

NIPER JEE 2006

1. Which of the following is added to avoid crystallisation in syrup?

- A) Propylene glycol
- B) Polyhydric alcohol
- C) Glycerol
- D) Ethyl alcohol

2. Particle size obtained from a fluid energy mill is _____.

- A) 1-30 μm
- B) 30-60 μm
- C) 60-90 μm
- D) 90-120 μm

3. Gallic acid is used as _____.

- A) Preservative
- B) Emulsifier
- C) Buffer
- D) Antioxidant

4. Green bones are used to manufacture _____ gelatin.

- A) Type A
- B) Type B
- C) A and B both
- D) Type G

5. HLB of o/w emulsifier is _____.

- A) 0-3
- B) 3-6
- C) 7-9
- D) 8-18

6. Range of Visible light is _____.

- A) 0-0.2 μm
- B) 0.2-0.4 μm
- C) 0.4-0.8 μm
- D) 400-800 μm
- E) 200-800 μm

7. Which among the following is an IR source?

- A) Deuterium lamp
- B) Nernst glower
- C) Pneumatic cell
- D) Tungsten lamp

8. Hydrogen bonding is determined by _____ spectroscopic method.

- A) Raman
- B) NMR
- C) IR
- D) UV

9. Most intense peak obtained in mass spectrum is _____.

- A) Molecular ion peak
- B) Base peak
- C) Parent ion peak
- D) Isotopic peak

10. Vehicle used in soft gelatin capsule (SGC) is _____.

- A) PEG
- B) Sorbitol
- C) Glycerol
- D) Propylene glycol

11. Arrange the following spectroscopic technique in the ascending order of their energies: NMR, IR, UV.

- A) $\text{NMR} > \text{IR} > \text{UV}$

- B) $\text{NMR} < \text{IR} < \text{UV}$
- C) $\text{UV} < \text{IR} < \text{NMR}$
- D) $\text{UV} > \text{IR} > \text{NMR}$

12. Reference standard used in NMR is _____.

- A) CDCl_3
- B) D_2O
- C) DPPH
- D) TMS

13. _____ is used for FTIR calibration.

- A) Water
- B) Air
- C) Methanol
- D) KMnO_4

14. According to IP, RS means _____.

- A) Reducing substance
- B) Reducing standard
- C) Reference standard
- D) Reference substance

15. According to IP, solubility range for sparingly soluble substance is 1 part of solute - soluble in _____ parts of solvent.

- A) 0 to 10
- B) 10 to 30
- C) 30 to 100
- D) 100-10000

16. Cough is the side effect of _____.

- A) Valsartan
- B) Codeine
- C) Enalkiran

D) Captopril

17. Volume capacity of '000' size capsule is _____ ml.

A) 0.95

B) 0.85

C) 0.75

D) 0.65

E) 1.37

18. To detect compound without chromophore _____ is done.

A) Change of solvent

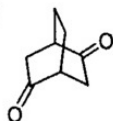
B) Change of range of UV

C) Derivatisation

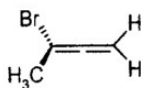
D) All of the above

19. Which of the following molecules is achiral?

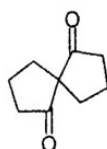
A)



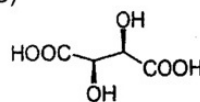
B)



C)



D)



20. Coumarin is _____.

A) 2-phenylchromen-4-one

B) 3-phenylchromen-4-one

C) 2H-chromen-2-one

D) 4-phenylcoumarin

21. Amylase consists of _____ glycosidic linkage.

A) α 1-4

B) α 1-2

C) β 1-4

D) β 1-2

22. Which of the following vitamins is teratogenic?

- A) Vit. C
- B) Vit. E
- C) Vit. D
- D) Vit. A

23. Stereoisomers of cyclic carbohydrates is known as _____.

- A) Epimer
- B) Anomer
- C) Enantiomer
- D) Diastereoisomer

24. Propranolol is contraindicated in _____.

- A) Asthma
- B) Angina
- C) Pregnancy
- D) All

25. 25, 5,7-Dihydroxyflavone is _____.

