

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER
Syllabus for Screening Test for the post of
Sr. Demonstrator-Biochemistry
Medical & Health Department

1. Cell : Structure, organelles, bio-molecules & functions.
2. Chemistry, metabolism & Inborn errors of :
 - (a) Carbohydrates
 - (b) Lipids
 - (c) Amino Acid & Proteins
 - (d) Nucleotides
3. Bio-energetics & oxidative phosphorylation
4. Enzymes
5. Vitamins
6. Mineral Metabolism
7. Metabolism of xenobiotics
8. Acid-base balance & pH
9. Electrolyte & water balance
10. Organ function tests : Liver, Kidney, thyroid, pancreas
11. Heme synthesis & Breakdown
12. Nutrition & diet
13. Hormones
14. Free radicals & Antioxidants
15. Environmental Biochemistry
16. Immunochemistry : Humoral & cell mediated immunity, classification of immunoglobulins, Antibody diversity & class-switching, MHC Proteins, immunization, complements system, auto-immune diseases, immunodeficiency, allergy.
17. Molecular biology, techniques, genetics :
 - DNA replication, repair
 - Transcription & Translation
 - Regulation of gene expression
 - Molecular biology techniques-PCR, Southern, northern, western blot, DNA sequencing, RFLP, Hybridoma technology, Human genome Project
18. Biochemistry of Cancer & AIDS
19. Applications of Isotopes in Medicine.
20. Tissues proteins in Health and Disease.

Note :- Pattern of Question Paper

1. Objective type paper
2. Maximum Marks :100
3. Number of Questions :100
4. Duration of Paper : Two Hours
5. All questions carry equal marks.
6. There will be Negative marking.

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