



Discipline: PHARMACY (Faculty of Pharmacy)

3rd PhD ENTRANCE TEST (PET-2018)

Roll No: _____ Date: 3rd June 2018 Signature of the Candidate: _____

- How many gms drug is required to prepare 500 ml of a 1:2500 solution?
 (a) 0.2 (b) 0.002 (c) 0.4 (d) 1.25
- Benzalkonium chloride is a germicidal surfactant which is rendered inactive in the presence of:
(a) Organic acid (b) Cationic surfactant (c) Soaps (d) Inorganic salts
- Lamination is:
 (a) Separation of a tablet into two or more distinct layers
(b) Partial or complete separation of the top and bottom crowns of a tablet from the main body of the tablet
(c) Process of sub-coating agent
(d) None of above
- Which is the ideal combination for testing the solubility of an enteric coated capsule in alkaline medium?
(a) Sodium bicarbonate + Potassium hydroxide + Pepsin
(b) Sodium bicarbonate + Sodium tauroglycocholate + Papain
 (c) Sodium bicarbonate + Pancreatin + Sodium tauroglycocholate
(d) Sodium bicarbonate + Bilirubin
- Water attack test is used to identify the alkalinity in:
(a) Type I glass (b) Type II glass (c) Type III glass (d) All the 3 types
- Tyndallisation means:
(a) Successive autoclaving with a bactericide
(b) Successive heating with a bactericide
 (c) Successive heating at low temperature
(d) Successive autoclaving at low temperature and incubation
- The term bioavailability refers to the:
(a) Relationship between the physical and chemical properties of a drug and the systemic absorption of the drug
 (b) Measurement of the rate and amount of therapeutically active drug that reaches the systemic circulation
(c) Movement of drug into the body tissues over time
(d) Dissolution of a drug in the gastrointestinal tract



8. Which two of the following types of techniques are used for depot formulation?
P. Dissolution controlled
Q. Encapsulation type
R. Solubilization
S. Parenteral suspension
(a) P, Q (b) Q, R (c) P, S (d) P, R
9. How much water is to be added to convert 50 ml of 1 in 2000 solution of atropine sulphate into 1 in 5000 solution?
(a) 30 ml (b) 45 ml (c) 50 ml (d) 75 ml
10. Separation of a colloidal rich layer from a lyophilic solution on addition of another substance is termed as-----This is used extensively in microencapsulation:
 (a) Coacervation (b) Phase separation (c) Emulsification (d) Salting out
11. In WHO guidelines for the herbal drugs, contaminants include:
(a) Purine and Pyrimidine based (b) Amino acid
(c) Pentoses (d) Pesticidal residues, arsenic heavy metal, microbial load
12. Glycyrrhizin, a sweet principle of liquorice is:
(a) K and Mg salts of glycyrrhizic acid (b) Na and Mg salts of glycyrrhetic acid
 (c) K and Ca salts of glycyrrhizic acid (d) Na and Ca salts of glycyrrhetic acid
13. Senna leaf IP consists of:
 (a) Dried leaflets of *Cassia acutifolia* and *Cassia angustifolia*
(b) Dried leaflets of *Cassia indica*
(c) Dried leaflets of *Cassia carpinifolia*
(d) Dried leaflets of *Cassia carpinifolia* and *Cassia acutifolia*
14. Precursor for the biosynthesis of tropane alkaloids is:
(a) Leucine (b) Lysine (c) Ornithine (d) Tyrosine
15. Vincristine and Vinblastine act by:
 (a) Binding with protein tubulin and arrest at metaphase
(b) Inhibition the protein synthesis
(c) Act as antimetabolite
(d) Inhibiting the enzyme system
16. Leaves of *Digitalis purpurea* gives which of the following test positive?
(a) Borntrager's test (b) Murexide test (c) Legal's test (d) Thalleoquin test
17. Which is the right reagent for identification of Ergot alkaloids?
 (a) Van Urk (b) Fehling I and II (c) Iron-III-chloride (d) Phloroglucinol in hydrochloric acid



