcutaneous tissue
    c) Spinal fluidd) Skin layer (superficial)

SEC- B

Note: Answer any *10 questions*. Each question carries TWO marks 10x2=20

1. Define compression and consolidation.
2. Give any four examples of superdisintegrants.
3. Define validation.
4. Write a note on Biosimilars.
5. List out types of Patents.
6. Define absorption and bioavailability.
7. BCS Classification.
8. Explain therapeutic drug monitoring.
9. Define Biowaivers with suitable example.
10. Advantages of controlled release dosage forms.

11. Note on Osmotic pressure controlled delivery system.
12. Classify permeability enhancers.
13. Note on Niosomes.
14. List out basic components of TDDS.
15. Classify polymer.

SEC- C

Note: Answer any *05 questions*. Each question carries FOUR marks **5x4=20**

1. Explain about preformulation stability studies of powder.
2. Explain effect of particle size on strength of tablets.
3. Write a note on chewable tablets.
4. Write a note on applications optimization techniques.
5. Pharmaceutical factors affecting drug absorption.
6. Approaches to improve dissolution of poorly soluble drug.
7. Write a concept of loading dose.
8. Explain combination of dissolution controlled drug delivery systems.
9. Evaluation of Transdermal patches.
10. Formulation aspects of liposome.