- A) Chrysin
- B) Rutin
- C) Chalcone
- D) Quercetin

26. Which of the following is cardio toxic?

- A) Vancomycin
- B) Adriamycin
- C) Amphotericin
- D) Penicillin

27. Paclitaxel acts by _____.

- A) Free radical generation
- B) Inhibition of tubulin polymerisation
- C) Inhibiting topoisomerase

D) Enhancing tubulin polymerisation

28. Therapeutic index denotes _____.

- A) Margin of safety
- B) Margin of efficacy
- C) Margin of therapy
- D) All

29. Selective α -1 blocker is _____.

- A) Prazosin
- B) Atenolol
- C) Salbutamol
- D) Losartan

30. A non-animal gelatin capsule has been developed with _____.

- A) Pullulan
- B) Hydroxypropyl methyl cellulose
- C) Both
- D) None

31. Receptors are made up of _____.

- A) Carbohydrates
- B) Protein
- C) Lipids
- D) Amino acids

32. Cytokinins are _____.

- A) Plant hormone regulators
- B) Cytotoxic mediators
- C) Inflammatory mediators
- D) Enzymes

33. Morphine shows its action by acting on _____ receptor.

- A) μ
- B) μ and δ
- C) κ and δ
- D) γ and μ

34. Nicotinic receptor is _____.

- A) Ligand gated ion channel
- B) Tyrosine kinase
- C) GPCR
- D) Nucleic acid type

35. Which of the following is neurodegenerative disorder?

- A) Steven Jonson's syndrome
- B) Brain tumor
- C) Raynaud's syndrome
- D) Alzheimer's disease

36. Indian Ginseng is the synonym of _____.

- A) Withania Somnifera
- B) Ginkgo biloba
- C) Andrographis paniculata
- D) None of the above

37. What is the meaning of welfare state? <https://www.pyqonline.com>

- A) State plays a key role in the protection, promotion of the economic, social well-being of its citizens
- B) Cater to state-based societies
- C) Providing subsidies to the needed operation
- D) Protects, govern or control particular aspects of society

38. Who among the following is known as Father of Chemotherapy?

- A) Robert Koch
- B) Gallan

- C) Paul Ehrlich
- D) Alexander Fleming

39. Bacteria are absent in _____.

- A) Soil
- B) Ice
- C) Dust
- D) Blood
- E) Water

40. Which among the following act as secondary messenger for nicotinic receptor?

- A) IP₃
- B) cAMP
- C) Ions
- D) All

41. Which among the following drug interaction is hazardous?

- A) Terfenadin + Erythromycin
- B) Diazepam + Clarithromycin
- C) Cimetidin + Penicillin
- D) All of the above

42. Which of the following causes cardiac arrhythmia?

- A) Amlodipin
- B) Terfenadine
- C) Phenytoin
- D) Amphotericin B

43. β -2 selective agonist is _____.

- A) Salbutamol
- B) Proprenolol
- C) Atenelol
- D) Timolol

44. _____ is used in treatment of cerebral malaria.

- A) Primaquine
- B) Chloroquine
- C) Quinine
- D) Quinidine

45. Which malaria is deadly?

- A) *P. vivax*
- B) *P. falciparum*
- C) *P. malaria*
- D) All

46. Primaquine is used in _____.

- A) Chloroquine resistant *P. falciparum*
- B) Malaria in pregnancy
- C) African malaria
- D) American malaria

47. Tamoxifen acts as _____.

- A) Aromatase inhibitor
- B) Estrogen agonist
- C) Estrogen antagonist
- D) Progesterone antagonist

48. Metallic elements are detected by _____.

- A) ESR
- B) IR
- C) AAS
- D) Fluorescence

49. Enthalpy is used to measure _____.

- A) Viscosity

- B) Flow property
- C) Heat transfer
- D) Temperature of solid

50. Luminescence, fluorescence and phosphorescence are the types of _____.

- A) Absorption spectroscopy
- B) Emission spectroscopy
- C) Both A and B
- D) Transmittance

51. Rate kinetics deal with _____.

- A) Order of reaction
- B) Molecularity of reaction
- C) Concentration of reactant
- D) All of the above

52. Preparative HPLC is used for _____.

- A) Separation of protein and peptide
- B) Separation of enantiomeric compounds
- C) Troubleshooting tool
- D) All of the above

53. The Anti-Markownikov addition of HBr to styrene gives _____.

- A) β -bromoethyl benzene
- B) 1-bromoethyl benzene
- C) Bromobenzen
- D) Ethylbenzen

