

---

**DO NOT OPEN THIS QUESTION BOOKLET UNTIL YOU ARE ASKED TO DO SO**

---

Booklet No.

30505

SAMPLE  
DIRE-2013

QUESTION BOOKLET

Booklet Series



PHARMACOLOGY

Subject Code : 03

Time Allowed : 2 Hours

Maximum Marks : 100

**INSTRUCTIONS FOR CANDIDATES**

1. Immediately after the commencement of the Examination you should check that this Question Booklet **does not have any unprinted or torn or missing pages or items etc.** If so, get it replaced by a complete Question Booklet.
2. You have to enter your Roll Number on the Question Booklet in the Box provided alongside. **DO NOT** write anything else on the Question Booklet. 

--	--	--	--	--	--	--	--	--	--
3. Candidate must fill in the necessary information in the space provided on the supplied OMR (Optical Mark Recognition) Answer Sheet before commencement of the Examination. See directions on the backside of the OMR Answer Sheet.
4. For marking the correct answer, darken **one** circle by **black** or **blue** ballpoint pen only. **Do not mark on more than one circle.** Darkening more than one circle against an answer will be treated as wrong answer.
5. Do not detach any leaf from this Question Booklet. After the Examination, **hand over the OMR Answer Sheet to the Room Invigilator.** You are allowed to take the Question Booklet after the Examination is over.
6. This Booklet contains **100 questions.** Each question carries **1 mark.** There is no negative marking for any wrong answer.
7. Possession and **use of Calculator, Mobile Phone or similar Electronic Devices is prohibited** in the Examination Hall.
8. Candidates are informed that evaluation of the OMR Answer Sheet will be done by Electronic Machine. So, they should shadow the bubbles of Roll No., Centre Code, Subject Code, Booklet Series and Booklet No. properly, otherwise Machine will not be able to evaluate it. Failure to comply this instruction will be the sole responsibility of the candidate.
9. Candidates appearing in the Examination will be allowed to leave the Examination Hall only after completion of the Examination.

---

**DO NOT OPEN THIS QUESTION BOOKLET UNTIL YOU ARE ASKED TO DO SO**

---

SEAL

1. What the body does to the drug is called as
  - (A) Pharmacodynamics
  - (B) Pharmacokinetics
  - (C) Pharmacogenomics
  - (D) Pharmacotherapeutics
2. The science of detection, diagnosis and treatment of poisoning is called as
  - (A) toxicology
  - (B) clinical toxicology
  - (C) toxicodynamics
  - (D) toxicokinetics
3. Nitroglycerine can be administered through the following route of drug administration to avoid its first pass metabolism
  - (A) Oral
  - (B) Rectal
  - (C) Sublingual
  - (D) Inhalation
4. Morphine bioavailability may be increased by its
  - (A) first pass elimination
  - (B) ionization
  - (C) enterohepatic cycling
  - (D) All of the above
5. Digoxin produces cardiac arrhythmias as a cardiac adverse effect which is due to
  - (A) disturbed impulse formation
  - (B) disturbed impulse conduction
  - (C) Both (A) and (B)
  - (D) None of the above
6. The term — is used clinically to describe a medical emergency caused by allergy to a variety of agents.
  - (A) prophylaxis
  - (B) anaphylaxis
  - (C) trauma
  - (D) proteolysis
7. A non-selective  $\beta$ -adrenoceptor antagonist with additional  $\alpha_1$ -blocking activity is
  - (A) carvedilol
  - (B) propranolol
  - (C) atenolol
  - (D) oxprenolol
8. Obesity is measured by BMI (Body Mass Index) and the following is the ideal range of it
  - (A) 25.0–29.9 kg/m<sup>2</sup>
  - (B) 30.0–39.9 kg/m<sup>2</sup>
  - (C) 18.5–24.9 kg/m<sup>2</sup>
  - (D) 18.5–40.0 kg/m<sup>2</sup>

