

## National Institute of Pharmaceutical Education and Research Joint Entrance – 2017

**PLEASE NOTE:** The questions contained in the given question paper are completely memory-based. These Questions may or may not match the actual question paper.

1. Steven Johnson Syndrome is caused by
  - a) Fluroquinolones
  - b) Sulphonamide
  - c) Penicillin
  - d) Aminoglycoside
2. Which one of following is permanent antifreeze
  - a) Ethylene glycol
  - b) Propylene glycol
  - c) Glycerol
  - d) None of above
3. Which type of flow shown by flocculated suspension
  - a) Dilatant flow
  - b) Pseudoplastic flow
  - c) Plastic flow
  - d) Newtonian flow
4. Type of viscometer with stationary cup and rotating bob
  - a) Capillary viscometer

- b) Rotational viscometer
- c) Falling sphere viscometer
- d) All of above

5. Order of reaction of controlled release drug delivery system

- a) Zero order
- b) First order
- c) Both a & b
- d) Second order

6. Which of the following is/are Isotonic solution?

- a) 0.9% NaCl
- b) 5% Dextrose
- c) 1.72 % Boric acid
- d) All of above

7. Keesom force are

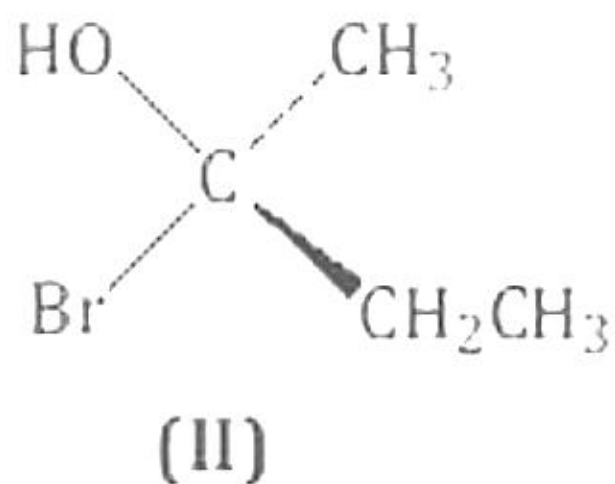
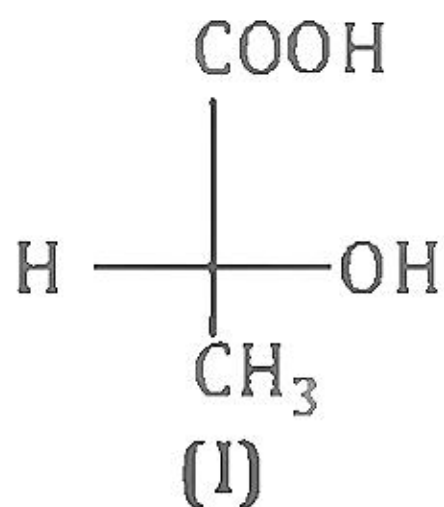
- a) Permanent dipole - permanent dipole
- b) Permanent dipole- induced dipole
- c) Induced dipole - induced dipole
- d) All of above

8. Critical temperature of CO<sub>2</sub>

- a) 20.10°C
- b) 25.01°C
- c) 31.10°C

d) 40°C

9. The correct configuration assigned for compounds (I) and (II) respectively are



- a) R, R
- b) S, S
- c) R, S
- d) S, R

10. Tweens are

- a) Cationic
- b) Anionic
- c) Nonionic
- d) Amphotenic

11. Avicel is

- a) Dextrose
- b) Microcrystalline cellulose
- c) Starch
- d) Sodium carboxy methyl cellulose

12. Schedule for drug to be taken under medical supervision

- a) Schedule H
- b) Schedule J
- c) Schedule K
- d) Schedule G

13. A compound which contains both..... And..... is called amino acid. The amino acids in polypeptide chain are joined by.....bond

- a) Amino, carboxylic group, ester
- b) Amino, carboxylic group, peptide
- c) Amino, carboxylic group, glycosidic
- d) Hydroxyl, carboxylic group, peptide

