



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Indicative Syllabus And Scheme Of Examination For The Position Of Duty Medical Officer(Contractual)

Ref No: Advertisement No. IITH/CS/56, Date: 27-08-2026

1. Written Examination

- Format: Multiple Choice Questions (MCQs)
- Total Marks: 100 marks (2 marks per question), Negative Marking: 1 mark per wrong answer
- Technical 70 Marks, General Aptitude and English 30 Marks.
- Duration: 60 minutes
- Pass Mark: 40% (40 marks out of 100)
- Requirement: Candidates must score at least 40% in the written examination to qualify for the **Interview**.

2. Interview

- Interview: Total: 100 marks

3. Final Selection

- The final selection is based entirely on the Combined Score 40% of Written Examination and 60% of Interview.

Syllabus for the written examination

1. General Medicine

- Hypertension and hypertensive emergencies
- Diabetes mellitus and complications
- Thyroid disorders
- Anemia
- Fever and common infections
- Dengue, malaria, typhoid
- Tuberculosis
- HIV – basics
- Electrolyte disorders
- Acute kidney injury and CKD
- Liver disease and jaundice

- xii) GERD, gastritis and peptic ulcer disease
- xiii) Acute abdomen
- xiv) Rheumatological disorders – basics
- xv) Common neurological disorders

2. Emergency Medicine & Critical Care

- i) BLS and ACLS
- ii) Adult and paediatric CPR
- iii) Airway management
- iv) Shock and sepsis
- v) Anaphylaxis
- vi) Acute coronary syndrome
- vii) Arrhythmias
- viii) Acute heart failure
- ix) Acute pulmonary edema
- x) Stroke
- xi) Status epilepticus
- xii) Acute asthma/COPD exacerbation
- xiii) Acute respiratory failure
- xiv) Poisoning
- xv) Snake bite
- xvi) Heat stroke
- xvii) Hypoglycemia/hyperglycemia
- xviii) Hypertensive emergency
- xix) Trauma and initial stabilisation
- xx) Triage
- xxi) Referral and ambulance management
- xxii) Basic ventilator concepts
- xxiii) ABG interpretation

3. Cardiology

- i) ECG basics
- ii) Acute MI
- iii) Angina
- iv) Heart failure
- v) Common arrhythmias
- vi) Atrial fibrillation
- vii) SVT
- viii) Bradyarrhythmias
- ix) Hypertensive heart disease

- x) Valvular heart disease – basics
- xi) Pericarditis
- xii) Cardiac arrest

4. Neurology

- i) Stroke/TIA
- ii) Seizures and epilepsy
- iii) Status epilepticus
- iv) Headache and migraine
- v) Vertigo
- vi) Syncope
- vii) Meningitis/encephalitis
- viii) GBS – basics
- ix) Parkinsonism – basics
- x) Altered sensorium
- xi) Neurological emergencies

5. Pulmonology

- i) Asthma
- ii) COPD
- iii) Pneumonia
- iv) Tuberculosis
- v) Pleural effusion
- vi) Pneumothorax
- vii) Pulmonary embolism – basics
- viii) Acute respiratory failure
- ix) Sleep-related breathing disorders – basics
- x) Oxygen therapy
- xi) Nebulisation
- xii) ABG basics

6. Gastroenterology & Hepatology

- i) GERD
- ii) Gastritis and peptic ulcer
- iii) Acute gastroenteritis
- iv) GI bleeding
- v) Acute abdomen
- vi) Hepatitis
- vii) Jaundice
- viii) Cirrhosis – basics

- ix) Pancreatitis
- x) Acute liver failure – basics

7. Nephrology

- i) AKI
- ii) CKD
- iii) Electrolyte abnormalities
- iv) Acid-base disorders
- v) Nephrotic/nephritic syndrome – basics
- vi) UTI and pyelonephritis
- vii) Renal emergencies
- viii) Basic indications for dialysis

8. Endocrinology

- i) Diabetes mellitus
- ii) DKA
- iii) HHS
- iv) Hypoglycemia
- v) Hypothyroidism
- vi) Hyperthyroidism
- vii) Thyroid storm
- viii) Adrenal disorders – basics
- ix) Electrolyte emergencies

9. Dermatology

- i) Common bacterial, fungal and viral skin infections
- ii) Scabies
- iii) Pediculosis
- iv) Urticaria
- v) Atopic dermatitis
- vi) Contact dermatitis
- vii) Eczema
- viii) Psoriasis
- ix) Acne
- x) Fungal infections
- xi) Drug eruptions
- xii) Stevens-Johnson syndrome/TEN
- xiii) Herpes zoster
- xiv) Herpes simplex
- xv) Cellulitis

- xvi) Impetigo
- xvii) Common skin allergies
- xviii) Skin manifestations of systemic diseases
- xix) Dermatological emergencies

10. Paediatrics

- i) Growth and development
- ii) Immunisation
- iii) Common childhood infections
- iv) Fever
- v) Pneumonia
- vi) Bronchiolitis
- vii) Asthma
- viii) Acute gastroenteritis
- ix) Dehydration
- x) Febrile seizures
- xi) Convulsions
- xii) Dengue
- xiii) Anaphylaxis
- xiv) Poisoning
- xv) Common neonatal emergencies
- xvi) Paediatric emergency drug doses