9. GABA<sub>B</sub> subtype receptor belongs to the following receptor type
- (A) Ligand-gated channel
  - (B) Voltage-gated channel
  - (C) Calcium-release channel
  - (D) G-Protein-coupled receptor
10. Which of the following oral hypoglycemic agents will reduce carbohydrate absorption and cause flatulence?
- (A) Tolbutamide
  - (B) Glibenclamide
  - (C) Rosiglitazone
  - (D) Acarbose
11. Ketamine, a non-barbiturate general anaesthetic agent, induces complete analgesia combined with amnesia is called as
- (A) neuroleptanalgesia
  - (B) dissociative anaesthesia
  - (C) infiltration anaesthesia
  - (D) None of the above
12. The antibiotic ciprofloxacin causes
- (A) inhibition of cell wall synthesis
  - (B) leakage of cell membranes
  - (C) inhibition of protein synthesis
  - (D) inhibition of DNA gyrase
13. Chloramphenicol was the drug of choice for typhoid fever, its major adverse effect is
- (A) bone-marrow depression
  - (B) hypersensitivity reactions
  - (C) gray-baby syndrome
  - (D) All of the above
14. In chronic alcoholism, the antagonist used is
- (A) N-acetylcysteine
  - (B) disulfiram
  - (C) aspirin
  - (D) phenobarbitone
15. 'Co-trimoxazole' is the combination of trimethoprim and sulfamethoxazole in the ratio of
- (A) 2 : 3
  - (B) 5 : 1
  - (C) 1 : 5
  - (D) 3 : 2
16. The calcium channel blocker verapamil is a
- (A) class IA antiarrhythmic drug
  - (B) class II antiarrhythmic drug
  - (C) class III antiarrhythmic drug
  - (D) class IV antiarrhythmic drug

17. The drug which will inhibit MAO-B irreversibly and used in Parkinson's disease is
- (A) selegiline
  - (B) bromocriptine
  - (C) pergolide
  - (D) amantadine
18. The relative nephrotoxicity among NSAIDs is
- (A) indomethacin > fenoprofen > ibuprofen
  - (B) fenoprofen > indomethacin > ibuprofen
  - (C) ibuprofen > indomethacin > fenoprofen
  - (D) mefenamic acid > fenoprofen > indomethacin
19. The main adverse effect of angiotensin converting enzyme inhibitor enalapril is
- (A) dry cough
  - (B) bone-marrow depression
  - (C) Both (A) and (B)
  - (D) None of the above
20. Which of the H<sub>2</sub> receptor blockers, used as an anti-ulcer agent, has anti-androgenic action?
- (A) Famotidine
  - (B) Roxatidine
  - (C) Ranitidine
  - (D) Cimetidine
21. Which of the following acts as an agonist on morphine  $\kappa$  receptors and has weak antagonist activity at  $\mu$  and  $\delta$  receptors?
- (A) Buprenorphine
  - (B) Pentazocine
  - (C) Propoxyphene
  - (D) Tramadol
22. A non-cardioselective beta adrenergic blocking agent with beta blocking potency similar to that of propranolol and which has no membrane stabilizing action is
- (A) atenolol
  - (B) esmolol
  - (C) sotalol
  - (D) betaxolol

23. — is a symptom which arises when there is an imbalance between the demand for oxygen and its supply to the myocardium.
- (A) Hypertension  
(B) Angina pectoris  
(C) Neutropenia  
(D) Meningitis
24. Which of the following is a systemic antacid used in alkalosis condition?
- (A) Sodium bicarbonate  
(B) Aluminium hydroxide gel  
(C) Magnesium trisilicate  
(D) Calcium carbonate
25. Plantago seeds which are used in constipation belong to the class
- (A) stimulant laxatives  
(B) osmotic laxatives  
(C) bulk laxatives  
(D) irritant laxatives
26. Sildenafil is used in erectile dysfunction. It is an inhibitor of — enzyme.
- (A) phosphodiesterase 3  
(B) phosphodiesterase 4  
(C) phosphodiesterase 5  
(D) adenylyl cyclase
27. Anti-dopaminergic anti-emetic agent is
- (A) cyclizine  
(B) scopolamine  
(C) metoclopramide  
(D) ondansetron
28. The following is a drug which is an HMG-CoA-reductase inhibitor, used as lipid lowering drug
- (A) Cholestyramine  
(B) Gemfibrozil  
(C) Omega 3-PUFA  
(D) Rosuvastatin
29. — is a chronic disorder characterized by loss of appetite and self-induced weight loss, accompanied by psychological and physiological alterations in the body.
- (A) Pancreatitis  
(B) Anorexia nervosa  
(C) Hepatitis  
(D) Cirrhosis

