2023

ZOOLOGY

Paper : ZOOHC4096

(Animal Physiology : Life Sustaining System)

Full Marks : 60

Pass Marks : 24

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Choose the correct answer from any *five* of the following : 1×5=5

(a) Pepsin digests

(i) carbohydrate

(ii) lipid

(iii) protein

(iv) vitamin

(b) Sucrase is an enzyme found in

(i) saliva

(ii) gastric juice

(iii) intestinal juice

(iv) pancreatic juice

(c) The exchange of gases in the alveoli of lungs takes place by

(i) osmosis

(ii) simple diffusion

(iii) passive transport

(iv) active transport

(d) Life span of RBC is

(i) 20 days

(ii) 120 days

(iii) 100 days

(iv) 150 days

(e) Nephron is found in

(i) liver

(ii) pancreas

(iii) gallbladder

(iv) kidney

(f) Which is the largest gland in the body?

(i) Pancreas

(ii) Liver

(iii) Pituitary gland

(iv) Thyroid gland

(g) The respiratory center is located in

(i) cerebrum

(ii) cerebellum

(iii) medulla oblongata

(iv) pituitary gland

(h) Hormone regulating urine volume is

(i) aldosterone

(ii) secretin

(iii) renin

(iv) somatostatin

(i) Christmas factor is also known as

(i) factor VIII

(ii) factor IX

(iii) factor X

(iv) factor XII

(j) Bicuspid valve is also called

(i) right atrioventricular valve

(ii) pulmonary valve

(iii) mitral valve

(iv) aortic valve

2. Answer any *five* of the following questions : 2×5=10

(a) What is the function of HCl in digestion?

(b) State the distinction between intra-cellular and extracellular digestion.

(c) State the distinction between blood and lymph.

(d) State the distinction between systolic and diastolic pressure.

(e) What is glycosuria?

(f) What is lung capacity?

(g) What do you mean by myogenic heart?

3. Answer any *five* of the following questions : 5×5=25

(a) Describe the structure and functions of pancreas.

(b) Write a note on the importance of ABO blood grouping.

(c) Write a note on ornithine cycle.

(d) Describe oxygen dissociation curve and factors influencing in it.

(e) Describe the origin and conduction of cardiac impulses.

(f) Describe different compositions of human blood.

(g) How does the kidney help in acid-base balance?

(h) Write briefly on the associated glands involved in digestion of food.

(i) Describe the process of transport of carbon dioxide in blood.

4. Answer any *two* of the following questions : 10×2=20

(a) Describe the mechanism of digestion of protein in the GI tract.

(b) Describe the mechanism of breathing.

(c) Describe the mechanism of human blood clotting.

(d) Describe the structure of kidney with suitable diagram. Mention the different functions of kidney. 7+3=10

★★★