Industrial Pharmacy - I

B. Pharm First Internal Examination 2020-2021
Date: 14/07/2020
Semester: 5th
Subject: Industrial Pharmacy-I (BP502T)
Instruction:
1. All questions are compulsory.
2. Each question carry 1 mark.
* Required

1. Email address *

_____

2. 1. Which are the main objectives of Preformulation studies? * 1 point

Mark only one oval.

- (a) To determine its kinetics and stability
- (b) To establish its compatibility with common excipients
- (c) to ensure their quality
- (d) All of the above

3. 2. Which parameters are included in fundamental Preformulation Studies? * 1 point

Mark only one oval.

- (a) Ionization constant
- (b) pKa
- (c) partition coefficient
- (d) All the above

4. 3. Which is organolaptic characteristic for preformulation study? * 1 point

Mark only one oval.

- (a) Taste
- (b) Crystanillity
- (c) particle size
- (d) None

5. 4. How to determine flow characteristic of powder? * 1 point

Mark only one oval.

- (a) Angle of repose
- (b) Carr's index
- (c) Hausner ratio
- (d) All of the above

6. 5. Particle size can influence variety of important factors_____ . * 1 point

Mark only one oval.

- (a) Dissolution rate
- (b) Penetrability
- (c) Uniform distribution
- (d) All of above

7. 6. Which parameters are included in Derived Preformulation Studies? * 1 point

Mark only one oval.

- (a) Ionization constant
- (b) Particle size
- (c) partition coefficient
- (d) All the above

8. 7. Which statement is true about Preformulation? * 1 point

Mark only one oval.

- (a) As a phase of research and development process
- (b) To develop safe, stable and effective dosage form
- (c) The borderline between development of new drug substance and formulation development
- (d) All of the above

9. 8. Which of the following is the solid state property of drug substance? * 1 point

Mark only one oval.

- (a) Common ion effect
- (b) Crystallinity
- (c) Dissolution
- (d) None of the above

10. 9. When crystals exist in more than one internal structure are called _____. * 1 point

Mark only one oval.

- (a) Spherical
- (b) Amorphous
- (c) Polymorphs
- (d) None of the above

11. 10. _____ forms of substance have higher solubility and faster dissolution rate. * 1 point

Mark only one oval.

- (a) Amorphous
- (b) Crystal
- (c) Polymorph
- (d) Prisms

12. 11. Which are the shapes of drug particle substance? * 1 point

Mark only one oval.

- (a) Spherical
- (b) Cubic
- (c) Amorphous
- (d) (a) and (b) both

13. 12. Which method is used for determination of particle size? * 1 point

Mark only one oval.

- (a) Sedimentation
- (b) Differential Scanning Colorimetry
- (c) Solubility
- (d) Dissolution

14. 13. Surface morphology of drug substance is determined by _____ method. * 1 point

Mark only one oval.

- (a) SEM
- (b) DSC
- (c) HPLC
- (d) All of the above

15. 14. Powders flow property can be determined by _____ method. * 1 point

Mark only one oval.

- (a) Angle of repose
- (b) Carr's Index
- (c) Hausner ratio
- (d) All of the above

16. 15. If powder's Carr's index _____ and angle of repose _____ , then flow of powder is excellent. * 1 point

Mark only one oval.

- (a) High , Low
- (b) High, High
- (c) Low, Low
- (d) Low, High

17. 16. Compressibility of powder is depend on _____ . * 1 point

Mark only one oval.

- (a) Tapped density
- (b) Solubility
- (c) Partition coefficient
- (d) All of the above

18. 17. When powder have good flow property, then angle of repose is _____ . * 1 point

Mark only one oval.

- (a) > 25
- (b) 31 - 35
- (c) 41 – 45
- (d) > 56

19. 18. When powder have very very poor flow property, then Carr's index is _____ . * 1 point

Mark only one oval.

- (a) < 10
- (b) 11 – 15
- (c) 21 – 25
- (d) > 40

20. 19. When substance absorb moisture, until it may get dissolve, is called _____ . * 1 point

Mark only one oval.

