

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS OF SCREENING TEST FOR THE POST OF ASSISTANT PROFESSOR – MEDICAL ONCOLOGY MEDICAL & HEALTH (C.B.) DEPARTMENT

Part – I (Basic Science in Oncology)

- 1 Cell cycle
- 2 Pathology, Invasion & Metastasis
- 3 Etiology of Cancer
 - A Viral
 - B Chemotherapy
 - C Physical
 - D Hormonal
 - E Epidemiology of Cancer
 - F Non Specific
- 4 Epidemiology of Cancer
- 5 Principles of Cancer Management – Surgical Oncology, Radiation Therapy, Chemotherapy, Biological Therapy, etc.
- 6 Pharmacology of Cancer Chemotherapy
- 7 Cancer prevention : - Tobacco related cancer, Diet & Risk reduction Chemo Preventive Agents, Hormones, etc.
- 8 Cancer Screening.
- 9 Imaging Techniques and Investigations of Cancer Diagnosis and Management.
- 10 Specialized Techniques of Cancer Diagnosis and Management.
- 11 Vascular Access and Specialized Technique of Drug Delivery.

Part – II Clinical Oncology (Medical)

- 1 Cancer of Head and Neck.
- 2 Cancer of Lung and Mediastinum.
- 3 Cancer of Gastro Intestinal Track.
- 4 Cancer of Genito Urinary System.
- 5 Cancer of the Breast.
- 6 Cancer of Endocrine System.
- 7 Sarcomas of Soft Tissues and Bones.
- 8 Benign & Malignant Mesotheliomas.
- 9 Cancer of Skin.
- 10 Malignant Melanoma.
- 11 Neoplasm's of C.N.S.
- 12 Cancers of Childhood (Paediatric Cancers).
- 13 Lymphomas
- 14 Leukemia's and other Hematological Malignancies.

- 15 Paraneoplastic Syndromes.
- 16 Cancers of unknown primary site.
- 17 A.I.D.S.-related malignancies.
- 18 Oncological Emergencies.
- 19 Treatment of Metastatic Cancers.
- 20 Gynecological Cancers.

Part – III High Dose Chemotherapy & Transplantation :

- 1 Donor selection H.L.A. typing and M.L.R. in bone marrow transplantation, screening of Donor.
- 2 Conditioning regimens, principles of their use in different disorders and complications.
- 3 Harvesting and manipulation of the bone marrow.
Bone marrow collection, red cell or plasma reduction, peripheral blood stem cell mobilization and collection, cryopreservation, Transfusion of marrow. Purging of marrow – T Cell Depletion.
- 4 Transplantation immunology, Histocompatibility, graft versus host disease – diagnosis and management, Immune reconstitution following transplantation.
- 5 Management of post transplant patient.

Part – IV (Recent Advances in Oncology)

- 1 Essentials of Molecular Biology.
- 2 Molecular Biology of Cancer : Oncogenes Cytogenetic.
- 3 Bone Marrow dysfunction in cancer patient.
- 4 Infections in cancer Patients and neutropenic patients.
- 5 Adverse effects of treatment.
- 6 Supportive Care and Quality of Life.
- 7 Radiofrequency ablation.
- 8 Cancer Immunotherapy.
- 9 Targeted Therapy.

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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

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