14. Which of the following species is an electrophile

- a)  $\text{RNH}_2$
- b)  $\text{SO}_3$
- c)  $\text{NO}_3$
- d)  $\text{ROH}$

15. Which of following is primary metabolite

- a) Alkaloids
- b) Glycoside
- c) Proteins
- d) Tannins

16. Chalcone is
- Benzalacetophenone
  - Aromatic ketone
  - Phenyl styryl ketone
  - All of above
17. Reaction with acid azides and isocyanate intermediate
- Backmann rearrangement
  - Lossen rearrangement
  - Hofmman Rearrangement
  - Curtius rearrangement
18. Drug that increase insulin secretion from pancreas
- Glibenclamide
  - Metformin
  - Rosiglitazone
  - Acarbose
19. Kernicterus mostly affects which organ
- Lungs
  - Heart
  - Brain
  - Stomach
20. Amphotericin B causes toxicity of which organ
- Brain
  - Liver
  - Kidney
  - Lungs

21. Action of carbidopa on levodopa

- a) Decrease the effect of Levodopa
- b) Prevent the breakdown of Levodopa outside the brain
- c) Prevent the breakdown of Levodopa inside the brain
- d) All of the above

22. Central element in the structure of chlorophyll

- a) Iron
- b) Chlorine
- c) Sulphur
- d) Magnesium

23. Action of probenecid in gout

- a) Promotes the uric acid excretion
- b) Increase Uric acid level
- c) Decrease the uric acid excretion
- d) All of the above

24. Salbutamol is classified in

- a)  $\alpha_2$  agonist
- b)  $\beta_2$  agonist
- c)  $\alpha_1$  agonist
- d)  $\beta_1$  agonist

25. Myalgia is side effects of drugs except

- a) Diuretics
- b) Fluroquinolone
- c) Statin
- d) Insulin

26. Side effect of Atropine

- a) Dry mouth
- b) Tachycardia
- c) Ataxia
- d) All of above

27) Side effect of Tricyclic antidepressants

- a) Dryness of mouth
- b) Blurring of vision
- c) Sedation
- d) All of above

28. Partition coefficient is determined using

- a) Benzene
- b) Octanol-water
- c) Methanol
- d) n-hexane

29. Humectant are following

- a) Glycerol
- b) Sorbitol
- c) Propylene glycol
- d) All of above

30. Half wave potential comes under which method

- a) Conductometry
- b) Potentionmetry
- c) Ampreometry
- d) Polarography

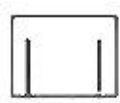
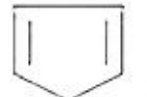
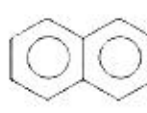
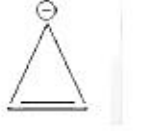
31. Mutarotation is
- a) Change in the optical rotation of a solution
  - b) Reducing sugar show mutarotation
  - c) Both a & b
  - d) None of above
32. Zeta potential used in
- a) Electrophoresis
  - b) Electro-osmosis
  - c) Sedimentation Potential
  - d) All of above
33. Phase-3 clinical trials under volunteers are
- a) 20-80
  - b) 100-300
  - c) 1000-3000
  - d) More than 1000
34. Phase-2 clinical trials used for
- a) PK & PD
  - b) Efficacy, short term safety
  - c) Safety and dosage
  - d) Adverse effect
35. Ornithine is the precursor of
- a) Urea cycle
  - b) TCA cycle
  - c) Glycolysis
  - d) All of above



36. In haemoglobin iron is bound to

- a) Histidine
- b) Leucine
- c) Isoleucine
- d) Valine

37. Among the following the aromatic compound is

- a) 
- b) 
- c) 
- d) 

38. Ayurveda preparation prepared by fermentation

- a) Aveleha
- b) Bhasma
- c) Ashara & Arista
- d) All of above

39. Fluconazole have which ring

- a) Imidazole
- b) Triazole
- c) Indole
- d) Pyrole

40. Pelligrini pan are

- a) Available in the range of 10-100 kg batch
- b) Suitable only for sugar coating process

- c) Contain baffled pan and diffuser that distributes the drying air uniformly on surface of table
- d) All of above

