2021
FOOD & NUTRITION
[HONOURS]
Paper : II

Full Marks : 75 Time : 4 Hours

The figures in the right-hand margin indicate marks.
Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **five** questions: 1×5=5
   a) What is Oogenesis?
   b) Define cardiac cycle.
   c) What is 'anatomical dead spac'e?
   d) What is meant by acclimatization at high altitude?
   e) State the cause of osteoporosis.
   f) What is meant by local hormone?
   g) What is End plate potential.
2. Answer any **six** questions: 2×6=12
   a) What is erythropoiesis?
   b) State the functions of J G apparatus?

   c) What is sarcomere?
   d) Write sources of insulin and glucagon.
   e) What is innate immunity?
   f) State the importance of FEV_1.
   g) What is bradycardia?
   h) What is cardiac index?
   i) What is menopause?
   j) What is peroxisome?
3. Answer any **three** questions : 6×3=18
   a) Write a note on innate immunity.
   b) Describe the process of CO_2 transport from the tissues to the lungs.
   c) Describe the mechanism of urine formation.
   d) Discuss the ultrastructure of plasma-membrane with a suitable diagram.
   e) Discuss briefly different events that take place in heart during cardiac cycle with suitable graph.
4. Answer any **four** questions : 10×4=40
   a) i) Discuss the ultrastructure of a mitochondrion with a suitable diagram.

ii) State the physiological significance of endoplasmic reticulum and lysosome. 6+(2+2)=10

b) i) Discuss the role of gastrin in gastrointestinal function.

ii) State the functions of cholecystokinin. 5+5=10

c) i) Differentiate between cellular and humoral immunity.

ii) Describe the structure of a typical IgG antibody. 5+5=10

d) i) What is Graafian follicle?

ii) Describe the changes occurs in the different phases of menstrual cycle. 2+8=10

e) i) How does sympathetic nervous system differ from parasympathetic nervous system?

ii) Mention four important functions of cerebellum. 6+4=10

f) i) What is ESR? State its clinical significance.

ii) Discuss the factors controlling erythropoiesis. (2+2)+6=10

———————