30. A state in which the kidney's ability to maintain homeostasis has declined suddenly, with resultant retention of metabolic waste products as well as electrolytes, is
- (A) metabolic acidosis
  - (B) metabolic alkalosis
  - (C) acute renal failure
  - (D) hypochloremic alkalosis
31. Treatment of hypoglycemia in unconscious patients can be achieved with
- (A) insulin
  - (B) somatostatin
  - (C) glucagon
  - (D) octreotide
32. Irritable bowel disease (IBS) can be treated with
- (A) prednisolone
  - (B) mesalazine
  - (C) azathioprine
  - (D) All of the above
33. Hyponatremia is a condition caused in the body due to
- (A) high plasma sodium concentration
  - (B) low plasma sodium concentration
  - (C) low plasma nitrogen concentration
  - (D) low plasma potassium concentration
34. Tolvaptan used in the treatment of hyponatremia is an antagonist of
- (A) aldosterone
  - (B)  $\text{Na}^+ / \text{K}^+$  ATPase
  - (C) anti-diuretic hormone
  - (D) carbonic anhydrase
35. Aplastic anemia is caused due to
- (A) derangement of blood cells function
  - (B) increased destruction of blood cells
  - (C) impaired production of blood cells
  - (D) None of the above
36. The common name of pteroylmonoglutamic acid is
- (A) folic acid
  - (B) paraaminobenzoic acid
  - (C) acetylsalicylic acid
  - (D) glutamic acid

37. Among the following, which one is a potent and specific chelator of iron used in the treatment of iron poisoning?
- (A) Desferrioxamine
  - (B) Disulfiram
  - (C) Erythropoietin
  - (D) Ferric gluconate
38. In gastroesophageal reflux disease, which one of the following will be more effective?
- (A) Anti-secretory agent—cimetidine
  - (B) Proton pump inhibitor—omeprazole
  - (C) Mucosal protective agent—sucralfate
  - (D) Prostaglandin E analogue—misoprostol
39. 'Zidovudine' anti-viral agent acts as
- (A) nucleoside reverse transcriptase inhibitor
  - (B) DNA polymerase inhibitor
  - (C) non-nucleoside reverse transcriptase inhibitor
  - (D) protease inhibitor
40. A very insoluble fungistatic drug which can be used in the systemic treatment of dermatophyte infections of the skin and nails is
- (A) amphotericin A
  - (B) fluconazole
  - (C) terbinafine
  - (D) griseofulvin
41. Dose-dependent nephrotoxicity is the major significant toxic reaction for the anti-fungal agent
- (A) flucytosine
  - (B) clotrimazole
  - (C) amphotericin B
  - (D) ketoconazole
42. Which of the following combination of drugs is most active and effective in treating tuberculosis?
- (A) Isoniazid and pyrazinamide
  - (B) Isoniazid and ethambutol
  - (C) Streptomycin and rifampicin
  - (D) Isoniazid and rifampicin