41. Who was involved in discovery of oxygen

- a) Robert Koch
- b) Joseph Priestlyey
- c) Watson & Crick
- d) J.Thomson

42. Who was involved in discovery of inert gas

- a) Rutherford
- b) J. Thomson
- c) Sir William Ramsay
- d) Joseph Priestley

43. Binomial nomenclature has NOT yet been adopted for

- a) Bacteria
- b) Fungi
- c) Viruses
- d) Protozoa

44. A characteristic property of stem cell is

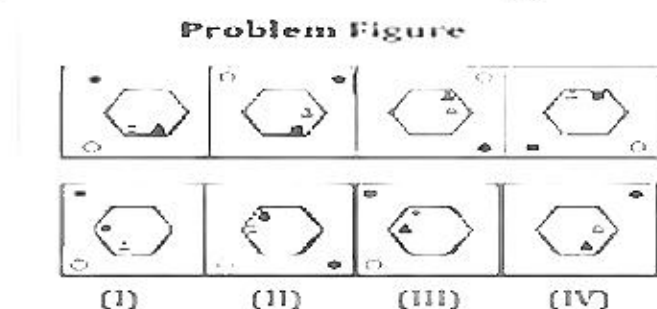
- a) Metastasis
- b) Terminal differentiation
- c) Self-renewal

d) Senescence

45. As per Arrhenious theory, pseudo base is a substance that.....concentration of the solution

- a) Decreases  $H^+$  ion
- b) Decreases  $OH$  ion
- c) Increases  $OH$  ion
- d) Increases  $H_3O^+$  ion

46. In the questions given below which one from the four answer figures should come at the right of the problem figures to complete the series logically



- a) I
- b) II
- c) III
- d) IV

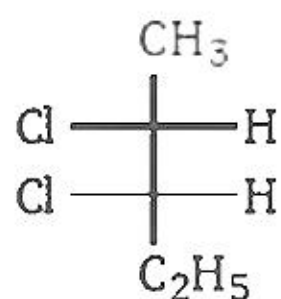
47. Which phytohormone induces seed dormancy

- a) Gibbrelin
- b) Absciscic acid
- c) Ethylene
- d) Auxin

48. Brunners glands are found in

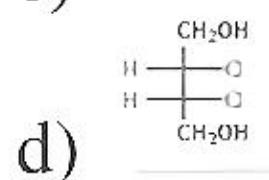
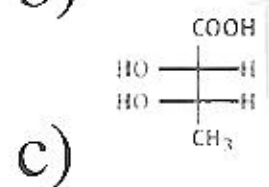
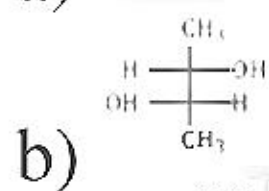
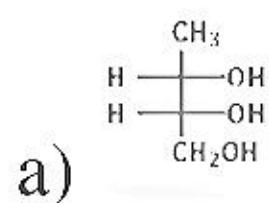
- a) Pancreas
- b) Stomach
- c) Liver
- d) Small intestine

49. The absolute configuration of the compound is



- a) 2S, 3R
- b) 2S, 3S
- c) 2R, 3S
- d) 2R,3R

50. Which one of the following is a meso-compound



51. Span 80 is

- a) Sorbital monostearate
- b) Sorbitol monooleate
- c) Polyoxyethylene monooleate
- d) Sorbitol monopalmitate

52. Cotrimoxazole is a combination of

- a) Clotrimazole and ketoconazole
- b) Trimethoprim and Pyrimethamine
- c) Clotrimazole and Sulphadiazine
- d) Trimethoprim and Sulphamethoxazole

53. Chemical test for terpenoid and steroids

- a) Salkowaski test
- b) Mayer's test
- c) Gold-beater's skin test
- d) Shinoda test

54. The strongest acid amongst the following compounds is

- a)  $\text{CH}_3\text{CH}_2\text{CH}(\text{Cl})\text{CO}_2\text{H}$
- b)  $\text{ClCH}_2\text{CH}_2\text{CH}_2\text{COOH}$
- c)  $\text{CH}_3\text{COOH}$
- d)  $\text{HCOOH}$

55. Phocomelia caused by

- a) Tetracycline
- b) Thalidomide
- c) Warfarine
- d) Aspirin

56. The Williamson synthesis involves

- a) A nucleophilic addition
- b) An electrophilic substitution
- c)  $SN^2$  displacement
- d)  $SN^1$  displacement

