

Instructions:

1. Ensure that all pages are printed.
2. Use Black ball pen only
3. Change in option is not allowed
4. There is no negative marking
5. Use of non-programmable scientific calculator is allowed

1. Glucose on oxidation with bromine water forms

A Glucuronic acid	B Glucosaccharic acid
C Gluconic acid	D Mannose
2. Methadone is an analgesic drug belongs to the class of

A Phenylpropylamine	B Phenyl piperidine
C Benzomorphan	D Morphinan
3. Minimum number of carbon required for a ketose sugar to have cyclic structure is

A 6	B 5
C 4	D 3
4. Which of the following drug shows three different pK_a values?

A Aspirin	B Phenytoin
C Guanithidine	D Tetracycline
5. LDL and HDL are commonly known as _____ and _____ respectively.

A good cholesterol, bad cholesterol	B bad cholesterol, good cholesterol
C assimilatory cholesterol, oxidative cholesterol	D oxidative cholesterol, assimilatory cholesterol
6. 1,8-Naphthyridone heterocyclic nucleus is present in _____.

A Nalidixic acid	B Ciprofloxacin
C Oxolinic acid	D Moxifloxacin
7. Rancidity of lipids of lipid rich food is due to

A hydrogenation of unsaturated fatty acids	B dehydrogenation of saturated fatty acids
C oxidation of fatty acids	D reduction of fatty acids
8. 19-Nor steroids

A have methyl group at 18 position	B lack methyl group at 18 position
C have methyl group at 19 position	D lack methyl group at 19 position
9. Which of the following amino acid bears a guanidine group in the side chain?

A Arginine	B Lysine
C Histidine	D Proline
10. Which isomer of diethylstilbestrol is active?

A Cis	B Meso
C Trans	D None of the above
11. Which of the following converts PGH_2 to thromboxane A_2 ?

A Enoyl-ACP reductase	B Thromboxane synthase
C β -ketoacyl ACP reductase	D Cyclooxygenase
12. What role does the t-butyl group play in Salbutamol?

A It acts as steric shield to reduce metabolism	B It increases hydrophobicity such that the molecule can cross cell membranes
---	---

- C It introduces selectivity for α -adrenoceptors D It introduces selectivity for β -adrenoceptors
13. Pyroelectric transducers are used in
A mass spectrometer B spectrofluorometer
- C FTIR D NMR spectrometer
14. Which conformation of acetylcholine is most active?
A Anticlinal B Antiplanar
C Synplanar D Synclinal
15. A peak with highest mass to charge ratio in mass spectrum is known as
A base peak B molecular ion peak
C fragment ion peak D metastable peak
16. Morphine is best described as _____ base.
A monoacid tertiary B diacid tertiary
C monoacid secondary D diacid secondary
17. Which of the following is an official IP method for assay of sulpha drugs?
A UV-visible spectrophotometry B Acid-base titration
C HPLC D Nitrite titration
18. According to Veber rule for optimum activity for orally active drug, the number of rotatable bond in a drug should be
A ≤ 10 B ≥ 10
C > 10 D < 10
19. Which of following chromatographic technique is not based on principle of partition?
A Supercritical fluid chromatography B Liquid-liquid chromatography
C Ion-exchange chromatography D Gas liquid chromatography
20. To which class of compounds do adrenaline, noradrenaline and dopamine belong?
A Phenyl ethylamines B Catecholamines
C Diphenylethylamines D Adrenergics
21. Which of the following material is used as a stationary phase in reverse phase chromatography?
A Octadecyl silane B Magnesium oxide
C Activated silica D Calcium carbonate
22. For a molecule to exhibit antihistaminic activity, the distance between the central point of diaryl ring system and aliphatic N should be
A 3-4 A° B 4-5 A°
C 5-6 A° D 6-7 A°
23. In fluorimetry, the emission radiation is always
A equal to excitation radiation B more energetic than the excitation radiation

