Civil Services (Main) Examination, 2013

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 45-year-old lady, after death of her husband 2 months back, is feeling lonely and remains aloof. (i) Enumerate the likely conditions. (ii) How will you diagnose and manage a major depressive disorder? **10**

(b) What is the principle of ultrasound? In which medical conditions, it is almost diagnostic? **10**

(c) A 2-year-old boy was brought to you with cough and fever for 3 days. On examination, the respiratory rate was 46 per minute along with lower chest indrawing. (i) Classify the illness of this child as per IMNCI guidelines. (ii) Outline the treatment for this child. (iii) Enumerate the general danger signs you will ask or look for in this child to assess the severity of illness. **10**

(d) An 8-month-old child, weighing 8 kg, is brought with loose motions 6 per day, mixed with blood, for last 2 days. There is no history of vomiting. (i) Enumerate the 4 most important signs you will look/feel for to assess the severity of dehydration. (ii) Assessment of dehydration reveals SOME dehydration. Write the initial prescription for appropriate management of this child. **10**

(e) How will you differentiate between irritant and allergic contact dermatitis? Write the salient differentiating points of both. **10**

2. (a) An 18-year-old boy was brought to the casualty in stuporose condition with history of high-grade fever for 3 days. (i) Enumerate the causes. (ii) Describe the management of cerebral malaria. **25**

(b) An 18-month-old girl is diagnosed with Severe Acute Malnutrition (SAM). Outline the 4 diagnostic criteria for this condition. Write the 10 steps for appropriate management of severe malnutrition as per WHO guidelines. **15**

(c) (i) Enumerate the cutaneous, mucosal, follicular and nail manifestations of lichen planus. (ii) Describe the histopathological features in a typical lichen planus and their relevance to clinical presentation. **10**

3. (a) An elderly woman is bed-ridden for 4 weeks because of a fractured hip. She is brought to the casualty with sudden onset of breathlessness. (i) Enumerate the possible causes of breathlessness in this case. (ii) Describe the management of acute pulmonary embolism. **25**

(b) A 3-year-old child was brought to you with history of cyanotic spells and exertional dyspnea. The symptoms were relieved on assuming a knee-chest position. The child had **15**

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central cyanosis and clubbing. There were no features suggestive of congestive heart failure. Heart size was normal. (i) What is the most probable diagnosis? (ii) What is the major pathophysiological abnormality? (iii) Describe the pathophysiology and management of cyanotic spells in this condition.

(c) (i) What are various etiological factors for causation of vitiligo? (ii) Enumerate various disorders associated with vitiligo. **10**

4. (a) A 50-year-old male, chronic heavy alcoholic for 20 years, was administered aspirin for headache. Following which, he developed sudden massive hematemesis. (i) Enumerate the causes of hematemesis in this case. (ii) How will you manage this patient? **25**

(b) (i) Draw a flow diagram showing the pathophysiology of Respiratory Distress Syndrome in a newborn. (ii) Outline the measures to prevent RDS in a pregnant woman at 30 weeks of gestation, with threatened preterm labour. (iii) Enumerate the clinical factors predisposing to bilirubin toxicity in newborn infants. **15**

(c) A child in 2nd class of a public school had an itchy skin lesion. Within next 1 month, this lesion spread to 10 other students in the same class. Examination revealed multiple excoriated papulovesicular itchy lesions in finger-webs and flexural aspects of wrists. (i) What is the most likely diagnosis? (ii) Outline the prophylactic measures to be undertaken to prevent the spread to other children. (iii) Outline the management of individual children in this class. **10**

SECTION 'B'

5. (a) What are the advantages and limitations of minimally invasive surgery? Briefly enumerate the principles of laparoscopic cholecystectomy and the complications which can occur during the procedure. **10**

(b) What are the mode of infection, clinical presentation and complications of amoebic liver abscess? Briefly outline the management of patients with amoebic liver abscess including surgical intervention. **10**

(c) Define menopause. What are the signs and symptoms of menopause? How will you treat a case of hot flushes in a postmenopausal woman? **10**

(d) What are the commonly used methods for first trimester termination of pregnancy? Enumerate the immediate and remote complications of Medical Termination of Pregnancy. **10**

(e) Write a paragraph on relative and attributable risks related to a disease. How do they differ in the case of heart diseases? **10**

6. (a) How will you calculate the expected date of delivery? What are the methods recently used for induction of labour? What are the indications for termination of induction of labour? **20**

(b) What are the shortfalls in the health care delivery systems at the secondary and tertiary levels? **15**

(c) What are the boundaries and parts of oral cavity? Enumerate various factors predisposing to oral cancers. Briefly enumerate the assessment and treatment of a patient with ulceroproliferative growth involving anterior 2/3rd of tongue. **15**

7. (a) What are various types and causes of nipple discharge in a female? How would you examine, investigate and treat a patient with large 6 cm breast tumor with mobile axillary lymph nodes in the axilla? **20**

(b) What methods can be used for permanent sterilization of a 32-year-old female having 2 children? How is laparoscopic sterilization superior to tubectomy? **15**

(c) Discuss the role of Information, Education and Communication (IEC) systems in the management of Sexually Transmitted Diseases (STDs). **15**

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8. **(a)** What do you understand by Expanded Programme of Immunization (EPI)? Describe its components. **20**

(b) What is the difference in clinical presentation of right- and left-sided colonic cancers? Enumerate various factors predisposing to colonic cancers and briefly outline the management of a patient with caecal carcinoma. **15**

(c) Define accidental haemorrhage. How would you manage a woman at 34 weeks of pregnancy, who comes to casualty with history of painful bout of bleeding? Mention foetal and maternal complications associated with accidental haemorrhage. **15**

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