57. The preparation of ethers from alcohols by using sulphuric acid is called

- a) Williamson's ether Synthesis
- b) Williamson's continuous etherification process
- c) Ziesel's method
- d) Zerewitinoff method

58. The hydrolysis of alkyl halides by aqueous NaOH

- a) Ether
- b) Ethyl alcohol
- c) Acetaldehyde
- d) Acetic acid

59. Which of the following are the properties of pharmacocons belonging in Class III of BCS

- a) Good solubility & poor permeability
- b) Poor solubility & good permeability
- c) Good solubility & good permeability
- d) Poor solubility & poor permeability

60. Camptothecin inhibits

- a) DNA ligase
- b) Topoisomerase I
- c) Topoisomerase II
- d) Microtubule assembly formation

61. Bacteria can acquire antibiotic resistance by

- a) Conjugation and transformation
- b) Mutation
- c) Insertion of transposons
- d) All of the above

62. Which of the following anti-infective compound has disulfiram like action

- a) Metronidazole
- b) Tindazole
- c) Ornidazole
- d) Emetine

63. Which of the following can cause visual damage

- a) Linezolid
- b) Chloroquine
- c) Tetracycline
- d) Chloramphenicol

64. Chalcone is prepared by

- a) Claisen condensation
- b) Knoevenagel condensation
- c) Dieckman condensation
- d) Scotten Bauman reaction

65. Mipomersen, approved by USFDA, for homozygous familial hypercholesterolemia treatment is

- a) Organic molecule
- b) Biosimilar
- c) Apolipoprotein molecule
- d) Antisense oligonucleotide

66. Which sugar does not cause mutarotation

- a) Sucrose
- b) Lactose
- c) Fructose
- d) Maltose



67. Measles, Mumps, Rubella-MMR combined vaccine represents

- a) Inactivated/killed
- b) Live, attenuated
- c) Subunit
- d) Toxoid (inactivated toxin)

68. Abzyme is

- a) Zymogens
- b) Inactive proteinases
- c) Antibody with catalytic activity
- d) RNA with catalytic activity

69. The Declaration of Helsinki is a document of

- a) American Medical Association
- b) Helsinki Health Institution
- c) World Health Organization
- d) World Medical Association

70. Indian medicine Pharmaceutical Corporation Limited (IMPCL), a public sector undertaking by AVUSH is located in

- a) New Delhi
- b) Nagpur, MH
- c) Meerut, UP
- d) Mohan, Uttaranchal

71. Margaret Dayhoff developed first protein sequence database called

- a) SWISS PORT
- b) PDB
- c) Atlas of protein and structure
- d) Protein sequence databank

72. The number of isomers of glucose

- a) 4
- b) 8
- c) 12
- d) 16

73. Identify a uterine relaxant

- a) Dinoprostone
- b) Oxytocin
- c) Magnesium sulfate
- d) Ergotamine

74. Glycosidic linkage is an

- a) Amide linkage
- b) Ester linkage
- c) Ether linkage
- d) Acetyl linkage

75. Which of the following is a non-reducing sugar

- a) Glucose
- b) Sucrose
- c) Maltose
- d) Lactose

76. Schedule for shelf life of drug

- a) Schedule Q
- b) Schedule R
- c) Schedule P
- d) Schedule S

77. An important intermediate in the biosynthetic pathway to aromatic amino acids is

- a)  $\alpha$ -Ketoglutarate
- b) Lactate
- c) Orotate
- d) Shikimate

78. Source of veegum is

- a) Natural, plant
- b) Natural, mineral
- c) Natural, Animal
- d) Semisynthetic, Mineral

79. Iodine value is defined as

- a) Number of gram of iodine required to saturate 1 gm of fat
- b) Number of gram of iodine required to saturate 10 gm of fat
- c) Number of gram of iodine required to saturate 100 gm of fat
- d) Number of gram of iodine required to saturate 1000 gm of fat

80. Carbamazepine acts as antiseizure drug by acting as

- a) Blocker of sodium ion channels
- b) Blocker of calcium ion channels
- c) Facilitation of GABA actions on chloride ion channels
- d) Glutamate receptor antagonism