54. Antibody consists of _____.

- A) 4 polypeptides—two heavy chains and two light chains joined to form a "Y" shaped molecule
- B) 3 polypeptides—one heavy chain and two light chains joined to form a "Y" shaped molecule
- C) 4 polypeptides—two heavy chains and two light chains joined to form an "X" shaped molecule
- D) 3 polypeptides—two heavy chains and one light chain joined to form a "Y" shaped molecule

55. Which anti-TB drug can cross BBB?

- A) Ethambutol
- B) Rifampin
- C) Cycloserine
- D) None of the above

56. Dissolution of partnership is done for a firm based on ____.

- A) Agreement
- B) Compulsion
- C) Notice or order
- D) All

57. Persistent deafness is a side effect of ____.

- A) Penicillin
- B) Streptomycin
- C) Quinine
- D) Aspirin

58. Which type of chromatography is also called as 'planar chromatography?'

- A) TLC
- B) Paper chromatography
- C) Open bed chromatography
- D) All of these

59. Which of the following cytotoxic product is obtained from marine source?

- A) Polymeric 3-alkylpyridinium
- B) Tentacles
- C) Bryostatin
- D) Paclitaxel

60. Ostwald ripening is an important parameter in the formulation of ____.

- A) Emulsion

- B) SMEDDS
- C) Suspension
- D) Liposome

61. Which property is not related to polymorphism?

- A) Crystallinity
- B) Solubility
- C) Chemical assay
- D) Toxicity

62. Osmotic pressure of the human blood is ____.

- A) 7.65 atm
- B) 0.9 atm
- C) 5 atm
- D) 76.5 atm

63. Onset of action for nasal delivery system is ____.

- A) Less than 1 minute
- B) 3-5 minutes
- C) 1 hour
- D) 6-8 hours

64. Onset of action for mucoadhesive delivery system is ____.

- A) Less than 1 minute
- B) 3-5 minutes
- C) 1 hour
- D) 6-8 hours

65. The largest cotton producer in the world is ____.

- A) India
- B) China
- C) USA
- D) Brazil

E) Pakistan

66. Which of the following is a Free Trade Port in India?

A) Kandla

B) Karaikal

C) Cochin

D) Quilon

67. Causative organism for Amoebiasis is ____.

A) G. lamblia

B) Plasmodium

C) E. histolytica

D) Trypanosoma brucei

68. In clock 12 O'clock is north east then at 1:05pm what would be direction?

A) South

B) East

C) North

D) West

69. If cyclohexane is mono-substituted, then the substituent will most likely be found attached in ____ positions.

A) Equatorial

B) Axial

C) Both

D) Cis

70. Alanine exhibits which type of isomerism?

A) Optical isomerism

B) Absolute isomerism

C) Relative isomerism

D) All

71. In exothermic process, increase in temperature indicates ____.

- A) Reactant concentration is more.
- B) Product yield is more.
- C) Reaction has stopped
- D) Equilibrium has been achieved

72. Which of the following alkaloids is present in cough syrup?

- A) Phenyl epinephrine
- B) Codeine
- C) Morphine
- D) Glycyrrhizin

73. Terpenoid is synthesised by ____.

- A) Mevalonic acid pathway
- B) MEP/DOXP pathway
- C) Both
- D) Cannot say

74. Diosgenin contains ____ skeleton.

- A) Steroidal
- B) Torpedoed
- C) Phenanthrine
- D) Pentacyclic

75. The number of isoprene units present in triterpenoid are ____.

- A) 3
- B) 4
- C) 6
- D) 5

76. How many amino acids are present in dipeptide bond?

- A) 2
- B) 3

C) 4

D) 5

77. Which of following contains chromosome or DNA?

A) Mitochondria

B) ER

C) Golgi body

D) Cytoplasm

78. What is the function of t-RNA?

A) Carries instructions on how to connect several "amino acids" into a peptide chain.