- (a) Hygroscopic substance
- (b) Deliquescent substance
- (c) Efflorescent substance
- (d) None of the above

21. 20. _____ is used as flow activator which reduces adhesion and cohesion of the powder. * 1 point

Mark only one oval.

- (a) Talc
- (b) Starch
- (c) Magnesium stearate
- (d) All of the above

22. 21. Which methods are used to determine solubility of drug substance? * 1 point

Mark only one oval.

- (a) Shake flask method
- (b) Potentiometric method
- (c) Turbidimetric method
- (d) All of the above

23. 22. If the drug has an ionisable group, then the equilibrium solubility of the unionized form is called the _____ . * 1 point

Mark only one oval.

- (a) Bioavailability
- (b) Intrinsic solubility
- (c) Dissolution
- (d) Partition coefficient

24. 23. How to decreasing the solubility of drugs? * 1 point

Mark only one oval.

- (a) By particle size reduction
- (b) By adding co-solvent
- (c) By coating with polymers
- (d) All of the above

25. 24. Ionization constant of drug substance calculated by using _____ . * 1 point

Mark only one oval.

- (a) Noyes – Whitney equation
- (b) Henderson – Hassel batch equation
- (c) Both of the above
- (d) None of the above

26. 25. _____ is defined as the ratio of the concentration of the unionized compound, at equilibrium, between organic and aqueous phases. * 1 point

Mark only one oval.

- (a) Intrinsic solubility
- (b) Ionization constant
- (c) Partition coefficient
- (d) Dissolution rate

27. 26. Solid drugs need to first _____ and then they can be _____ . * 1 point

Mark only one oval.

- (a) Absorb, Dissolve
- (b) Absorb, Soluble
- (c) Dissolve, Absorb
- (d) None of the above

28. 27. Dissolution rate can be calculated by _____ . * 1 point

Mark only one oval.

- (a) Noyes – Whitney equation
- (b) Henderson – Hassel batch equation
- (c) Both of the above
- (d) None of the above

29. 28. Which method is used to determine dissolution of drug? * 1 point

Mark only one oval.

- (a) Shake flask method
- (b) Potentiometric method
- (c) Rotating disk method
- (d) Turbidimetric method

30. 29. Which dissolution apparatus is USP type I apparatus? * 1 point

Mark only one oval.

- (a) Rotating cylinder apparatus
- (b) Paddle apparatus
- (c) Rotating disk apparatus
- (d) Basket apparatus

31. 30. _____ substance has a tendency to loose water and become anhydrous. * 1 point

Mark only one oval.

- (a) Hygroscopic substance
- (b) Deliquescent substance
- (c) Efflorescent substance
- (d) None of the above

32. 31. _____ is defined as the extent to which a drug product maintains same quality throughout its shelf life which possesses at the time of manufacturing. * 1 point

Mark only one oval.

- (a) Solubility
- (b) Dissolution
- (c) Stability
- (d) All of the above

33. 32. Which type of reaction occurs in solid state degradation of drugs? * 1 point

Mark only one oval.

- (a) Hydrolysis
- (b) Photolysis
- (c) Oxidation
- (d) All of the above

34. 33. _____ is a chemical reaction in which water is used to breakdown the bonds of a substance. * 1 point

Mark only one oval.

- (a) Oxidation
- (b) Reduction
- (c) Hydrolysis
- (d) Photolysis

35. 34. How to minimize oxidation reaction of the formulation? * 1 point

Mark only one oval.

- (a) By adding anti-oxidants
- (b) By avoiding contact with heavy metal ion
- (c) By adding inert gas
- (d) All of the above

36. 35. _____ is type chemical degradation reaction occurs in presence of light. * 1 point

Mark only one oval.

- (a) Oxidation
- (b) Photolysis
- (c) Reduction
- (d) Hydrolysis

37. 36. How to minimize photolysis of drug substance into the formulation? * 1 point

Mark only one oval.

