

SYLLABUS FOR COMPUTER BASED RECRUITMENT TEST (CBRT)
FOR THE POST OF ASSISTANT PROFESSOR IN PHARMACOLOGY

IN
GOA COLLEGE OF PHARMACY
(ADVT. NO. 07 YEAR 2021)

- I. General English including Grammar - 05 marks**
- II. General Knowledge, Current Affairs and Events of National and International Importance - 10 marks**
- III. Logical Reasoning and Analytical Ability - 10 marks**
- IV. Core: - 50 marks**

1.a. Introduction to Pharmacology- Definition, historical landmarks and scope of pharmacology, nature and source of drugs, essential drugs concept and routes of drug administration, Agonists, antagonists(competitive and non competitive), spare receptors, addiction, tolerance, dependence, tachyphylaxis, idiosyncrasy, allergy.

b. Pharmacokinetics- Membrane transport, absorption, distribution, metabolism and excretion of drugs .Enzyme induction, enzyme inhibition, kinetics of elimination

2. a. Pharmacodynamics- Principles and mechanisms of drug action. Receptor theories and classification of receptors, regulation of receptors. drug receptors interactions signal transduction mechanisms, G-protein–coupled receptors, ion channel receptor, transmembrane enzyme linked receptors, transmembrane JAK-STAT binding receptor and receptors that regulate transcription factors, dose response relationship, therapeutic index, combined effects of drugs and factors modifying drug action.

b. Adverse drug reactions.

c. Drug interactions (pharmacokinetic and pharmacodynamic)

d. Drug discovery and clinical evaluation of new drugs -Drug discovery phase, preclinical evaluation phase, clinical trial phase, phases of clinical trials and pharmacovigilance.

3. A detailed study of Pharmacology of the following

- Peripheral nervous system
- Pharmacology of central nervous system
- Pharmacology of drugs acting on cardio vascular system
- Pharmacology of drugs acting on urinary system
- Autocoids and related drugs
- Pharmacology of drugs acting on endocrine system
- Pharmacology of drugs acting on endocrine system
- Bioassay Principles and applications of bioassay. Types of bioassay Bioassay of insulin, oxytocin, vasopressin, ACTH,d-tubocurarine,digitalis, histamine and 5-HT
- Pharmacology of drugs acting on Respiratory system
- Pharmacology of drugs acting on the Gastrointestinal Tract
- Chemotherapy

- Immunopharmacology
- Principles of toxicology
- Chronopharmacology
- Basic principles of Cell injury and Adaptation
- Basic mechanism involved in the process of inflammation and repair
- Cardiovascular System
- Respiratory system
- Renal system
- Haematological Diseases
- Endocrine system
- Gastrointestinal system
- Disease of bones and joints
- Principles of cancer
- Infectious diseases: Meningitis, Typhoid, Leprosy, Tuberculosis
Urinary tract infections
- Sexually transmitted diseases: AIDS, Syphilis, Gonorrhoea

Note:

Duration for C.B.R.T : 90 Minutes

Maximum Marks for C.B.R.T : 75 Marks

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