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IAS Mains Medical Science Papers 1999

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IAS Mains Medical Science 1999

Paper I

Section A

Anatomy, Physiology & Biochemistry

1. Answer any three of the following (each in about 200 words) :
 - a. Describe the development of rights and left Atria. Mention the congenital malformations associated with its development (20) .
 - b. Mention different ways by which enzyme activity is regulated. Describe the regulatory steps of glycolysis (20) .
 - c. Discuss briefly immune response to Virus Infection (20) .
 - d. Classify diuretics. Discuss the dosage and route of administration of Furosemide in different clinical conditions (20) .
 - e. A person is having 24 teeth of which 20 are milk teeth. Answer with reasons what is the age of the person (20) .
 - f. Describe the aetiopathogenesis of chronic hepatitis (20) .
2. Answer the following questions
 - a. Write short notes on:
 - i. Development of uterus and its congenital anomalies.
 - ii. Distribution of facial nerve (10 + 10 = 20) .
 - b. Discuss the mechanism of action of Hormones (20) .
 - c. Explain why toxicity of vitamins is seen mainly with respect to fat soluble vitamins only.
 - o Describe different forms and roles of vitamin A (20) .
3. Answer the following questions
 - a. Write short notes on:
 - i. Broncho-pulmonary segments of lungs.
 - ii. Mechanism of locking and unlocking of knee joint (10 + 10 = 20) .
 - b. Answer the questions

- i.* Describe the structure and functions of muscle spindle.
 - ii.* Compare the properties of monosynaptic and polysynaptic reflexes (10 + 10 = 20) .
- c.* Name the enzymes involved in DNA and RNA synthesis. Describe post-transcriptional modifications (20) .

Section B

Pathology & Microbiology

- 1.* Answer the following questions
 - a.* Discuss pathogenesis and pathology of ischaemic heart disease (30) .
 - b.* Discuss pathogenesis and laboratory diagnosis of Cholera (30) .
- 2.* Answer the following questions
 - a.* Describe carcinoma colon. Name its pre-cancerous conditions (30) .
 - b.* Name various parasites which may be found in the peripheral blood. Discuss briefly life cycle, pathogenicity and laboratory diagnosis of Plasmodium Falciparum (30)

Section C

Pharmacology Forensic Medicine & Toxicology

- 1.* Answer the following questions
 - a.* Describe the mechanism of action and adverse effects of narcotic analgesics (20) .
 - b.* Describe the mechanism of action, dosage and toxicity of ampicillin (20) .
 - c.* Discuss adverse effects of the following drugs.
 - i.* Chloroquin
 - ii.* Metronidazole
 - iii.* Methotrexate
 - iv.* Aspirin (20)
- 2.* Answer the following questions
 - a.* A skull has been sent to you for examination. How will you determine the sex and establish the individual identity (40) ?
 - b.* How will you differentiate an entry wound from an exit wound in case of a firearm injury (20) ?

Paper II

- 1.* Write short notes on any three of the following (each in about 200 words) : (3 × 20 = 60)
 - a.* Schizophrenia
 - b.* Complications of Ulcerative Colitis

- c. Diagnosis and management of Traumatic Post Partum Hemorrhage (RRH.)
- d. Uses of Cohert studies in Epidemiology

Section A

General Medicine

1. Describe the clinical features, investigations and management of Acute Myocardial Infarction (60) .
2. Answer the following questions
 - a. How will you diagnose iron deficiency anaemia (20) ?
 - b. What are the clinical features, diagnosis and treatment of Chronic Pyelonephritis (20) ?
 - c. Discuss the management of Acute Pyogenic Meningitis (20) .

Section B

General Surgery

1. Describe the pathology and management of Ilececal Tuberculosis (60) .
2. Answer the following questions
 - a. Discuss the pathogenesis and treatment of Breast Abscess (20) .
 - b. Describe the pathology and outline of diagnostic modalities of solitary module of thyroid (20) .
 - c. Classify the types of extra-capsular fractures of Proximal Femur and describe the treatment of trochanteric fractures (20) .

Section C

Obstetric and Gynecology including Family Planning

1. Describe the etiology, clinical features and management of ruptures uterus (60) .
2. Answer the following questions
 - a. What are I. U. C. D. s? Discuss Cu-T in detail (20) ?
 - b. What are the main objectives of A. N C (Ante-natal Care) ? Mention in detail about regular A. N. C (20) ?
 - c. Discuss placenta previa in detail (20) .

Section D

Preventive and Social Medicine

1. Discuss the multi-factorial etiology, resulting in malaria. List the steps in the control of malignant malaria (60) .
2. Answer the following questions
 - a. Discuss the prevention and treatment of Kala-azar (20) .

- b.* What are the health hazards of coal miners in open cast and underground mines (20) ?
- c.* Describe the causes associated with cancer cervix and cancer breast, among women 40 years and above (20) .