

Department of Pharmacy

Quaid-i-Azam University Islamabad

Sample Test, PhD Admission

Read each question carefully, for each question, there is ONE answer, circle the appropriate answer for each question.

- 1) **Avoiding 'plagiarism' is known to be law of;**
a) Confidentiality b) copyright c) courtesy d) Avoiding copy and paste
- 2) **Literature review is not usually concerned with helping in:**
a) Subsequent data collection. b) Objective setting. c) Literary appreciation. d) Research instrument design.
- 3) **The long-term administration of a thiazide diuretic may also require the administration of**
a. a) potassium b) sodium c) calcium d) bicarbonate
- 4) **Which of the following compounds does not absorb light in the UV/visible spectrum?**
a. a) Aspirin b) Paracetamol c) Chloral hydrate d) Phenobarbitone
- 5) **Which xenobiotics yield free radicals on metabolic activation?**
a. a) Thalidomide b) Aflatoxin c) Quinones d) Benzopyrene
- 6) **Researchers need to be cautious of some material, particularly material found online. Why?**
a) The authors name often does not appear. b) It is too recent. c) It has been used before.
- 7) **All optically active compounds**
a) Decompose in strong light c) Contain a center or plane of
b) Undergo photochemical asymmetry
reactions d) Contain a double bond
- 8) **Which of the following techniques would be most useful to identify and quantify the presence of a known impurity in a drug substance?**
a) NMR b) MS c) IR d) HPLC
- 9) **To increase the viscosity of liquid, which of the following agents are used**
a. a) PVP b) Methyl Cellulose c) Sodium Carboxy Methyl d) Cellulose e) All the above
- 10) **The antimicrobial action of the cephalosporins can best be explained on the basis of**
a) Competitive antagonism of purine precursors c) inhibition of protein synthesis
b) Stimulation of nucleic acid production d) inhibition of cell wall synthesis
- 11) **Which route of administration would provide the most rapid onset of pharmacological response to morphine?**
a) Oral subcutaneous b) intravenous c) rectal d) intramuscular
- 12) **Which of the following methods generally used for studying solid forms?**
a) DSC b) XRD c) TGA d) All the above
- 13) **In cell membrane the hydrocarbon chains form hydrophilic phase and the polar heads form hydrophobic phase.**
a. a) True b) False
- 14) **The cell membrane is _____**
a) Impermeable b) Semipermeable c) Permeable d) Permeable to only gases
- 15) **Which one of these does not come under a physicochemical property of drug?**
a) Drug solubility b) Disintegration time c) Dissolution rate d) Drug stability
- 16) **Any changes in fraction bioavailable, elimination half-life indicates nonlinearity of that particular drug.**
a) True b) False
- 17) **An example of lubricants will be _____**
a) PVP b) Carbowaxes c) CMC d) Tetracycline
- 18) **Viscous fluids and oils are administered in hard gelatin capsules.**
a) True b) False
- 19) **Which of the following histamine receptor increases the release of gastric acid?**
a) H1 receptor b) H2 receptor c) H3 receptor d) H4 receptor
- 20) **The urinary excretion of the unchanged drug is directly proportional to the plasma concentration of a drug.**
a) True b) False

- 21) _____ act as a carrier of basic and neutrally charged lipophilic compounds.
 a)Albumin b) α -globulin c) β -globulin d)Lipo-globulin
- 22) Like dissolves like best described the _____ :
 a)Conversion of reactants to products b)Lab safety precautions c)Concept of solubility d)Empirical formulas
- 23) Which component of a research publication is written at the end?
 a) Abstract b)Introduction c)Methodology d)Research and discussion
- 24) Journal that follow peer review and possess impact factor are placed in _____ category by HEC.
 a) W b)X c)Y d)Z
- 25) Which of the following is more helpful to search scientific literature in medical field
 a) Google b)Wikipedia c)Google Scholar d)PubMed
- 26) The following software are used to manage bibliography except:
 a)Endnote b)Mendeley c)SPSS d)All of these
- 27) Which of the following condition MUST be met to be considered results significantly different:
 a) $p < 0.5$ b) $p < 0.05$ c) $p > 0.5$ d) $p > 0.05$
- 28) A student's own findings, as obtained from a study, are described in _____ section:
 a) Introduction b)Results c)Discussion d)Conclusion
- 29) A sustained release drug delivery system is expected to follow which of the following kinetic model:
 a) Zero order b)First order c)Pseudo first order d)Second order
- 30) _____ is example of bioassay
 a)Acid Base Titration Assay b)Metabolic Response Assay c)Chromatography Assay d)All of the above
- 31) What is the name of the links between sulfur atoms of two cysteine amino acids?
 a) Disulfide bond b)H bond c)Hydrophobic interaction d)Electrostatic bond
- 32) In vitro determination of bioavailability by dissolution rate is not the best way to determine therapeutic efficacy.
 a)True b) False
- 33) _____ is electrical driving of charged molecules into tissues.
 a)Sonophoresis b)Iontophoresis c)Posintrophoresis d)Electrophoresis
- 34) Which of the following is preferable if a drug "does not possess the correct physicochemical properties"?
 a)Form a prodrug b)Hydration of drug c)Apply ultrasound d)Use a microneedle array
- 35) Rheology is defined as study of
 a)Particle size b)Flow properties c)Complex formation d)Interfacial phenomenon
- 36) The biological half-life of a drug (first order kinetics) is represented by
 a) $1/k$ b) $2.303/k$ c) \log/k d) $0.693/k$
- 37) Which of the following equation is used for predicting the shelf life of drug product?
 a)Michaelis-Menten equation b)Hixon-Crowell equation c)Henderson Hassel balch equation d)Arrhenius-equation
- 38) Which of the following enzyme joins the ends of two strands of nucleic acid?
 a) ligase b)protease c)lipase d)hydrolase
- 39) Which of the following is useful to STIMULATE antibody production?
 a)An adjuvant b)A hapten c)Antiserum d)Purified antigen
- 40) _____ is not a neurotransmitter?
 a)cyclic AMP b)noradrenaline c)dopamine d)acetylcholine