



VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University under section 3 of the UGC Act 1956)

Ph.D Entrance Test – November – 2025

Faculty of Pharmacy

Instructions / Note:

1. Answer all the questions. Each question carries one mark.
2. No negative marks for wrong answers.
3. Read each question carefully and answer in the OMR sheet provided for each question with only blue/ black pen to fill the circles in the OMR Sheet.
4. Question number 1 - 35 questions belong to Research Methodology component and Question number 36-70 questions belong to the subject at PG level
5. Return the question paper along with the OMR sheet.

36. Atropine is classified as a _____
- A. Sympathomimetic
 - B. Parasympatholytic
 - C. Sympatholytic
 - D. Parasympathomimetic
37. Microspheres are primarily used for _____
- A. Immediate release
 - B. Sustained release
 - C. Topical application
 - D. Diagnostic use
38. Preformulation studies include evaluation of _____
- A. Taste
 - B. Color
 - C. Solubility and stability
 - D. Packaging
39. Phenytoin is used as a _____
- A. Hypnotic
 - B. Anticonvulsant
 - C. Analgesic
 - D. Sedative



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40. Pharmacoeconomics primarily evaluates _____
- A. Efficacy
 - B. Cost-effectiveness
 - C. Safety
 - D. Toxicity
41. In poisoning, activated charcoal is used for _____
- A. Increasing absorption
 - B. Reducing absorption
 - C. Enhancing metabolism
 - D. Neutralizing acids
42. Pharmacovigilance deals with _____
- A. Drug discovery
 - B. Adverse drug reactions
 - C. Drug formulation
 - D. Clinical trials
43. Liposomes are examples of _____
- A. Conventional dosage forms
 - B. Targeted drug delivery systems
 - C. Sustained release systems
 - D. Topical formulations
44. TLC separates compounds based on _____
- A. Molecular weight
 - B. Solubility
 - C. Polarity
 - D. Charge
45. Which antihypertensive acts by inhibiting ACE enzyme?
- A. Captopril
 - B. Propranolol
 - C. Amlodipine
 - D. Losartan
46. Soxhlet extraction is used for _____
- A. Water-soluble compounds
 - B. Volatile oils
 - C. Insoluble compounds
 - D. Heat-sensitive materials



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47. The disintegration time test is performed for _____
- A. Capsules and tablets
 - B. Parenteral solutions
 - C. Ointments
 - D. Syrups
48. IR spectrum fingerprint region lies between _____
- A. 4000–2500 cm^{-1}
 - B. 2500–1500 cm^{-1}
 - C. 1500–400 cm^{-1}
 - D. Above 4000 cm^{-1}
49. Which of the following is a glycoside-containing drug?
- A. Digitalis
 - B. Clove
 - C. Ginger
 - D. Peppermint
50. NMR spectroscopy is based on the principle of _____
- A. Molecular absorption
 - B. Nuclear spin resonance
 - C. Fluorescence emission
 - D. Ionic conductivity
51. Loop diuretics like furosemide act on which part of nephron?
- A. Proximal tubule
 - B. Loop of Henle
 - C. Distal tubule
 - D. Collecting duct
52. Crude drugs should be collected during _____
- A. Rainy season
 - B. Flowering stage
 - C. Dormant period
 - D. Any time
53. Drying of crude drugs helps in _____
- A. Enhancing moisture
 - B. Preventing microbial growth
 - C. Increasing enzymatic activity
 - D. Color improvement



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54. Which drug is classified as an antimalarial?
- A. Rifampicin
 - B. Chloroquine
 - C. Isoniazid
 - D. Amphotericin B
55. Therapeutic drug monitoring is essential for _____
- A. Drugs with narrow therapeutic index
 - B. OTC drugs
 - C. Herbal medicines
 - D. Topical creams
56. Pharmacogenomics studies _____
- A. Drug interactions
 - B. Genetic influence on drug response
 - C. Drug cost
 - D. Toxicity
57. Pharmacoepidemiology studies _____
- A. Drug metabolism
 - B. Drug use and effects in populations
 - C. Drug cost analysis
 - D. Toxicity tests
58. Phytochemical screening is used for _____
- A. Identifying plant species
 - B. Detecting chemical constituents
 - C. Sterilizing extracts
 - D. Testing toxicity
59. Isoniazid is primarily used to treat _____
- A. Tuberculosis
 - B. Malaria
 - C. Fungal infection
 - D. Viral infection
60. Diazepam belongs to which class of drugs?
- A. Antipsychotic
 - B. Antidepressant
 - C. Benzodiazepine
 - D. Barbiturate



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61. In UV spectroscopy, Beer-Lambert law relates absorbance to _____
- A. Concentration
 - B. Temperature
 - C. Pressure
 - D. pH
62. Nitroglycerin relieves angina by _____
- A. Increasing heart rate
 - B. Dilating coronary vessels
 - C. Increasing preload
 - D. Blocking calcium channels
63. In IR spectroscopy, which functional group absorbs near 1700 cm^{-1} ?
- A. OH
 - B. C=O
 - C. NH₂
 - D. C=C
64. Which route of drug administration bypasses first-pass metabolism?
- A. Oral
 - B. Intravenous
 - C. Rectal
 - D. Sublingual
65. Alkaloids are extracted using _____
- A. Water
 - B. Alcoholic solvents
 - C. Petroleum ether
 - D. Acids or bases
66. Nanoparticles improve drug delivery by _____
- A. Decreasing bioavailability
 - B. Targeted delivery
 - C. Increasing toxicity
 - D. Reducing solubility
67. Antidote for organophosphate poisoning is _____
- A. Atropine
 - B. Epinephrine
 - C. Naloxone
 - D. Flumazenil



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68. Clonidine acts as a _____
- A. Alpha agonist
 - B. Alpha-2 agonist
 - C. Beta blocker
 - D. Dopamine agonist
69. Beta blockers act primarily on which receptor type?
- A. Alpha
 - B. Beta
 - C. Muscarinic
 - D. Dopaminergic
70. Griseofulvin is used as _____
- A. Antibacterial
 - B. Antifungal
 - C. Antiviral
 - D. Anthelmintic