- 43.** Cefotaxime is a cephalosporin belongs to
- (A) first-generation cephalosporins
  - (B) second-generation cephalosporins
  - (C) third-generation cephalosporins
  - (D) fourth-generation cephalosporins
- 44.** Identify the synthetic lipoglycopeptide antibiotic that is effective against methicillin resistant *S. aureus* (MRSA).
- (A) Daptomycin
  - (B) Telavancin
  - (C) Cycloserine
  - (D) Meropenem
- 45.** Gliptins are synthetic blood glucose lowering agents, which are known to inhibit
- (A) GLP-1
  - (B) dipeptidylpeptidase
  - (C) alpha glucosidase
  - (D) PPAR<sub>γ</sub>
- 46.** Any abnormality in glucose levels noted for the first time during pregnancy is called as
- (A) type 1 diabetes mellitus
  - (B) type 2 diabetes mellitus
  - (C) type 3 diabetes mellitus
  - (D) gestational diabetes mellitus
- 47.** Conversion of protein to glucose is called as
- (A) gluconeogenesis
  - (B) glycosuria
  - (C) gluconeogenesis
  - (D) glycogenolysis
- 48.** Propylthiouracil is used in
- (A) hypothyroidism
  - (B) hyperthyroidism
  - (C) cretinism
  - (D) myxedema
- 49.** A loop diuretic can be used in the treatment of
- (A) acute pulmonary oedema
  - (B) chronic heart failure
  - (C) renal failure
  - (D) All of the above



50. An anabolic agent, which increases bone formation, is
- (A) strontium ranelate
  - (B) teriparatide
  - (C) etidronate
  - (D) calcitonin
51. Among the clotting factors, which one is called as Stuart power factor?
- (A) Factor V
  - (B) Factor XI
  - (C) Factor IX
  - (D) Factor X
52. The mechanism of action of digitalis glycosides is inhibition of
- (A) Ca-dependent  $\text{Na}^+/\text{K}^+$  ATPase enzyme activity
  - (B) Mg-dependent  $\text{Na}^+/\text{K}^+$  ATPase enzyme activity
  - (C)  $\text{K}^+$ -dependent  $\text{Na}^+/\text{K}^+$  ATPase enzyme activity
  - (D)  $\text{Na}^+$ -dependent  $\text{Na}^+/\text{K}^+$  ATPase enzyme activity
53. Edrophonium, which is an important agent, is used in the diagnosis of myasthenia gravis. This drug is
- (A) a short-acting cholinesterase inhibitor
  - (B) an ultra-short-acting cholinesterase inhibitor
  - (C) a long-acting cholinesterase inhibitor
  - (D) a non-cholinesterase inhibitor
54. The triad of coma, pinpoint pupils and depressed respiration are the symptoms and signs of
- (A) acute opioid poisoning
  - (B) organophosphorus poisoning
  - (C) benzodiazepine poisoning
  - (D) None of the above
55. Identify the opioid antagonist.
- (A) Tapentadol
  - (B) Hydrocodone
  - (C) Naltrexone
  - (D) Meperidine
56. The drug of choice for the treatment of absence seizures is
- (A) ethosuximide
  - (B) valproic acid
  - (C) phenytoin
  - (D) phenobarbitone

57. An anti-histamine that exhibits a mild CNS-depressant action and has wider margin of safety, also used in psychoneurotic states, is
- (A) chlorpromazine
  - (B) hydroxyzine
  - (C) cetirizine
  - (D) chlorpheniramine maleate
58. Which of the following drugs is an odourless gas used as anaesthetic agent?
- (A) Nitric oxide
  - (B) Nitrous oxide
  - (C) Thiopental
  - (D) Propofol
59. — is a disease which is an inherited disorder resulting in progressive brain degeneration, starting in adulthood and causing rapid deterioration and death.
- (A) Parkinson's disease
  - (B) Huntington's disease
  - (C) Alzheimer's disease
  - (D) Ischaemic brain disease
60. Among the following, which drug is not suitable for the treatment of Parkinson's disease?
- (A) MAO-B inhibitor
  - (B) Drug that releases dopamine
  - (C) Cholinesterase inhibitor
  - (D) Muscarinic acetylcholine receptor antagonist
61. The route of administration used to administer diazepam to children who are in status epilepticus, in whom it is difficult to establish intravenous access, is
- (A) sublingual route
  - (B) rectal route
  - (C) oral route
  - (D) inhalational route
62. — is a special type of bioassay done to compare the clinical efficacy of a new drug or procedure with that of a known drug or procedure (or a placebo).
- (A) Graded bioassay
  - (B) Quantal bioassay
  - (C) Clinical trial
  - (D) None of the above
63. A cell suicide by a built-in self-destruct mechanism consisting of a genetically programmed sequence of biochemical events is called as
- (A) angiogenesis
  - (B) apoptosis
  - (C) necrosis
  - (D) None of the above

