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## IAS Mains Medical Science Papers 1998

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### IAS Mains Medical Science 1998

#### Paper I

##### Section A

##### Anatomy, Physiology & Biochemistry

1. Answer any three of the following (each in about 200 words) :
  - a. Discuss the morphology and manifestations of carcinoid tumour (20) .
  - b. Answer any three of the following (each in about 200 words) :
    - i. Explain why cyanosis does not occur in histotoxic hypoxia.
    - ii. Explain briefly how drinking large amounts of plain water leads to an increase in urinary output.
    - iii. Explain why cardiac muscle cannot be tetanized.
    - iv. Enumerate the advantages of saltatory conduction (20)
  - c. Discuss pathogenesis and lab diagnosis of Amoebic liver abscess (20) .
  - d. Write a note on drug management of Asthma (20) .
  - e. Describe, with the aid of diagram, the metabolic changes in a case of uncontrolled diabetes mellitus. Mention the various biochemical investigations for the diagnosis and follow-up of a diabetic patient (20) .
  - f. Name the different cranial nerves. Describe the anatomy of autonomic nervous system with special reference to Gastro-intestinal Tract (20) .
2. Answer the following questions
  - a. Why are the trace elements called so? Enumerate the various trace elements required in human nutrition and mention their biochemical role (20) .
  - b. Define GFR, giving its normal value. Describe the forces determining GFR. Describe the determination of GFR based on renal clearance method (20)
  - c. Write short notes on:
    - i. Human placenta
    - ii. Draw and label a diagram of cross section of thorax through the angle of Louis (10 + 10 = 20) .

3. Answer the following questions

- a. Briefly describe the salient features of eukaryotic DNA. What is "Recombinant DNA" In your opinion, how does the recombinant DNA technology find practical application in biology and medicine (20) ?
- b. Define ECG. Describe the common leads used to record ECG. Describe a normal ECG with the help of a labelled diagram (20) .
- c. Write notes on:
  - i. Arterial supply to head and neck of femur
  - ii. Descent of testis (10 + 10 = 20)

## Section B

### Pathology & Microbiology

1. Answer the following questions

- a. Classify glomerulonephritis. Give etiopathogenesis and pathology of kidney in rapidly progressive glomerulonephritis (30) .
- b. Discuss etiology, epidemiology and pathogenesis of bacterial food poisoning (30) .

2. Answer the following questions

- a. Define a granuloma. Discuss the causes and pathogenesis of granulomatous inflammation (30) .
- b. Enumerate the causes of patches in throat. How will you proceed to establish the diagnosis (30) ?

## Section C

### Pharmacology Forensic Medicine & Toxicology

1. Answer the following questions

- a. Give mechanism, of action, therapeutic uses and adverse effects of Methotrexate (20) .
- b. What are the indications, contraindications and adverse reactions of Furosemide (20) ?
- c. Discuss the mechanism of antimalarial action, therapeutic uses and adverse effects of  
o Chloroquine (20) .

2. Answer the following questions

- a. Write medico-legal, significance of DNA fingerprinting (20) .
- b. Define 'Rape' What are the medical findings you may get in an alleged victim aged 10 years (20) ?

## Paper II

1. Write short notes on any three of the following (each in about 200 words) : (3 × 20 = 60)
  - a. Dementia
  - b. Define Hematemesis Enumerate the causes of Hematemesis.
  - c. How will you diagnose and treat leucorrhea due to gonococcus and trichomonas infection?
  - d. Discuss the concept of social security.

## Section A

### General Medicine

1. Discuss Acute Stroke and the principles of its management (60) .
2. Answer the following questions
  - a. Describe the symptoms and signs in Diabetic Autonomic Neuropathy (20) .
  - b. Describe Bundle Branch Block (20) .
  - c. Describe various laboratory methods used for the diagnosis of Pulmonary Tuberculosis (20) .

## Section B

### General Surgery

1. Classify Lymphedema. What are the causes of Lymphedema? Give management of a case of Lymphedema due to Filariasis of leg (60) .
2. Answer the following questions
  - a. Discuss complications of Inguinal Hernia (20) .
  - b. What is Pseudocyst of the Pancreas? Describe its management (20) .
  - c. Enumerate various methods of treatment of kidney stones (20) .

## Section C

### Obstetric and Gynecology including Family Planning

1. What is the etiology of high risk pregnancy? How will you diagnose and manage a multigravida with IUGR at 30 weeks of amenorrhea (60) ?
2. Answer the following questions
  - a. What are the different methods of female sterilization? Describe the procedure of minilap sterilization (20) .
  - b. How will you manage the third state of labour (20) ?
  - c. Enumerate the advantages of vacuum extractor over outlet forceps (20) .

## Section D

### Preventive and Social Medicine

1. Enumerate the various National Control Programmes against communicable diseases in India. Describe briefly the National Leprosy Control Programme (60) .
2. Write short notes on:
  - a. Management of class III dog bite in an adult (20)
  - b. Prevention and control of Rheumatic Fever (20)
  - c. Components and uses of Health Information System (20)