

Indian Institute of Technology Bombay
Written test for the post of Medical Officer Scale-1
July 31, 2025; Duration: 2 Hours (10 am – 12 noon); Maximum Marks: 80

Note: All questions are compulsory. There are 4 printed pages in the Question Paper.

Application ID:

Signature:

Section A (Clinical Case Scenarios)

Read the case scenario and answer the outlined questions in brief (5 marks each)

Question A-1. A 45 years old male, chronic alcoholic, presents with loose motions, eczema and memory loss of 2 months duration. Enumerate nutritional deficiencies in a chronic alcohol abuser. Outline their clinical features and treatment.

Question A-2. A 20 years old female student, staying in hostel, presents with a 12 hours history of severe pain in abdomen with vomiting. Examination reveals tenderness in right iliac fossa. Enlist the Differential Diagnosis. Outline the diagnostic investigations and management of any one cause.

Question A-3. A 16 years old male presents with history of snake bite to left ankle followed 3 hours later with bilateral ptosis and breathing difficulty. Identify the snake and outline management.

Question A-4. A 80 years old male has a fall followed by severe pain and inability to move left hip. Give your diagnosis. Outline the investigations and management plan.

Question A-5. A 25 years old female with 34 weeks pregnancy presents with lower abdominal discomfort and bleeding per vaginum. Outline the differential diagnosis and management.

Section B (Specific conditions)

Answer each question in brief (5 marks each)

Question B-1. Acute myocardial Infarction- Diagnosis and management in a patient presenting within one hour of chest pain.

Question B-2. Childhood vaccination schedule.

Question B-3. Burden of non-communicable diseases in India.

Question B-4. Multi drug Resistant Tuberculosis- Treatment regimens.

Question B-5. Carcinoma cervix- Clinical feature, diagnosis and prevention

Section C (Each question carries 1 mark)

Choose the single best response

- 1) The most common opportunistic CNS infection in a patient of HIV-AIDS is
[A] Multiple Tuberculomas [B] Neurocysticercosis
[C] Cerebral Toxoplasmosis [D] Neurosyphilis
- 2) A 25 years old male develops severe abdomen pain, vomiting and loose motions, six hours after consumption of Chinese fried rice at roadside stall. The most likely ethological agent is
[A] *Bacillus cereus* [B] *Staphylococcus aureus* [C] *Clostridium perfringens* [D] Norovirus
- 3) A 30 years old female develops ascending paralysis, lower limbs followed by upper limbs over 3 days with bulbar weakness on admission. She had history of diarrheal illness 10 days prior to symptom onset. Her most likely diagnosis is
[A] Acute transverse myelitis [B] Guillian Barre Syndrome
[C] Adult polio like illness [D] Acute polymyositis
- 4) All the below mentioned ECG findings can occur in acute pulmonary embolism EXCEPT
[A] Sinus bradycardia [B] Right bundle branch block
[C] S I Q3 T3 pattern [D] Normal ECG
- 5) World AIDS Day is observed on
[A] 7th April [B] 1st July [C] 1st December [D] 24th March
- 6) The classic triad of Congenital Rubella Syndrome is
[A] Deafness, cataracts and Patent Ductus arteriosus
[B] Deafness, Mental retardation and ventricular septal defect
[C] Cataract, cleft lip and cleft palate
[D] Polydactyly, webbed neck and Tetralogy of Fallot
- 7) Which of the following is used to project qualitative data in a picture form
[A] Bar diagram [B] Pictogram [C] Pie Diagram [D] Contour map
- 8) The prevalence of Kalaazar in the endemic areas in India reduced after availability of which of the following oral drug
[A] Sodium Stibogluconate [B] Miltefosine
[C] Paromomycin [D] Amphotericin B
- 9) A 65 years old patient presents with weakness and wasting in Right palm with loss of sensation along inner aspect of forearm & arm. The roots most likely affected are
[A] C5 and C6 [B] C7 and C8 [C] C8 and T1 [D] T1 and T2
- 10) All of following are indicators useful for surveillance of Goitre Control Programme EXCEPT
[A] Prevalence of Goitre [B] Prevalence of Cretinism
[C] Measurement of serum T4 & TSH [D] Measurement of iodine content in salt

