

PET-2017 (Pharmacy- Faculty of Pharmacy)

Roll No:

Date..... 25 JUN 2017

Signature of the Candidate:

1. The pH of pharmaceutical buffer system can be calculated by:

- (a) pH partition theory
- (b) Noyes Whitney law
- (c) Henderson- Hasselbalch equation
- (d) Charle's law

2. Select the equation that gives the rate of drug dissolution from a tablet.

- (a) Fick's law
- (b) Henderson- Hasselbalch equation
- (c) Noyes Whitney law
- (d) Michelis Menton equation

3. The disintegration time for sugar coated tablet is:

- (a) 30 min
- (b) 45 min
- (c) 60 min
- (d) 75 min

4. Disposable syringes are made up of

- (a) Polypropylene
- (b) Transparent polystyrene
- (c) Glass
- (d) Poly tetra chloro ethylene

5. As per G.M.P., permitted limit of solid content in water for injection is

- (a) 100 ppm
- (b) 1.0 ppm
- (c) 0.1 ppm
- (d) 10.0 ppm



25 JUN 2017

6. The loading dose of a drug is usually based on

- (a) Total body clearance of the drug
- (b) Percentage of drug bound to plasma proteins
- (c) Fraction of drug excreted unchanged in urine
- (d) Apparent volume of distribution and desired drug concentration in plasma

7. A new drug delivery system which is composed of phospholipids that spontaneously form a multilamellar concentric bilayer vesicles with layers of aqueous media separating the lipid layers is:

- (a) Prodrugs
- (b) Liposomes
- (c) Osmotic pumps
- (d) Nanoparticles

8. Measurement of particle size in pharmaceutical aerosols by

- P. Cascade impactor
- Q. Light scatter decay
- R. Karl Fischer method
- S. IR Spectrophotometry

- (a) P,Q
- (b) Q,R
- (c) R,S
- (d) None of the above

9. Occusert was developed by-----

- (a) Coacervation
- (b) Phase separation
- (c) Emulsification
- (d) Salting out

10. NDA is required when there is-----

- (a) A new chemical entity or API
- (b) Change in dosage form or delivery, change in amount, rate, or route of dosage
- (c) Change in therapeutic use or indication
- (d) All of above

11. An essential ingredient in the general preparation of plant tissue culture media is:

- (a) Auxin or naphthalene acetic acid
- (b) Sucrose or glucose
- (c) Gibberellin G₁, or Gibberellin G₂
- (d) Pyridoxine HCl



25 JUN 2017 7:11

12. Borntager's test is performed for identification of:

- (a) Dlgitoxin
- (b) Reserpine
- (c) Digoxin
- (d) Dianthrone of rhein

13. C3-O-glycoside digitoxin is used for:

- (a) Cardiac tonic
- (b) Hypotensive action
- (c) Precipitating steroids from solution
- (d) Precipitating anthraquinone glycosides

14. Which one of the following is true for alkaloids bases?

- (a) Water solubility and organic solvent insolubility
- (b) Water insolubility and organic solvent insolubility
- (c) Water solubility and organic solvent solubility
- (d) Water isolubility and organic solvent solubility

15. Successive solvent extraction of a crude drug with petroleum ether, benzene, chloroform, ethyl alcohol and water was performed. Qualitative chemical testing of petroleum ether extract gave positive Keller- Killiani and Salkowski's reactions. What constituents are present in the petroleum ether/benzene extract?

- (a) Plant lipids
- (b) Anthraquinone glycosides
- (c) Alkaloids
- (d) Plant phenol and saponins

16. The pungent principle present in ginger is:

- (a) Zingiberone
- (b) Shogaol
- (c) Gingediol
- (d) Gingediol acetate

17. What is the difference between hyoscyamine and atropine?

- (a) Hyoscyamine is epoxide of atropine
- (b) Hyoscyamine is pure optical isomer of atropine
- (c) Atropine is pure optical isomer of atropine
- (d) Hyoscyamine and atropine are distereoisomers



25 JUN 2017

18. Tropane alkaloids are not present in

- (a) *Datura stramonium*
- (b) *Erythroxylum coca*
- (c) *Duboisia myoporoides*
- (d) *Lobelia inflata*

19. Histologically the bark of *Cinnamomum cassia* and *Cinnamomum zeylanicum* differ in one of the following features. Identify that.