- (a) By adding inert gas
- (b) By adding preservative
- (c) By packing into ambered glass bottle
- (d) All of the above

38. 37. In which chemical degradation reaction substances change its optical activity? * 1 point

Mark only one oval.

- (a) Racemisation
- (b) Photolysis
- (c) Oxidation
- (d) Reduction

39. 38. Intermediate storage condition for general drug substance is _____ as per ICH guideline. * 1 point

Mark only one oval.

- (a) 25 + 2°C and 60 + 5% RH
- (b) 30 + 2°C and 65 + 5% RH
- (c) 35 + 2°C and 65 + 5% RH
- (d) 40 + 2°C and 75 + 5% RH

40. 39. Accelerated storage condition for refrigerated drug substance is _____ as per ICH guideline. * 1 point

Mark only one oval.

- (a) 25 + 2°C and 60 + 5% RH
- (b) 30 + 2°C and 65 + 5% RH
- (c) 35 + 2°C and 65 + 5% RH
- (d) 40 + 2°C and 75 + 5% RH

41. 40. Drug--excipients compatibility testing detected by _____ method. * 1 point

Mark only one oval.

- (a) Scanning Electron Microscopy
- (b) Hot stage Microscopy
- (c) Differential Scanning Colorimetric
- (d) UV Spectroscopy

42. 41. Drug substances are classified on the basis of _____in Biopharmaceutical classification system. * 1 point

Mark only one oval.

- (a) Solubility
- (b) Permeability
- (c) Efficacy
- (d) (a) and (b) both

43. 42. _____ is defined as the ratio of drug absorbed through the GI tract following oral administration. * 1 point

Mark only one oval.

- (a) Drug solubility
- (b) Intestinal Permeability
- (c) Drug dissolution
- (d) Drug efficacy

44. 43. _____ is the example of BCS class 1 drug. * 1 point

Mark only one oval.

- (a) Propranolol
- (b) Insulin
- (c) Nifedipine
- (d) Taxol

45. 44. Which statement is false for BCS class 3 drug substances? * 1 point

Mark only one oval.

- (a) Drug is dissolved rapidly
- (b) Drug is absorbed rapidly
- (c) Drug solubility is high
- (d) Drug permeability is limited

46. 45. Methotrexate is the example of which BCS class? * 1 point

Mark only one oval.

- (a) Class 1
- (b) Class 2
- (c) Class 3
- (d) Class 4

47. 46. _____ is the example of Solid dosage forms. * 1 point

Mark only one oval.

- (a) Tablets
- (b) Powders
- (c) Capsules
- (d) All of the above

48. 47. Which statement describe disadvantage of tablet dosage form? * 1 point

Mark only one oval.

- (a) For the greatest dose precision
- (b) For modified release formulation design
- (c) Difficult to swallow for unconscious patient
- (d) Suitable for large scale production

49. 48. On the basis of drug release profile tablets can be classified as _____ . * 1 point

Mark only one oval.

- (a) Compressed tablet
- (b) Molded tablet
- (c) Dispersible tablet
- (d) Modified release tablet

50. 49. Which tablets are not used in oral cavity? * 1 point

Mark only one oval.

- (a) Sublingual tablet
- (b) Lozenges
- (c) Implantable tablet
- (d) Dental cones

51. 50. Which of the following tablets are used to ingest by orally? * 1 point

Mark only one oval.

- (a) Implantable tablets
- (b) Compressed tablets
- (c) Buccal tablets
- (d) All of the above

52. 51. Which type of tablets used to prepare solution? * 1 point

Mark only one oval.

- (a) Troches
- (b) Implantable tablets
- (c) Effervescent tablets
- (d) Sugar coated tablets

53. 52. Which types of tablets are used to prepare injected solution? * 1 point

Mark only one oval.

- (a) Effervescent tablets
- (b) Hypodermic tablets
- (c) Dispensing tablets
- (d) Tablet triturates

54. 53. _____ is widely used in chewable tablets as a diluents. * 1 point

Mark only one oval.

- (a) Calcium diphosphate
- (b) Lactose
- (c) Mannitol
- (d) None of the above

55. 54. If we want to produce staged drug release (like immediate and sustained) into one tablet formulation, then formulate _____ type of tablet. * 1 point

Mark only one oval.

