

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS OF SCREENING TEST FOR THE POST OF

BIOCHEMIST, MEDICAL EDUCATION DEPARTMENT

1. Basic Laboratory Procedures:

- Disinfection, Laboratory safety, first aid.
- Biochemical samples and their collection, preservatives, anticoagulants.
- Preparation of solutions and reagents.
- Laboratory reporting systems, biological variations, chemical interference, Normal/reference range.
- Expression of results of biochemical investigations-various units.
- Quality management of laboratory- standardization and calibration.
- Biomedical waste disposal.
- Laboratory record keeping, Accreditation.

2. Biochemical Instruments/Technique:

Colorimetry, Spectrophotometry, Fluorometry, Chromatography, Electrophoresis, Densitometer, Flame photometry, Electrolyte analyser, Blood gas analyser, Atomic absorption spectroscopy, RIA, ELISA, Gamma counter, Chemiluminescence assay, Water purification systems, Semi autoanalyser, Fully autoanalyser, PCR, HPLC, Blotting technique.

3. Estimation of various biochemical parameters.

4. Organ function tests: Liver, kidney, thyroid, pancreas, adrenocortical.

5. Chemistry, metabolism & Inborn errors of:

- (a) Carbohydrates
- (b) Lipids
- (c) Amino Acid & Proteins
- (d) Nucleotides

6. Enzymes

7. Vitamins

8. Mineral Metabolism and abnormalities

9. Acid-base balance & pH

10. Electrolyte and water balance.

11. Heme synthesis & Breakdown
12. Energy metabolism & Nutrition
13. Hormones
14. Environmental Biochemistry
15. Immunochemistry
16. Biochemistry of Cancer
17. Biochemistry of HIV & AIDS

* * * * *

Pattern of Question Papers:

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

* * * * *