- C of a shorter wavelength than the excitation radiation D of a longer wavelength than the excitation radiation
24. Which conformer of histamine does not act on H₂ receptor site?
 A Trans B Gauche
 C Totally eclipsed D Skew eclipsed
25. Which of the following techniques is least useful for structural determination of small organic molecules?
 A UV spectroscopy B GC-MS
 C FT-IR D NMR
26. The following statements describe the chemistry of prostaglandins except
 A 1 to 3 double bonds B 5-membered ring system
 C 21-carbon skeleton D Ketone group
27. In penicillin, 2-azetidinone ring is fused with _____ ring.
 A dihydrothiazine B thiazolidine
 C pyrrolidine D oxazolidine
28. The 5 β -pregnane is said to have a _____ back bone.
 A trans-anti-cis-anti-cis B cis-syn-trans-syn-trans
 C trans-anti-trans-anti-trans D cis-anti-trans-anti-trans
29. Find out prodrug from followings.
 A Oxyphenbutazone B Piroxicam
 C Sulindac D Naproxen
30. DSC spectrum is represented as
 A % weight vs time B Heat flow vs temperature
 C ΔT vs temperature D ΔT vs volume of titrant
31. The free anthraquinones give _____ reaction positive
 A Borax test B Benedicts test
 C Borntrager's test D Barfoed's test
32. Which of the following is the source toxalbumin ricin
 A Linseed B Croton seeds
 C Abrus seeds D Castor seeds
33. Which of the following is a C-glycoside
 A Vitexin Quercetin
 C Quercitrin Kaempferol
34. Which of the following type of alkaloids derived from tryptophan?
 A Tropane B Isoquinoline
 C Indole D Phenylethylamines
35. Presence of tetra hydroisoquinoline alkaloid is a characteristic feature of _____ family.
 A Scrophulariaceae B Papaveraceae
 C Ranunculaceae D Solanaceae
36. Which of the following families is not characterized by synthesis and accumulation of essential oil?

- C Reverse transcriptase inhibition D Post translational event inhibition
62. Which of the following is drug of choice for treatment of febrile convulsions:
 A Phenytoin B Diazepam
 C Clozapine D Domperidone
63. Positive symptoms of schizophrenia include following, except:
 A Hallucination B Dellusion
 C Disorganized speech and behaviour D Alogia
64. Which of the following is atypical antipsychotic agent:
 A Chlorpramzine B Haloparidol
 C Clozapine D Levodopa
65. Sumatriptan is:
 A 5-HT₁ receptor agonist B 5-HT₁ receptor antagonist
 C Dopamine receptor agonist D Dopamine receptor antagonist
66. Guaifenesin is generally used as :
 A antibacterial B antiinflammatory
 C antitussive D Expectorant
67. Which of the following is used for induction of labour:
 A ofloxacin B oxytocin
 C omeprazole D olanzepine
68. Following is an oral antidiabetic agent belongs to class sulfonylurea, except:
 A glibenclamide B gliclazide
 C Metformin D glimepiride
69. Which of the following should be generally used with caution in asthma:
 A Loperamide B Amoxicillin
 C Ibuprofen D Salbutamol
70. With the chronic use of morphine less tolerance and dependence is developed in following effects, except:
 A analgesia B Constipation
 C Euphoria D Respiratory Depression
71. The type of particle diameter that is obtained by sedimentation method of evaluation is
 A Volume B Stoke's
 C Volume-surface D Projected
72. Example of the polymer exhibiting pH dependent solubility is

- A BCG
C Both A & B
- B MMR
D None
83. Mantoux test is used for the diagnosis of
A Tuberculosis
C Gas Gangrene
B Diphtheria
D Whooping cough
84. What is the percentage of zinc oxide in an ointment prepared by mixing 200 gm of 10 % w/w ointment, 300 gm of 15% w/w ointment and 100 gm of 5 % w/w ointment
A 10.00 % w/w
C 10.67 % w/w
B 11.67 % w/w
D 15.00 % w/w
85. The statement store in cool place as per IP means
(A) store at room temperature
(C) store at any temperature between 8^oC to 25^oC
B store between 2^o to 8^oC
D store at 0^oC
86. "Schedule S" in The Drugs and Cosmetics act depicts
A Standards for the cosmetics
C Self life of the drugs
B Standards for surgical dressings
D Standards for mechanical contraceptives.
87. At constant temperature, as the amount of liquid propellant in the aerosol increases from 20 % to 40 %
A Pressure in the aerosol increases two fold
C Pressure in the aerosol decreases
B Pressure in the aerosol increases significantly but less than twofold
D Pressure in the aerosol do not change
88. In Aerosol, regulation of dose is concerned with
A Propellant
C Metered valve
B Actuator
D Ferrule
89. Sodium citrate is used in the Calamine lotion IP 66 as
A Preservative
C Flocculating agent
B Chelating agent
D To adjust pH of lotion to 6.8
90. Oily vehicle for the Intramuscular injection can be
A Sunflower oil
C Silicone oil
B Liquid Paraffin
D All of the above
91. Mechanism of sterilization by the autoclaving is
A Alkalization
C Damage to DNA
B Denaturation of proteins
D Charring of essential organic compounds
92. The Time to reach the steady state plasma concentration of drug in case of Intra Venous infusion is dependent on