18. Eugenol is present in:
(a) Fennel (b) Tulsi (c) Cardamom (d) Coriander
19. Alkaloids are not precipitated by:
(a) Mayer's reagent (b) Dragendorff reagent
(c) Picric acid (d) Millon's reagent
20. Which of the following constituents is reported to have anti-hepatotoxic activity?
(a) Podophyllotoxin (b) Linalool (c) Andrographoloid (d) Safranal
21. Wave number of a spectrophotometer is:
(a) Per second (b) Per centimeter (c) Per inch (d) Per centimeters³
22. In NMR spectrometry, the chemical shift (δ) is expressed in:
(a) Parts per million (b) Gauss (c) Tesla (d) Hertz
23. The presence of unpaired electron in metal ion complex meant for spectral analysis is called:
(a) Paramagnetic (b) Diamagnetic (c) Bimagnetic (d) Unimagnetic
24. Quaternary structure of a protein molecule refers to:
(a) Specific association of two or more copies of polypeptide chain to result in a biologically active molecule
(b) Regularly seen local structures within a polypeptide chain
(c) The portion of polypeptide chain that comes into contact with another protein molecule
(d) The portion of the structure that gets stabilized upon binding to nucleic acids
25. Clavulanic acid has a beta-lactum ring fused to-----.
(a) Thienyl system (b) Thiadiazole system
(c) Thiazolidine system (d) Oxazolidine system
26. Sulphonamide tragedy was due to its combination with-----.
(a) Penicillin (b) Streptomycin (c) Diethyl glycol (d) Bicarbonate
27. Pheniramine maleate is an antihistaminic agent belonging to the class:
(a) Ethylenediamine derivative (b) Cyclic basic class analogs
(c) Aminoallyl ether analogs (d) None of the above
28. Sedative action of barbiturate is due to substituents at C₅. It is due to-----.
(a) High lipophilicity of groups at C₅ positions (b) Electronic withdrawing effect
(c) Steric effect (d) Metal chelation
29. Pregnenolone, an intermediate in the syntethesis of steroids, on Oppeneur oxidation gives:
(a) Progesterone (b) 9 α - Flurocortisol (c) Triamcinolone (d) α - Methyl prednisolone



30. Lidocaine is synthesized from:
- (a) 2,6-dimethyl-5-amino methyl benzene (b) 2,6-dimethyl-5-nitro methyl benzene
 (c) 2,6-xylidene (d) 2-methyl-6-ethyl-5-amino methyl benzene
31. Which one of the following types of adverse drug reactions is not believed to be dose related phenomena?
- (a) Side effects and toxic reactions (b) Toxic reactions and hypersensitivity
(c) Side effects and hypersensitivity (d) Hypersensitivity and idiosyncrasy
32. The mechanism of action of Rifampicin involves-----.
- (a) Inhibition of bacterial DNA-directed RNA-polymerase (b) Inhibition of mycolic acid synthesis
(c) Inhibition of protein synthesis (d) Inhibition of transpeptidase
33. Purpose of a combined drug regimen in tuberculosis is to-----.
- (a) Delay the emergence of drug resistance (b) Reduce the duration of active therapy
(c) Schedule the onset of therapy (d) Promote a placebo effect on the patient
34. HIV infection can be clinically controlled with:
- (a) Zidovudine (b) Acyclovir (c) Zidovudine (d) Amantadine
35. The characteristic toxicity of doxorubicin is-----.
- (a) Kidney damage (b) Liver damage (c) Cardiotoxicity (d) Pulmonary fibrosis
36. A cardio-selective beta blocker with vasodilating properties is-----.
- (a) Pindolol (b) Atenolol (c) Bisoprolol (d) Nebivolol
37. In congestive cardiac failure, digitalis glycosides are used because it increases-----.
- (a) The heart rate (b) The force of myocardial contraction
(c) The venous pressure (d) The cardiac filling pressure
38. Parkinsonism is a common neurological movement disorder. Signs include rigidity of skeletal muscles, akinesia, flat faces and tremors at rest. Both L-DOPA and Carbidopa are used because--.
- (a) It crosses blood brain barrier (b) It inhibits aromatic L-amino acid decarboxylase
(c) It inhibits MAO type A (d) It inhibits MAO type B
39. Select the specific unwanted effect of L-DOPA.
- (a) Dementia (b) Hypertension (c) Dyskinesia (d) Excitotoxicity
40. Pharmacodynamics is defined as-----.
- (a) The effect the body has on drugs (b) The action of the liver on drug molecules
 (c) The effect a drug has on body (d) The movement of a drug around the body

