

This question paper contains 4 printed pages]

HPAS (Main)—2012

MEDICAL SCIENCE

Paper I

Time : 3 Hours

Maximum Marks : 150

Note :— Attempt Five questions, including Question No. 1 which is compulsory.

1. Describe sources, daily requirement and biochemical action of Vitamin D. Enumerate clinical uses of Vitamin D and describe clinical features of Vitamin D toxicity. 10+10+10=30

2. Describe anatomy of thyroid gland and biosynthesis of thyroid hormone. Discuss pathophysiology of Hypothyroidism. 10+10+10=30

P.T.O.

3. Write short notes on : 6×5=30

- (a) Cardiac cycle
- (b) Circadian rhythm
- (c) Liver function tests
- (d) Precocious puberty
- (e) Bell's palsy
- (f) Broca's area.

4. Write short notes on : 6×5=30

- (a) Neuromuscular junction
- (b) Functions of cerebellum
- (c) Respiratory alkalosis
- (d) p⁵³ gene
- (e) Hyperurecemia
- (f) Thiamine.

5. Write short notes on :

6×5=30

- (a) Methicillin resistant *Staphylococcus aureus*.
- (b) Bacteriophage
- (c) Cholera
- (d) Pseudomembranous enterocolitis
- (e) Polio vaccines
- (f) Human papilloma virus.

6. Discuss in brief :

6×5=30

- (a) Kwashiorkor
- (b) Methotrexate : Uses
- (c) Glomerular filtration rate
- (d) Undescended testis
- (e) Horse shoe kidney
- (f) Peak Expiratory Flow Rate (PEFR).

P.T.O.

7. Discuss in brief : 3×10=30

(a) Opiate overdose : Clinical features, diagnosis and management

(b) Mechanism of action, uses and side effects of frusemide.

(c) Partial Hanging.

8. Discuss in brief : 3×10=30

(a) Post-Streptococcal Glomerulonephritis

(b) *H. Pylori*

(c) HMG Co-A reductase inhibitors.