64. Many diuretics predispose to digoxin toxicity due to
- (A) lower plasma  $K^+$  levels
  - (B) lower plasma  $Na^+$  levels
  - (C) lower plasma  $Ca^{+2}$  levels
  - (D) lower plasma  $Mg^{+2}$  levels
65. Aminoglycoside's main adverse drug reaction is
- (A) hepatotoxicity
  - (B) tinnitus
  - (C) teratogenicity
  - (D) ototoxicity
66. Platelet anti-aggregatory action is produced by aspirin, but not to a significant extent by other salicylates. This is due to its
- (A) amino group
  - (B) acetyl group
  - (C) nitro group
  - (D) None of the above
67. Fludrocortisone is used in the treatment of
- (A) Addison's disease
  - (B) peptic ulcer disease
  - (C) tuberculosis
  - (D) diabetes mellitus
68. Which of the following causes drug-induced hyperglycemia?
- (A) Disopyramide
  - (B) Alcohol
  - (C) Phenytoin
  - (D) Pentamidine
69. A serious complication of long standing untreated hypothyroidism is
- (A) myxedema coma
  - (B) endemic goitre
  - (C) dwarfism
  - (D) thyroid carcinoma
70. From the following drugs, which one is most effective in treatment of breast cancer?
- (A) Flutamide
  - (B) Progestin
  - (C) Tamoxifen
  - (D) Baclofen
71. An antibiotic with anti-cancer properties is
- (A) doxorubicin
  - (B) azithromycin
  - (C) erythromycin
  - (D) clarithromycin

- 72.** The folic acid antagonistic, anti-cancer agent which is also used in rheumatoid arthritis is
- (A) azathioprine
  - (B) busulfan
  - (C) methotrexate
  - (D) fluorouracil
- 73.** Filarial infections caused by parasites that lead to elephantiasis are treated with
- (A) albendazole and mebendazole
  - (B) diethylcarbamazine and ivermectin
  - (C) albendazole and ivermectin
  - (D) ivermectin and mebendazole
- 74.** The drug of choice in round-worm infections that is widely used as a single dose deworming agent is
- (A) mebendazole
  - (B) albendazole
  - (C) ivermectin
  - (D) praziquantel
- 75.** An anthelmintic agent which affects the worm in such a way that it is easily expelled from the body is known as
- (A) fungicidal
  - (B) fungistatic
  - (C) vermifuge
  - (D) vermucidal
- 76.** A specific cellular glycoproteins, produced naturally by virus-infected cells, and have anti-viral actions. They are known as
- (A) prostaglandins
  - (B) leucocytes
  - (C) gamma globulins
  - (D) interferons
- 77.** Identify the teratogenic drug.
- (A) Gentamicin
  - (B) Etretinate
  - (C) Chloramphenicol
  - (D) Methyldopa
- 78.** Drug miltefosine is highly effective in the treatment of
- (A) tuberculosis
  - (B) leishmaniasis
  - (C) leprosy
  - (D) AIDS
- 79.** The triple response observed upon intradermal injection is the characteristic nature of
- (A) histamine
  - (B) dopamine
  - (C) adrenaline
  - (D) ketamine