81. Commonly used carrier gas in GC are

- a) Hydrogen and helium
- b) Oxygen and nitrogen
- c) Nitrogen and helium
- d) Hydrogen and nitrogen

82. Glucon D is manufactured by

- a) Rr. Reddy
- b) GSK
- c) Dabur
- d) Heinz

83. The finger print region in IR spectrum ranges from

- a) 4000-3000  $\text{cm}^{-1}$
- b) 3000-2000  $\text{cm}^{-1}$
- c) 1300 -650 $\text{cm}^{-1}$
- d) 4000-1300  $\text{cm}^{-1}$

84. Head quarter of WHO is located in

- a) Geneva
- b) New York
- c) Washington DC
- d) London

85. In sterile dosage form, all of the following buffers are used except

- a) Acetate
- b) Citrate
- c) Borate
- d) Phosphate

86. ICH Q8 guidelines are responsible for

- a) Product development
- b) GMP
- c) Stability
- d) Quality

87. Particles exhibiting Brownian movement in suspensions should have size range of

- a) 50 to 100  $\mu\text{m}$
- b) 10 to 30  $\mu\text{m}$
- c) 25 to 50  $\mu\text{m}$
- d) 2 to 5  $\mu\text{m}$

88. The integrated rate equation for a first order reaction is

- a)  $x/a(a-x) = kt$
- b)  $\log a/(a-x) = 2.303/t$
- c)  $\log a/(a-x) = kt /2.303$
- d)  $X= kt$

89. If the adult dose of a drug is 200 mg, what will be the dose for a infant of 11 months old

- a) 14.6 mg
- b) 6.7 mg
- c) 12.7 mg
- d) 5.7 mg

90. A highway truck driver has profuse rhinorrhoea and sneezing, which amongst The following drugs would you prescribe him

- a) Pheniramine
- b) Promethazine
- c) Dimenhydrinate
- d) Cetrizine

91. The IUPAC name for Naproxen is

- a) (S) - 2 - (6 - ethoxy - 2 - naphthyl) acetic acid )
- b) (S) - 2 - (6 - methoxy - 2 - naphthyl) acetic acid
- c) (S) - 2 - (6 - ethoxy - 2 - naphthyl) propionic acid
- d) (S) - 2 - (6 - methoxy - 2 - naphthyl) propionic acid

92. The concentration of surfactant solution, at which micelles are formed is called as

- a) Zero miceller concentration
- b) Critical miceller concentration
- c) High miceller concentration
- d) Low miceller level

93. Efavirenz limits HIV infection by

- a) Inhibition of viral DNA polymerase
- b) Impairing the binding of HIV virion to CD4 receptors on T- cells
- c) Inhibiting the HIV protease
- d) Serving as an allosteric inhibitor of HIV reverse transcriptase

94. All of the following antiarrhythmic drugs are correctly matched to the group, EXCEPT

- a) Procainamide: class I
- b) Amiodarone: class III

- c) Esmolol: class IV
- d) Diltiazem: class IV

95. The relationship between absorbance (A) and Transmittance (T) can be given by

- a)  $T = 2 + \log A$
- b)  $T = 2 - \log A$
- c)  $A = 2 + \log T$
- d)  $A = 2 - \log T$

96. Rutin is an example of

- a) Triterpene glycosides
- b) Saponin glycoside
- c) Lactone glycoside
- d) Flavonoid glycoside

97. The most common sugar in glycosides

- a)  $\alpha$ -Glucose
- b)  $\beta$ -Glucose
- c)  $\alpha$ -L-Glucose
- d)  $\beta$ -L-Glucose

98. The mechanism of action of furosemide is best described as

- a) Interference with  $H^+/HCO_3^-$  exchange
- b) Blockade of a  $Na^+/K^+/2Cl^-$  transporter



- c) Blockade of a  $\text{Na}^+/\text{Cl}^-$  cotransporter
- d) Blockade of carbonic anhydrase

99. Deflocculated suspension shows..... flow properties

- a) Plastic
- b) Dilatant
- c) Thixotropic
- d) Pseudoplastic

100. The ISI mark on an electrical appliance ensures that the

- a) Appliance is safe
- b) Appliance is new
- c) Appliance is safe and wastage of energy is minimum
- d) Wastage of energy is minimum