- 11) *Aedes aegypti* mosquito transmits all of the following diseases EXCEPT
 [A] Malaria [B] Dengue [C] Yellow fever [D] Chikunguniya
- 12) The ionotrope of choice to increase BP in patients of septic shock after building up the CVP is
 [A] Vasopressin [B] Noradrenaline
 [C] Dobutamine [D] Methyprednisolone
- 13) A patient given general anesthesia (GA) needs prolonged mechanical ventilation post GA. The most likely familial condition associated with this is
 [A] Plasma pseudocholinesterase deficiency [B] Plasma cholinesterase deficiency
 [C] Serum adenosine deaminase deficiency [D] Serum succinate dehydrogenase deficiency
- 14) In a patient undergoing general anesthesia, IV succinylcholine is used as muscle relaxant. He develops high fever, tachycardia, muscle rigidity and cola coloured urine. His most likely diagnosis is
 [A] Neuroleptic malignant syndrome [B] Occult Falciparum malaria
 [C] Intravascular hemolysis [D] Malignant hyperthermia
- 15) A 20 years old IV drug abuser develops jaundice with serum bilirubin – of 11 mg/dl and SGOT 1500 IU/L, SGPT 1750 IU/L. Which of the following test will be marker of acute hepatitis B infection in this patient
 [A] Serum HBsAg [B] Serum anti- HBS [C] IgM anti HBc [D] Anti HBe
- 16) Which of following is the worst type of spinal injury
 [A] Flexion-rotation injury [B] Flexion injury
 [C] Vertical compression injury [D] Extension injury
- 17) Heberden's nodes in hands are a feature of
 [A] Rheumatoid arthritis [B] Osteoarthritis [C] Gout [D] Pseudogout
- 18) An elderly man has a trivial trauma to the head. 4 days later, he develops drowsiness and right hemiplegia is noticed on 7th day. He does not have any skull/scalp swelling. His most likely diagnosis
 [A] Intracranial hemorrhage [B] Brain tumor
 [C] Subarachnoid hemorrhage [D] Subdural hematoma
- 19) A 45 years old painter comes with right wrist drop of acute onset. His most likely diagnosis is
 [A] Carpel tunnel syndrome [B] Cervical spondylosis
 [C] Whiplash injury to cervical spine [D] Lead poisoning
- 20) A 22 years old hostel student has fever with chills for 3 days. His blood smear is positive for falciparum malaria, Which of the following regimen would you administer
 [A] Artesunate with lumefantrine [B] Quinine with doxycycline
 [C] Chloroquine with doxycycline [D] Artesunate with chloroquine

- 21) A group of 10 students have to wade through flooded streets following heavy rains. Which of the following regimens would you give to prevent Leptospirosis.
 [A] Cap Doxycycline 200mg [B] Cap Amoxycillin 500mg
 [C] Tab Cefixime 400mg [D] Oral penicillin (Pentid) 800mg
- 22) Which of the following sites is the commonest for spine bifida occulta
 [A] Sacral 1 [B] Cervical C5 [C] Lumber L4 [D] Cranio vertebral junction C1
- 23) Hyperemesis Gravidarum is associated with all of the following factors EXCEPT
 [A] Poor Nutritional status [B] Twin pregnancy
 [C] Primipara status [D] History of motion sickness
- 24) A post menopausal woman develops pruritis vulvae. Which of the following is most effective treatment
 [A] Topical beclomethasone cream [B] Topical estrogen cream
 [C] Topical progesterone cream [D] Calamine lotion with topical antihistaminic
- 25) On a given day in the month of March 2025, 5% of total students of IIT Bombay reported with symptoms of cough and cold. The approximate number of students who reported is
 [A] 650 [B] 550 [C] 1250 [D] 720
- 26) The time that partial thickness burns take to heal is
 [A] 7 days [B] 10 days [C] 14 days [D] 21 days
- 27) Who is recognized as “Father of Surgery”
 [A] Sushruta [B] Hippocrates [C] Galen [D] Mc Burney
- 28) A 40 years old chronic Hepatitis B carrier presents with hematemesis. His upper gastrointestinal endoscopy reveals oesophageal varices. His most likely diagnosis is
 [A] Hepatocellular carcinoma
 [B] Budd Chiari syndrome
 [C] Cirrhosis of liver with portal hypertension
 [D] Fulminant Hepatitis B with hepatic encephalopathy
- 29) Which of the following risk factors are NOT associated with acute Pancreatitis
 [A] Hypercholesterolemia
 [B] Blunt abdominal trauma
 [C] Diabetes mellitus
 [D] Post Endoscopic retrograde cholangiopancreatography (ERCP)
- 30) Charcot’s triad refers to which of the following clinical findings
 [A] Fever, abdominal pain and jaundice
 [B] Abdominal pain, jaundice and hard palpable gall bladder mass
 [C] Right hypochondriac pain, jaundice and tender hepatomegaly
 [D] Fever, hematuria and ballotable renal mass.

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