- (a) Sclerids
- (b) Phloem fibres
- (c) Pericyclic fibres
- (d) Cortex

20. Atropine synthesis involves a pair of precursors,. Identify the correct pair.

- (a) Ornithine and phenylalanine
- (b) Tyrosine and Tryptophan
- (c) Tryptophan and Dopamine
- (d) Tyrosine and Dopamine

21. Infra- red spectrometry is a convenient method for understanding of:

- (a) Drug receptor interaction
- (b) Functional group identification
- (c) Physico-chemical properties
- (d) Conformational properties

22. A solvent used in NMR studies is:

- (a) Chloroform
- (b) Acetone
- (c) Carbontetrachloride
- (d) Methanol

23. In which order are the various parts of a mass spectrometer found?

- (a) Ionization chamber-sample-magnet-collector-recorder
- (b) Sample-ionization chamber-collector-magnet-recorder
- (c) Ionization chamber-sample-collector-magnet-recorder
- (d) Sample-ionization chamber-magnet-collector-recorder



25 JUN 2017

24. Hyperuricemia is associated with the abnormal metabolism of:

- (a) Pyrimidine
- (b) Purine
- (c) Riboflavin
- (d) Thiamine

25. Erythromycin is an antibiotic. It belongs to the class of-----.

- (a) B-Lactum
- (b) Aminoglycoside
- (c) Macrolide
- (d) Peptide

26. Identify one of the cancer chemotherapeutic agents which is an antimetabolites-----.

- (a) Flurouracil
- (b) Nitrogen mustard
- (c) Cyclophosphamide
- (d) Chlorambucil

27. Nitrazepam can be synthesized from-----.

- (a) 2-Bromo-5-amino benzophenone
- (b) 2-Nitro-2-chloro acetophenone
- (c) 2-Amino-5-nitro cyclohexanone
- (d) 2-Amino-5-nitro benzophenone

28. Testosterone can be commercially synthesized from-----.

- (a) Sarsapogenin
- (b) Mexogenin
- (c) Oubagenin
- (d) Halotensin

29. -----is the organism from which streptomycin is isolated.

- (a) *Streptomyces griseus*
- (b) *Streptomyces fradiae*
- (c) *Streptomyces alboniger*
- (d) *Streptomyces rimosus*



25 JUN 2017

30. Primaquine is synthesized from which of the following starting material?

- (a) Glycerol + 4 methoxy-2-nitroaniline
- (b) Glycerol + 2 methoxy-2-nitroaniine
- (c) Glyceraldehyde + methoxy-2-nitroaniline
- (d) Glycerol + 4 methoxy-3-nitroaniline

31. In order to produce characteristic pharmacological action, a drug must always:

- (a) Reach high blood levels
- (b) Be absorbed from GIT readily
- (c) Achieve adequate concentration at the site of action
- (d) Get excreted unchanged in urine

32. Gray baby syndrome is due to indiscriminate use of-----.

- (a) Streptomycin
- (b) Chloramphenicol
- (c) Penicillin
- (d) Tetracycline

33. Plasmodial resistance of Chloroquine is due to

- (a) Induction of inactivating enzymes
- (b) Change in receptor structure
- (c) Increase in the activity of DNA repair mechanism
- (d) Decreased carrier mediated drug transport

34. Clinically available anticancer agents have one of the underlying mechanism of action, they act by--

- (a) Improve body defence mechanism
- (b) Inhibition of cell wall synthesis
- (c) Receptors site blockade of cancer cell content
- (d) Cell growth inhibitor

35. An angiotensin-II receptor blocker useful in treating hypertension is-----.

- (a) Enalapril
- (b) Valsartan
- (c) Atenolol
- (d) Amlodipine



25 JUN 2017

36. Choose the drug that often causes tachycardia when given in regular doses.

- (a) Verapamil
- (b) Guanethidine
- (c) Propanolol
- (d) Isosorbide dinitrate

37. One of the following is a selective serotonin reuptake inhibitor-----.

- (a) Despiramine
- (b) Fluoxetine
- (c) Bupropion
- (d) Maprotiline

38. Femotidine acts as-----.

- (a) H₁- histamine antagonist
- (b) H₂- histamine antagonist
- (c) Proton pump inhibitor
- (d) H₁- agonist

39. All the following are anabolic androgenic steroids except:

- (a) Testosterone
- (b) Oxymetolone
- (c) Prednisolone
- (d) Cyproterone

40. All of the following antibiotics inhibit protein synthesis except:

- (a) Ampicillin
- (b) Tetracycline
- (c) Erythromycin
- (d) Chloramphenicol