- 80.** Catecholamines are synthesized from the amino acid
- (A) cystine
  - (B) phenylalanine
  - (C) proline
  - (D) glycine
- 81.** A muscarinic blocker used as a bronchodilator is
- (A) tolterodine
  - (B) scopolamine
  - (C) ipratropium
  - (D) cyclopentolate
- 82.** A diuretic agent widely used in closed angle glaucoma is
- (A) acetazolamide
  - (B) furosemide
  - (C) chlorothiazide
  - (D) spironolactone
- 83.** A  $\beta_1$ -selective blocker which is having less bronchopulmonary and cardiac side effects, also used in glaucoma, is
- (A) timolol
  - (B) propranolol
  - (C) betaxolol
  - (D) esmolol
- 84.** Myasthenia gravis is an auto-immune disorder, caused due to development of antibodies which are known to destroy the
- (A) muscarinic receptors
  - (B) nicotinic receptors
  - (C) Both (A) and (B)
  - (D) None of the above
- 85.** The process of a tissue-damaging immune response directed specifically and inappropriately against one or more self-antigen(s) is/are called as
- (A) immunity
  - (B) autoimmunity
  - (C) tachyphylaxis
  - (D) prophylaxis
- 86.** Penicillin half-life can be increased by decreasing the rate of excretion (by active tubular secretion), using a weak acidic agent
- (A) paraaminohippurate
  - (B) paraaminobenzoic acid
  - (C) probenecid
  - (D) acetylsalicylic acid

87. The primary hormone responsible for controlling breast milk production is prolactin and the drug that decreases serum prolactin level is
- (A) metoclopramide
  - (B) sulpiride
  - (C) bromocriptine
  - (D) haloperidol
88. Binding to the peroxisome proliferator-activated receptor  $\gamma$  in muscle, fat and liver to decrease insulin resistance is the main mechanism of action of
- (A) acarbose
  - (B) metformin
  - (C) glimepiride
  - (D) rosiglitazone
89. Emesis associated with cancer is treated with
- (A) granisetron
  - (B) ondansetron
  - (C) metoclopramide
  - (D) All of the above
90. Aztreonam is a
- (A) carbapenem
  - (B) monobactam
  - (C) macrolide
  - (D) ketolide
91. Drug that used to treat migraine headache is
- (A) sumatriptan
  - (B) misoprostol
  - (C) cyclizine
  - (D) doxepin
92. The antidotes for organophosphate poisoning are
- (A) atropine and pralidoxime
  - (B) atropine and physostigmine
  - (C) atropine and *N*-acetylcysteine
  - (D) atropine and dimercaprol
93. The main mechanism of action of lamivudine is
- (A) inhibition of viral DNA polymerase
  - (B) inhibition of viral neuraminidase
  - (C) inhibition of viral DNA polymerase and reverse transcriptase
  - (D) interference with viral protease

94. Among the following, which one is immunosuppressive anti-metabolite?
- (A) Cyclosporin
  - (B) Azathioprine
  - (C) Prednisolone
  - (D) Tacrolimus
95. A  $\text{PGF}_{2\alpha}$  analogue used in the treatment of elevated intra-ocular pressure is
- (A) iloprost
  - (B) alprostadiol
  - (C) latanoprost
  - (D) misoprostol
96. Acetaminophen has less or weak anti-inflammatory activity which is due to
- (A) less effect on prostaglandins
  - (B) less effect on cyclooxygenase
  - (C) less effect on pain receptors
  - (D) less effect on cytokines
97. The specific antidote for paracetamol poisoning is
- (A) flumazenil
  - (B) misoprostol
  - (C) N-acetylcysteine
  - (D) physostigmine
98. An angiotensin receptor blocker is
- (A) captopril
  - (B) ramipril
  - (C) telmisartan
  - (D) minoxidil
99. Among the following drugs, which one belongs to class III,  $\text{K}^+$  channel blocking anti-arrhythmic agents?
- (A) Diltiazem
  - (B) Verapamil
  - (C) Amiodarone
  - (D) Propranolol
100. An aldosterone antagonist used in heart failure and Conn's syndrome is
- (A) diazoxide
  - (B) bumetanide
  - (C) eplerenone
  - (D) furosemide

**SPACE FOR ROUGH WORK**

SEAL

ThePharmapedia.com

/23-A

\*\*\*

16

49R5-BOAC  
Y13-650