11. Obstetrics & Gynaecology

- i) Antenatal basics
- ii) Pregnancy-related emergencies
- iii) Preeclampsia/eclampsia
- iv) Antepartum and postpartum haemorrhage
- v) Ectopic pregnancy
- vi) Acute pelvic pain
- vii) Menstrual disorders
- viii) PCOS
- ix) Vaginal infections
- x) Contraception
- xi) Menopause
- xii) Common gynaecological emergencies

12. Psychiatry

- i) Anxiety and depression
- ii) Panic attacks

- iii) Acute psychosis
- iv) Substance abuse
- v) Suicidal behaviour – emergency approach
- vi) Acute agitation
- vii) Sleep disorders
- viii) Basic counselling and referral

13. Orthopaedics & Sports Medicine

- i) Fractures and dislocations – first aid
- ii) Sprains and strains
- iii) Back pain
- iv) Neck pain
- v) Sports injuries
- vi) Head injury
- vii) Spinal injury
- viii) Joint pain
- ix) Acute limb injuries
- x) Immobilisation and referral

14. Ophthalmology

- i) Red eye
- ii) Conjunctivitis
- iii) Corneal injury
- iv) Foreign body
- v) Acute glaucoma – basics
- vi) Eye trauma
- vii) Sudden loss of vision
- viii) Chemical injury

15. ENT

- i) Acute tonsillitis/pharyngitis
- ii) Otitis media/externa
- iii) Sinusitis
- iv) Epistaxis
- v) Foreign bodies
- vi) Vertigo
- vii) Hearing loss – basics
- viii) ENT emergencies
- ix) Airway obstruction

16. Infectious Diseases

- i) Dengue
- ii) Malaria
- iii) Typhoid
- iv) Tuberculosis
- v) COVID/respiratory viral infections
- vi) Influenza
- vii) H1N1
- viii) HMPV
- ix) RSV
- x) HIV
- xi) Hepatitis
- xii) Rabies
- xiii) Tetanus
- xiv) Leptospirosis
- xv) Common outbreaks and outbreak control

17. Super-Specialty – Basic Knowledge

- i) **Cardiology:** ACS, Heart failure, Arrhythmias, ECG emergencies
- ii) **Neurology:** Stroke, Seizures, Altered sensorium
- iii) **Nephrology:** AKI, CKD, Electrolyte emergencies
- iv) **Gastroenterology:** GI bleeding, Pancreatitis, Acute liver failure
- v) **Pulmonology:** Respiratory failure, Pulmonary embolism, Pneumothorax
- vi) **Endocrinology:** DKA/HHS, Thyroid emergencies, Adrenal emergencies
- vii) **Critical Care:** Sepsis, Shock, Mechanical ventilation – basics, ABG, Vasopressors

18. Drugs & Pharmacology

- i) **Common emergency drugs and their indications:** Adrenaline, Atropine, Amiodarone, Adenosine, Aspirin and clopidogrel, Nitroglycerin, Furosemide, Salbutamol and ipratropium, Steroids, Antihistamines
- ii) Antibiotics – common classes and indications
- iii) Antivirals – basic knowledge
- iv) Antifungals – basic knowledge
- v) Antiepileptic drugs
- vi) Insulin and oral antidiabetic drugs
- vii) Antihypertensive drugs
- viii) Anticoagulants and antiplatelet drugs
- ix) Analgesics and NSAIDs
- x) Proton-pump inhibitors and antiemetics
- xi) IV fluids and fluid management

- xii) Magnesium sulphate, Calcium gluconate, Dextrose preparations, Sodium bicarbonate, Potassium replacement
- xiii) Vasopressors and inotropes – basics
- xiv) Common paediatric drugs and weight-based dosing
- xv) Drug contraindications and important adverse effects
- xvi) Drug interactions – common clinically important ones
- xvii) Prescription writing and safe medication practices

19. Surgery

- i) Wound management
- ii) Abscess
- iii) Acute abdomen
- iv) Appendicitis
- v) Hernia
- vi) Trauma
- vii) Fractures/dislocations
- viii) Head injury
- ix) Burns
- x) Common surgical emergencies

20. Basic investigations & interpretation

- i) CBC
- ii) Blood glucose/HbA1c
- iii) LFT/RFT
- iv) Electrolytes
- v) Lipid profile
- vi) ECG
- vii) Chest X-ray
- viii) Urinalysis
- ix) ABG basics
- x) Common radiological findings

20. General Aptitude and English

Syllabus for the Interview

Along with the Syllabus for the written exam following will be there

Hospital-Specific Situational Questions

- i) Student collapse in hostel
- ii) Chest pain in student/staff

- iii) Road traffic accident on campus
- iv) Sports injury
- v) Fever outbreak in hostel
- vi) Anaphylaxis
- vii) Poisoning
- viii) Snake bite
- ix) Heat stroke
- x) Suicide/self-harm emergency
- xi) Bedside manners
- xii) Ambulance referral
- xiii) Emergency when a specialist is unavailable
- xiv) Coordination with nursing, security, ambulance and administration
- xv) Occupational injuries
- xvi) Laboratory/chemical exposure
- xvii) Needle-stick injuries
- xviii) First aid
- xix) Mass casualty management
- xx) Infection-control measures
- xxi) Medical documentation and confidentiality
