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Post Graduate Admission Test

1. The plasma $t_{1/2}$ of Insulin is
A. 5-9 min B. 10-15 min C. 1-2 min D. 20-30 min
2. The chemical nature of Thyrotropin Releasing Hormone (TRH) is
A. Tripeptide B. Peptide (41AAs) C. Decapeptide D. Unknown
3. Penicillamine is chemically
A. Diethyl cysteine B. Dimethyl cysteine
C. Diethylene triamine penta acetic acid D. Salicylic acid derivative
4. Cyclosporine is a cyclic polypeptide with 11 amino acids, obtained from
A. Bacterium B. Virus C. Plants D. Fungus
5. Which group of antibiotics is used as luminal amoebicide
A. Tetracyclines B. Macrolides C. Beta lactams D. Aminoglycosides
6. Dopamine, an adrenergic drug is classified as
A. Cardiac stimulant B. Bronchodilator C. Pressor agent D. CNS stimulant
7. The enzyme which converts KALLIDIN to BRADYKININ, in the cycle of generation and degradation of plasma kinins, is
A. Kininase I B. Kininase II C. Amino-peptidase D. Trypsin
8. Chemically, Prostaglandins may be considered to be derivatives of
A. Salicylic acid B. Prostanoic acid C. Benzoic acid D. None
9. The alkaloids present in an average cup of tea are
A. Caffeine B. Caffeine and theobromine
C. Caffeine and theophylline D. Theobromine
10. The stable isotope of Iodine is
A. ^{127}I B. ^{90}I C. ^{113}I D. ^{65}I
11. Corticosterone +CHO at 18 is the structure of
A. Prednisolone B. Hydrocortisone C. Cortisone D. Aldosterone
12. Spermatogenesis takes
A. 25 days B. 30 days C. 45 days D. 64 days
13. Fanconi syndrome is associated with
A. Lower phosphate level B. Higher phosphate level
C. Lower calcium level D. Higher calcium level
14. Second gas effect is significant for
A. Ether B. Halothane C. Nitrous oxide D. Desflurane
15. Disulfiram inhibits the enzyme
A. Alcohol dehydrogenase B. Aldehyde dehydrogenase
C. Both A and B D. None
16. Toxic effects of methanol are largely due to
A. Formic acid B. Folic acid C. Nitric acid D. None
17. Clozapine do not have
A. Sedative effect B. Hypotensive effect C. Antiemetic effect D. None
18. Gold salts are used for which disease
A. Rheumatoid arthritis B. Viral diseases C. Hypertension D. Diabetes
19. The ventricles are dilated and unable to develop adequate wall tension to eject significant quantity of blood in
A. Systolic dysfunction B. Diastolic dysfunction C. Both A and B D. None
20. Which antihypertensive drug is classified as diuretic
A. Captopril B. Losartan C. Diltiazem D. Furosemide

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21. Cochineal consists of
- Dried full grown female insects, enclosing young larvae of *Coccus cacti*.
 - Dried full grown male insects, enclosing young larvae of *Coccus cacti*.
 - Dried full grown female insects of *Coccus cacti*.
 - Dried full grown male insects of *Coccus cacti*.
22. The following glycosidic drug is used as rat poison
- Rhubarb
 - Red squill
 - Indian squill
 - European squill
23. Lawson which has antifungal properties is extracted from
- Kalmegh
 - Henna
 - Chirata
 - Gentian
24. The following reagent is used to test the presence of volatile oils
- Mayer's reagent
 - Sudan III
 - Acetone
 - Tincture Iodine
25. The adulterant added to balsam of tolu is
- Benzoin
 - Colophony
 - Exhausted balsam of tolu
 - All
26. The enzyme found from the glandular layer of fresh stomach of hog, *Sus scrofa* is
- Diastase
 - Pepsin
 - Rennin
 - Pancreatin
27. Sclerotium stage occurs in the life cycle of which alkaloid
- Ergot
 - Ephedra
 - Kurchi
 - Aconite
28. Vasaka contains which group of alkaloids
- Tropane
 - Imidazole
 - Purine
 - Quinazoline
29. Withania root is the synonym for which drug
- Veratrum
 - Ashwagandha
 - Colchicum
 - Cinchona
30. The surface sterilization of explants is done with
- Sodium hypochlorite
 - Bromine water
 - Silver nitrate
 - All
31. Phosphorescence is
- The emission of radiation when electrons undergo transition from triplet state to singlet ground state.
 - The emission of radiation when electrons undergo transition from triplet state to doublet state.
 - The emission of radiation when electrons undergo transition from triplet state to singlet excited state.
 - The emission of radiation when electrons undergo transition from doublet state to singlet ground state.
32. In Mass spectrometry, conversion of neutral molecule to positive charged one is done by
- Electromagnetic radiation
 - Electron bombardment
 - Magnetic radiation
 - Infrared radiation
33. Application of mass spectrometry include
- Structure elucidation
 - Detection of impurities
 - Drug metabolism studies
 - All
34. In the polarogram, the point of inflection in the curve is known as
- Limiting current
 - Residual current
 - Decomposition potential
 - Half-wave potential
35. In reverse phase chromatography:
- Stationary phase is polar and mobile phase is non-polar
 - Stationary phase is non-polar and mobile phase is polar
 - Stationary phase and mobile phase are both polar
 - None of above
36. R_f value is:
- Distance travelled by solute/Distance travelled by solvent front
 - Distance travelled by solvent front/Distance travelled by solute
 - $\log(\text{Distance travelled by solute}/\text{Distance travelled by solvent front})$
 - $\log(\text{Distance travelled by solvent front}/\text{Distance travelled by solute})$

