

# **JAMMU AND KASHMIR PUBLIC SERVICE COMMISSION** Resham Ghar Colony, Bakshi Nagar, Jammu-180001

**Subject**: Syllabus for the written test for the post of Medical Officer in Health & Family Welfare Department.

## Notice Dated: 24.04.2016

In continuation to notification no. 08-PSC (DR-P) of 2016 dated:19.03.2016 whereunder posts of Medical Officer in Health & Family Welfare Department were advertised for inviting applications through online mode, the Commission hereby notifies the syllabus for the said posts for the purpose of the written examination(MCQ type);-

# **Syllabus for Medical Officer**

## **1. General Surgery Including Orthopaedics:**

- 1. Wound healing
- 2. Fluid and electrolytes
- 3. Nutritional Support
- 4. Wound infection, special infections, AIDs
- 5. Sterilization, methods and precautions
- 6. Transplantation
- 7. Tumors
- 8. Skin diseases and Plastic surgery. Burns.
- 9. Arterial disorders and venous disorders, Lymphatics
- 10. Accident and emergency Surgery
- 11. Cleft lip and palate
- 12. Disorders of salivary gland
- 13. Sutures
- 14. Thyroid
- 15. Parathyroid and Adernal glands
- 16. Breast
- 17. Thorax Injureis and diseases of Lung, Diaphregm
- 18. Heart
- 19. Liver
- 20. Spleen
- 21. Gall bladder and Bileducts
- 22. Pancreas
- 23. Peritoneum, Omentum, Mesentry and Retroperitoneal spaces.
- 24. Small and large intestine
- 25. Intestinal obstruction
- 26. Appendix
- 27. Rectum
- 28. Anus and Anal Canal
- 29. Hernias
- 30. Urology
- 31. Fractures
- 32. Tumors of Bone, Benign and Malignant
- 33. Metabolic and Non infection disorders of bones and joints.
- 34. Infection of Joints, Pyogoenic, Tuberculosis

35. Injuries of spine and pelvis & their management.

## 2. Medicine:

1.

- 1. Cardinal manifestations and presentation of diseases.
- 2. Genetics.
- 3. Nutritional diseases
- 4. Hematology
- 5. Infectious diseases
- 6. Disease of Cardio Vascular system
- 7. Diseases of Respiratory system
- 8. Diseases of Kidney and Urinary tract
- 9. Diseases of Gastro Intestinal system.
- 10. Diseases of Immune system, connective tissue and joints
- 11. Endocrinology & Metabolism.
- 12. Neurologic disorders.
- 13. Environment and occupational hazards.

## 3. Obstetrics And Gynaecology:

- Introduction to Obstetrics
- 2. Development of human placenta and embryo, anomalies of placenta and coord.
- 3. Formation of liquor amni and its circulation.
- 4. Anatatomical and physiological changes during pregnancy.
- 5. Diagnosis of pregnancy
- 6. Methods of Obsterical and Pelvic examination and special investigations.
- 7. Role of USG and Radiology in Obstetrics.
- 8. Antenatal care including use of drugs during pregnancy.
- 9. Antepartum, foetal surveillance in high risk pregnancies.
- 10. Social Obstetrics
- 11. Anemia in pregnancy
- 12. Heart diseases in pregnancy.
- 13. Diabetes, prediabetic state, glycoosuria in pregnancy
- 14. Respiratory diseases in pregnancy.
- 15. Psychiatric disorders in pregnancy and purperium
- 16. Jaundice in pregnancy
- 17. Skin diseases in pregnancy
- 18. Urinary Tract infection in pregnancy including Asymptomaticbacteruria, chronic renal infection in pregnancy, renal failure in pregnancy.
- 19. Hypertensive disorders in pregnancy.
- 20. APH-plalcentaprevia accidental haemorrhage and extra placental causeshypofibrinogenemis, diagnosis and management, DUC annuria.
- 21. Rh factor Pathology Rh testing and management of pregnancy and new born.
- 22. Multiple pregnancy
- 23. Postmaturity
- 24. Intrauterine growth retardation
- 25. Intrauterine death.
- 26. Recurrent pregnancy wastages
- 27. Surgical Gynecological conditions with pregnancy
- 28. Abnormal position and presentations
- 29. Special cases
- 30. Normal Labour
- 31. Preterm Labour
- 32. Abnormal Uterine action
- 33. Prolonged labour
- 34. Normal Pelvis and foetal skull
- 35. Contracted Pelvis, CPD, Pelvic assessment
- 36. Obstructed Labour
- 37. Injuries of Genital Tract
- 38. Injury of the Urinary System
- 39. Obstetrical Palsy
- 40. Postpartum Collapse.
- 41. Normal Pueperium
- 42. Puerperal infection
- 43. Neonatology