- (a) Sugar coated tablets
- (b) Film coated tablets
- (c) Layered tablets
- (d) Buccal tablets

56. 55. In enteric coated tablets _____ polymers are used. * 1 point

Mark only one oval.

- (a) Cellulose Acetate Phthalate
- (b) Methacrylic acid copolymers
- (c) Hydroxy Propyl Methyl Cellulose
- (d) All of the above

57. 56. _____ tablets used in oral cavity to achieve rapid absorption into systemic circulation. * 1 point

Mark only one oval.

- (a) Film coated tablet
- (b) Chewable tablets
- (c) Buccal tablets
- (d) Effervescent tablets

58. 57. _____ are long acting sterile tablets to provide continuous release of drugs, by inserting subcutaneously. * 1 point

Mark only one oval.

- (a) Extended release tablets
- (b) Vaginal tablets
- (c) Implantable tablets
- (d) Film coated tablets

59. 58. Pregelatinized starch is widely used in tablets as _____ additives. * 1 point

Mark only one oval.

- (a) Binders
- (b) Diluents
- (c) Disintegrants
- (d) Glidants

60. 59. _____ is an additive that causes the tablets to break into small pieces when comes into contact with water. * 1 point

Mark only one oval.

- (a) Diluents
- (b) Binders
- (c) Glidants
- (d) Disintegrants

61. 60. Celutab is used as _____ and Explotab is used as _____ in tablet preparation. * 1 point

Mark only one oval.

- (a) Diluent, Disintegrant
- (b) Glidant, Disintegrant
- (c) Disintegrant, Disintegrant
- (d) Glidant, Binder

62. 61. _____ is an example of super disintegrating agents. * 1 point

Mark only one oval.

- (a) PVP
- (b) Crosspovidone
- (c) CAP
- (d) Cellulose

63. 62. _____ excipient undergo Millard reaction with amine containing drugs. * 1 point

Mark only one oval.

- (a) Starch
- (b) Mannitol
- (c) Lactose
- (d) Calcium Phosphate

64. 63. Sta-Rx-1500 may be used as a diluents, binder and disintegrating agent because it is: * 1 point

Mark only one oval.

- (a) Directly compressible, free flowing starch
- (b) Non compressible starch
- (c) A simple starch paste
- (d) Less compressible starch paste

65. 64. Slugging process is employed in _____ method of tablet manufacturing. * 1 point

Mark only one oval.

- (a) Wet granulation
- (b) Dry granulation
- (c) Direct compression
- (d) All of the above

66. 65. In dry granulation method granules are prepared by _____ . * 1 point

Mark only one oval.

- (a) Fluidized bed granulator
- (b) Rapid mixer granulator
- (c) Roller compactor
- (d) All of the above

67. 66. Which of the following is advanced dry granulation method for tablet preparation? * 1 point

Mark only one oval.

- (a) Moisture Activated dry granulation method
- (b) Pneumatic dry granulation method
- (c) Freeze granulation method
- (d) All of the above

68. 67. In multi station rotary tablet press, _____ guides the movement of both the upper and lower punches. * 1 point

Mark only one oval.

- (a) Upper and lower turrets respectively
- (b) Upper and lower cam-tracks respectively
- (c) All of the above
- (d) None of the above

69. 68. When compression force increases, _____ deformation occurs in which upon removal of the force , the powder mass reverts back to its original form. * 1 point

Mark only one oval.

- (a) Plastic deformation
- (b) Elastic deformation
- (c) Brittle fracture
- (d) All of the above

70. 69. Splitting of top portion of a tablet is referred to _____ . * 1 point

Mark only one oval.

- (a) Capping
- (b) Mottling
- (c) Lamination
- (d) Picking

71. 70. _____ defect occurs, when punch tips have embossing letters and granular material improperly dried. * 1 point

Mark only one oval.

- (a) Mottling
- (b) Capping
- (c) Sticking
- (d) Picking