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.  

2. Describe anatomy of thyroid gland and biosynthesis of thyroid hormone. Discuss pathophysiology of Hypothyroidism.
3. Write short notes on:  
   
   (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:  
   
   (a) Neuromuscular junction  
   (b) Functions of cerebellum  
   (c) Respiratory alkalosis  
   (d) P53 gene  
   (e) Hyperurecemia  
   (f) Thiamine.
5. Write short notes on:  
   \[6 \times 5 = 30\]
   
   (a) Methicillin resistant *Staphylococcus aureus*.
   
   (b) Bacteriophage
   
   (c) Cholera
   
   (d) Pseudomembranous enterocolitis
   
   (e) Polio vaccines
   
   (f) Human papilloma virus.

6. Discuss in brief:  
   \[6 \times 5 = 30\]
   
   (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:  
\[3 \times 10 = 30\]

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

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

(c) Partial Hanging.

8. Discuss in brief:  
\[3 \times 10 = 30\]

(a) Post-Streptococcal Glomerulonephritis

(b) *H. Pylori*

(c) HMG Co-A reductase inhibitors.