- 44. Obstetrical procedure.
- 45. Anatomy of Uro Genital tract
- 46. Development of Urogenitaltract.
- 47. Physiology of Menstruation, ovulation and Normal Contro.
- 48. Gynaecological History taking, examination and investigation.
- 49. Sex differentiation, asexuality & Intersexuality.
- 50. Amenorrhoea causes, Diagnosis and Management.
- 51. Infertility Male & Female causes, Diagnosis with investigation and management with newer modalities.
- 52. Dysmenorrhoea
- 53. Abnormal uterine bleeding
- 54. Abortions.
- 55. Trophoblastic tumors
- 56. Ectopic pregnancy
- 57. Infections of Genital tract.
- 58. Genital prolapse Retroversion
- 59. Urinary Incontinence
- 60. Rectal inconteinence
- 61. Endommetrioosis and Adenornysis.
- 62. Benign conditions and benign tumors.
- 63. Pruritis
- 64. Chronic Vulval Dystrophies
- 65. Tumors of Uterus
- 66. Ovarian Tumors
- 67. Genital Cancers
- 68. Menopause
- 69. Role of USG & Radiology in Gynae
- 70. Preoperative and postoperative management & complications of major Gynae surgery.
- 71. Gynaecological surgery
- 72. MTP  $1^{st}$  and  $2^{nd}$  Trimester
- 73. Contraceptions including Voluntary surgical contraception.
- 74. Demography

## 4. Pediatrics:

- 1. Basic sciences as applied to paediatrics
- 2. Growth and development.
- 3. Adolescence
- 4. Clinical biostatistics
- 5. Community paediatrics, including National Programmes.
- 6. Immunization
- 7. Nutritional requirements and nutritional disorders.
- 8. Infectious disease, including parasitic infestations
- 9. Infections- Respiratory, G.I, CNS, Genito-Urinary, Hematopoietic infections in neonates, infants, children and adolescents.
- 10. Systemic diseases.
- 11. Neonatology including antenatal paediatrics.

## 5. Preventive and Social Medicine:

- 1. History of Preventive and Social Medicine.
- 2. Concepts of Health and Diseases.
- 3. Nutrition and Health
- 4. Social Science and Health
- 5. Environment & Health
- 6. Occupational Health
- 7. Genetics and Health
- 8. Public Health Administration
- 9. Demography and Family Planning
- 10. Maternal and Child Health
- 11. Immunity and Immunization
- 12. Epidemiology of communicable and non-communicable diseases.
- 13. National Control/Eradication programmes relevant to specific diseases.
- 14. Health Information systems for the routine and vital health statistics
- 15. Primary Health care-Principles, components and levels of practice in the health care

- infrastructure.
- 16. Health Education
- 17. International Health.

## 6. Forensic Medicine & Texicology:

- 1. Medicolegal examination of injured person
- 2. Medicolegal examination of Rape victim
- 3. Medicolegal examination of Sodomy
- 4. Examination of accused of Rape
- 5. Medicolegal Examination of Intoxicated person
- 6. Procedure for conducting Medicolegal Post-mortem
- 7. Essential requirements for conduct of Medicolegal Post-mortem
- 8. Autopsy of Foctus
- 9. To calculate time since death on post-mortem
- 10. Examination of Skeletal remains
- 11. Technique of Viscera Preservation on post-mortem examination
- 12. Exhumation & Post-mortem
- 13. Medicolegal duties of Doctor in Poisoned Patients
- 14. Duties of a R.M.P
- 15. Procedure of recording Evidence
- 16. Recording of Firearm injuries
- 17. Forensic Science Laboratory
- 18. Post-mortem in case of Hanging and strangulation
- 19. Age Certification
- 20. Medical Jurisprudence
- 21. Forensic psychiatry
- 22. Thanatology
- 23. Deliriant poisons
- 24. Fire arm & bomb blast injury

#### 7. Anatomy:

- a. Cardiovascular system and lymphatic system-Blood supply of heart +lymphatic drainage of heart
- b. Thoracic outlet syndrome
- c. Abdominal quadrants
- d. Vermiform appendix-Positions of appendix
- e. Difference between male and female pelvis
- f. Layers of Scalp
- g. Triangles of neck, contents of anterior triangle
- h. Paranasal sinuses with applied anatomy
- i. Cartilages of larynx
- j. Names of Cranial Nerves
- k. Pharyngal arches
- l. History of cardiac muscles
- m. Difference between thick and thin Skin
- n. Annual pancreas

