

MEDICAL SCIENCE
(Paper II)

Time Allowed : Three Hours

Maximum Marks : 250

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

SECTION 'A'

1. (a) A 42-year-old lady from rural area has come with hugely distended abdomen, protuberant umbilicus and visible veins. She recently had bleeding per rectum. She has been running low-grade fever and cough for long. (i) Give your differential diagnosis giving five important diagnostic features of each. (ii) Give a flowchart of your approach to this case. 10
- (b) A 40-year-old drug addict was found in a drowsy state on road. He was severely malnourished, cachectic and dehydrated. His blood pressure was 70 mm of Hg. (i) Name the diseases with their five distinctive features to which drug addicts are prone to. (ii) What is *Pneumocystis carinii* pneumonia? How would you investigate and treat? 10
- (c) (i) Enumerate the common causes of community-acquired pneumonia in under-five children. (ii) Discuss the criteria for diagnosis and classification of pneumonia in the community, without resorting to investigations. 10
- (d) (i) Enlist the diagnostic criteria for severe malnutrition according to WHO classification in under-five children. (ii) Discuss the home/community-based management of children with moderate malnutrition. 10
- (e) Enumerate the points of differentiation between psoriatic and rheumatoid arthropathy. 10
2. (a) A 60-year-old chronic smoker, obese gentleman who had been suffering from diabetes for last five years, not on regular treatment, developed 'Ghabarahat' and sudden breathless and perspiration. (i) How would you work up this case? Draw a flowchart. (ii) Enumerate the line of treatment in case ECG indicates acute inferior wall myocardial infarction. (iii) Which lifestyle measures would you suggest to this person? 25
- (b) (i) How can you recognize heart failure in infants below 1 year of age? (ii) Enumerate the common causes of heart failure in infants. 15
- (c) "Vitiligo is a multifactorial, polygenic disorder." Give your justification to support the statement. 10
3. (a) It is late September month of year. A 25-year-old young executive from tribal area has been brought to hospital with high fever, rashes all over the body and bleeding nose. (i) Give your differential diagnosis. (ii) Name the investigations you will carry out in this case to confirm your diagnosis. (iii) In case his platelets fall to 15000 per cu mm, how does it help you in diagnosis, prognosis and treatment? (iv) Describe the clinical features and treatment of dengue shock syndrome. 25

- (b) (i) Discuss the etiology and pathophysiology of kernicterus in newborns. (ii) How can you prevent kernicterus? 15
- (c) A mason working at a building site has developed itchy, oozing lesions of hands and feet. What is the likely diagnosis? How will you identify the causative agent in him and manage the case? 10
4. (a) A 32-year-old lady with 12-week amenorrhoea has been brought to casualty with high fever. She is noted to have deep jaundice. (i) List your differential diagnosis giving five essential features of each entity. (ii) Discuss your plan of investigations. (iii) What would be your plan of treatment in case it turns out to be hepatitis B $\oplus$ and urine output in 24 hours drops to mere 200 ml? 25
- (b) (i) Describe the characteristics of Haemophilus influenzae b (Hib) vaccine. (ii) Enumerate the diseases which can be prevented by this vaccine. (iii) Describe the primary schedule of vaccination with Hib vaccine in an 8-month-old child. 15
- (c) What is Stevens-Johnson Syndrome (SJS)? Enumerate the common etiological factors and pathological events leading to its clinical manifestations. 10

SECTION 'B'

5. (a) Describe briefly the clinical presentation, diagnosis and management of a patient with coarctation of aorta. 10
- (b) Briefly enumerate and discuss the various therapeutic esophagoduodenoscopic procedures. 10
- (c) What are the signs and symptoms of first trimester of pregnancy? How would you confirm the diagnosis of first trimester of pregnancy? 10
- (d) Enumerate the various tests of ovulation in a 20-year-old woman. What is the advantage of knowing the exact time of ovulation? 10
- (e) Write about the Revised National Drug Policy for treatment of malaria. 10
6. (a) What are the various causes of upper gastrointestinal (GI) bleed? Briefly discuss how you will assess and manage a patient with massive upper gastrointestinal bleed. 15
- (b) What is abnormal lie? Enumerate the various causes of transverse lie in a multiparous woman. How will you manage the case of transverse lie at term with a live foetus? 20
- (c) What are the principles of hospital waste management? Describe the various treatment and disposal technologies for biomedical waste. 15
7. (a) Describe the clinical features, investigations and management of patients with ulcerative colitis. 20
- (b) Enumerate few commonly used intrauterine devices. What are the indications, contraindications and complications of intrauterine device? 15
- (c) Enumerate the Millennium Development Goals related to health. Describe the challenges for MDG. 15
8. (a) Describe the differential diagnosis in a 60-year-old male patient with painless, progressive jaundice of 2 months and palpable gallbladder. Briefly discuss how you will assess, investigate and manage a patient with a mass in pancreatic head. 15
- (b) Define antepartum haemorrhage. How would you manage a patient at 34 weeks of pregnancy who comes to casualty with a history of painless bout of bleeding? Mention the foetal and maternal complications associated with this condition. 15
- (c) Describe the steps in designing, conducting and analyzing a cohort study for diabetes mellitus. 20