B) Translation the language of RNA into the language of protein

C) Translate the language of DNA into the language of RNA

D) Translate the language of RNA into the language of DNA

79. IPEC deals with ____.

A) Excipient

B) US FDA

C) GMP

D) GLP

80. ABC analysis deals with ____.

A) Selection of component

B) Accounting

C) Inventory control

D) Quality control

81. Fill in the gap: stu _ _ st _ _ ws _ _ vw.

A) uv tu ws

B) st uv wt

C) vw uv tu

D) wu vs tw

82. Which of the following is an endothermic reaction?

- A) Adsorption
- B) Crystallization
- C) Vaporization
- D) All

83. Phase-IV clinical trials deal with ____.

- A) Post marketing survey
- B) Safety and efficacy
- C) Micro dosing
- D) Bioequivalence study

84. IND is filed when ____.

- A) New Chemical Entity is investigated
- B) New Chemical Entity is changed to New Molecular Entity
- C) New Chemical Entity converted to new formulation
- D) New Chemical Entity formulation change to another formulation

85. Ca^{++} channel blocker is used in which of the following condition? <https://www.pyqonline.com>

- A) Cerebral ischemia
- B) Myocardial infarction
- C) Angina
- D) All

86. Recommended velocity for laminar airflow unit is ____.

- A) 0.36 m/s - 0.45 m/s
- B) 0.46 m/s - 0.55 m/s
- C) 0.56 m/s - 0.60 m/s
- D) None of the above

87. D-erythrose and D-threose are ____.

- A) Epimers
- B) Enantiomers

C) Diastereomers

D) Anomers

88. Which of the following is a non-reducing sugar?

A) Lactose

B) Maltose

C) Sucrose

D) Starch

89. Un-saturation in an organic compound is determined by ____.

A) Bromination

B) Hydrogenation

C) Ozonolysis

D) All of the above

90. In NMR ____ peaks will be observed for 1,4-dioxane.

A) 1

B) 2

C) 3

D) 4

E) 5

91. Redness in tomato is due to ____.

A) Canthaxanthin

B) Lycopene

C) Lawson

D) Tomopene

92. Insulin acts on ____.

A) Liver and muscles

B) Alpha cells

C) Beta cells

D) Neurons

93. PG is synthesized by ____.

- A) COX I
- B) COX II
- C) COX III
- D) All of the above

94. Aspirin is ____.

- A) Irreversible and non-competitive COX inhibitor
- B) Reversible COX inhibitor
- C) Reversible and non-competitive COX inhibitor
- D) Irreversible COX inhibitor

95. Phenytoin is used in ____.

- A) Supraventricular arrhythmias
- B) Ventricular arrhythmias
- C) Bradyarrhythmias
- D) Digitalis-induced arrhythmia

96. Ondansetron + cisplatin combination is given in cancer therapy ____.

- A) To reduce side effect of Cisplatin
- B) Achieve complete control of acute emesis
- C) To avoid the tumor cell resistance
- D) Synergistic effect

97. Serotonin is ____.

- A) Monoamine
- B) Chemical mediator
- C) Neurotransmitter
- D) All

98. The function of Alcohol dehydrogenase is ____.

- A) Conversion of toxic alcohols to aldehydes

- B) Conversion of toxic alcohols to dehydrates
- C) Conversion of toxic alcohols to water
- D) Conversion of toxic alcohols to Amide

99. Major product obtained from purine metabolism is ____.

- A) Urea
- B) Uric acid
- C) Ammonia
- D) Nucleic acid

100. Largest Saffron cultivating Indian state is ____.

- A) Gujarat
- B) Bengal
- C) Kerala
- D) Jammu and Kashmir

NIPER JEE 2006 ANSWER KEY

Que.	Ans.	Que.	Ans.	Que.	Ans.	Que.	Ans.	Que.	Ans.
1	B	21	A	41	A	61	C	81	C
2	A	22	B	42	B	62	A	82	C
3	D	23	B	43	A	63	B	83	A
4	B	24	A	44	C	64	D	84	B
5	D	25	A	45	B	65	B	85	C
6	C	26	B	46	A	66	A	86	A
7	B	27	D	47	C	67	C	87	C
8	C	28	A	48	C	68	B	88	C
9	B	29	A	49	C	69	A	89	D
10	A	30	C	50	B	70	D	90	A
11	D	31	B	51	D	71	B	91	B
12	D	32	A	52	B	72	B	92	A
13	B	33	A	53	A	73	C	93	D
14	C	34	A	54	A	74	A	94	A
15	C	35	D	55	B	75	C	95	D
16	D	36	A	56	D	76	B	96	B
17	E	37	A	57	B	77	A	97	D
18	D	38	C	58	D	78	B	98	A
19	B	39	D	59	C	79	A	99	B
20	C	40	C	60	C	80	C	100	D