#### 8. Physiology:

#### **Nerve Muscles**

- a. Neuromuscular transmission
- b. Muscle proteins(Biochemistry)
- c. Excitation-Contraction coupling

#### Blood

- a. Anemia
- b. Hemostatis
- **Respiratory System**
- a. <u>Mechanics of respiration-I</u>
- b. <u>Mechanics of respiration-II</u>

## **Cardiovascular System**

- a. ECG
- b. Exercise physiology
- c. Cardiovascular reflexes
- d. Special features of circulation in skeletal muscles and skin

#### **Gastrointestinal System**

- a. Introduction of G.I. Physiology: General organization of G.I. tract
- b. Pathophysiology of diarrheal disease

## Nutrition

- a. Diet during pregnancy and lactation
- b. Diet during infancy and childhood

## **Environmental Physiology**

- a. Man in cold environment
- b. Man in hot environment

## Reproduction

**a.** Introduction to reproductive system

#### Kidney

- a. Renal Tubular function-I
- b. Renal tubular function-II
- c. Micturition

## General

- a. CSF
- b. Physiology of pain
- c. Brain stem reflexs, stretch reflexes and tendon reflexes
- d. Basal ganglia
- e. Speech
- f. Functional anatomy of eye
- g. Functional anatomy of ear: impedance matching
- h. Auditory pathway
- i. Olfaction
- j. Physiology of taste

## 9.Biochemistry:

## a. Molecular Biology-its role in Clinical Biochemistry

Structure, biochemical role of DNA and RNA, Genomes, Basic concepts of DNA & RNA metabolism Replication, Transcription and Translation-importance of their inhibitors, Recombinant DNA technology and polymerase chain reaction-their role in medicine, Gene therapy, Genomics and Bioinformatics, their relevance to medicine.

#### b. Biochemical basis of Hormone action

Communication among cells and tissues, Molecular mechanism of action of Steroid hormones, hormones of pancreas, thyroid and parathyroid, Signal transduction, G-Proteins coupled receptors and second messengers, Role of leptins and adipocytokines.

#### c. Clinical Biochemistry

Organ function tests: Liver function tests, Kidney function tests, Thyroid function tests, Adrenal and Pancreatic function tests, Tumor markers and growth factors, Biochemical changes in pregnancy and lactation, Water and electrolytes balance and imbalance, Acid-base balance and disorders. Total Quality Management of Laboratories, Internal quality control, External quality control, Accreditation of laboratories.

## **10. Microbiology:**

#### a. General Bacteriology

- i. Sterilization/disinfection
- ii. Culture media
- iii. Antimicrobial sensitivity
- iv. Bacterial genetics

#### b. System Bacteriology

- i. Gram positive bacteria
- ii. Gram Negative bacteria
- iii. Mycobacteria

#### c. Immunology

- i. Innate and Adaptive immune responses
- ii. Hypersensitivity
- iii. Autoimmunity

#### d. Virology

- i. DNA/RNA viruses
- ii. HIV
- iii. Herpes viruses

## **11. Pharmacology:**

- i. General Pharmacology
- ii. Autonomic nervous system
- iii. Cardiovascular system
- iv. Central Nervous
- v. Antibiotics and chemotherapy

## 12. ENT:

- 1. Complications of Otitis media
- 2. Otosclerosis and tympanoplasty
- 3. BERA
- 4. Acoustic neuroma (tumors of ear)
- 5. FESS/ESS
- 6. Neurological affections of larynx
- 7. Hoarseness and tumors
- 8. Tracheostomy
- 9. Diseases and tumors of thyroid
- 10. ENT manifestation of AIDS

## 13. Ophthalmology:

## 1 <u>Lids:</u>

- I. Entropeon II. Ectropeon
- III. Ptosis

## 2.Cornea

- I. Corneal ulcer
- II. Keretoconus
- III. Lasik laser

## 3. Lens

- I. Senile cataract
- II. Subluxlated lens
- III. Multifocal iol

## 4. Retina

- I. Diabetic Retinopathy
- II. Macular hole
- III. Retinal detachment

## 5. Optic nerve

- I. Optic atrophy
- II. Pappiliedema
- III. Dilated pupil

#### 14. Radiology:

- I. Radiation Protection and hazards
- II. Basics of x-ray, ultrasound, CT and MRI
- III. Basics of PET & SPECT
- IV. Clinical indications/contraindications of CT, MRI and PET
- V. Contrast media and their adverse reactions and their management
- VI. Radiological investigations like IVP, HSG, Barium studies
- VII. Ultrasonography and Doppler.

Sd/-

## (Shakeel Ul Rehman) Secretary & Controller of Examinations Dated:24.04.2016

No: PSC/DR/MO/H&ME/ 2016