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37. The indicators used in complexometric titration are called
A. pH indicators B. pM indicators C. pKa indicators D. None
38. $pH = pK_a + \log\left[\frac{\text{ionized drug}}{\text{un-ionized drug}}\right]$. This equation stands for
A. Acidic compounds B. Basic compounds C. Neutral compounds D. None
39. The Noyes-Whitney equation for drug dissolution states: $dC/dt = [DA(C_s - C)/hV]$. Here "h" is:
A. The diffusion coefficient B. Volume of media
C. Concentration of drug D. Thickness of the diffusion layer at the solid-liquid interface
40. Breakdown of tablet into smaller particles or granules is known as
A. Dissolution B. Disintegration C. Solubilization D. Diffusion
41. The polymer which is of cationic nature is
A. Sodium alginate B. Pectin C. Gelatin D. Chitosan.
42. The polymer which is used for enteric coating is
A. Pectin B. Hydroxy propyl methyl cellulose C. Shellac D. Chitosan
43. Effervescent tablets are used for
A. Floating drug delivery B. Colon targeting C. Delayed release delivery D. None
44. Emulsions can be diluted with
A. Internal phase B. External phase C. Both A and B D. None
45. Water-soluble bases prepared from natural gums or from synthetic derivatives of natural substances is called
A. Pastes B. Gels C. Jellies D. Ointments
46. Gasket of aerosol assembly is manufactured from
A. Nylon B. Polyethylene C. Delrin D. Buna-N and neoprene rubber
47. The quality control of sterile products is done by
A. Leaker test B. Clarity test C. Pyrogen test D. All
48. The water attack test is used only for which type of glass
A. Type I B. Type II C. Type III D. Type NP
49. The reaction in which an optically active substance loses its optical activity without changing its chemical composition is called
A. Photolysis B. Racemization C. Chelation D. None
50. Accelerated stability studies are performed at
A. 40°C/75% RH B. 25°C/60% RH C. 30°C/65% RH D. 60°C
51. The release kinetic model in which the release rate is independent of concentration is
A. Zero order B. First order C. Both A and B D. None
52. When the thickness of tablet increases, hardness:
A. Decreases B. Increases C. No effect D. None
53. Microparticles can be
A. Delivered in capsules B. Compressed into tablets
C. Dissolved or dispersed in sterile solvents for parenteral delivery D. All
54. Rotary die process is used for the manufacture of
A. Hard gelatin capsules B. Soft gelatin capsules C. Tablets D. None
55. The mill which works on the principle of attrition and impact is
A. Cutter mill B. Hammer mill C. Roller mill D. Ball mill
56. Standards for ophthalmic preparations are mentioned in
A. Schedule M1 B. Schedule FF C. Schedule Y D. Schedule G
57. Import of drugs and cosmetics is mentioned in which chapter of the Drugs and Cosmetics Act, 1940
A. Chapter I B. Chapter II C. Chapter III D. Chapter IV

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58. The type of bacteria which utilizes inorganic material is called

- A. Autotroph B. Heterotroph C. Halophile D. Aerobe

59. The optimum pH for growth of bacteria is

- A. 1-2 B. 2-4 C. 5-6 D. 7.2-7.6

60. Pure water, by definition has water activity value "Aw" of

- A. 1.00 B. 10.00 C. 100.00 D. 0.7

Answers: SET-I

1. A; 2. A; 3. B; 4. D; 5. A; 6. C; 7. C; 8. B; 9. C; 10. A; 11. D; 12. D; 13. A; 14. C;
15. B; 16. A; 17. C; 18. A; 19. A; 20. D; 21. A; 22. B; 23. B; 24. B; 25. D; 26. B; 27. A;
28. D; 29. B; 30. D; 31. A; 32. B; 33. D; 34. D; 35. B; 36. A; 37. B; 38. A; 39. D; 40. B;
41. D; 42. C; 43. A; 44. B; 45. C; 46. D; 47. D; 48. B; 49. B; 50. A; 51. A; 52. A; 53. D;
54. B; 55. D; 56. B; 57. C; 58. A; 59. D; 60. A.