

2019

B.Sc. (Hons)

4th Semester Examination

PHYSIOLOGY

Paper - C9T

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.
Illustrate the answers wherever necessary.*

1. Answer any *five* questions from the following :

5×2

(a) Define deglutition and write its importance.

1+1

(b) State the distinctive histological features characterizing duodenum and stomach.

1+1

(c) Why is pancreas considered as a mixed gland?

2

[Turn Over]

- (d) Give the names of bile salts present in our body. 2
- (e) What is chylomicron? 2
- (f) Write down the ultrastructural features of oesophagus. 2
- (g) Mention the type of movements seen in human alimentary canal. 2
- (h) What is Peyer's patch? Where is it found? 1+1

2. Answer any *four* questions from the following :

4×5

- (a) Discuss briefly about the digestion and absorption of carbohydrates in human alimentary canal. $2\frac{1}{2}+2\frac{1}{2}$
- (b) Mention the functions of bile. Write the composition saliva. $2\frac{1}{2}+2\frac{1}{2}$
- (c) How is the intestinal mucosa protected from the acidic food entering from stomach? What are the major types of cells in the gastric glands? Name their secretions. $2+(1\frac{1}{2}+1\frac{1}{2})$

- (d) Discuss in brief the role of hepato-pancreatic system in absorption of proteins and fats.

2½+2½

- (e) Discuss in brief the neural and hormonal control involved in digestion.

2½+2½

- (f) What is meant by gastric emptying? Distinguish between constipation and indigestion.

2+3

3. Answer any *one* question from the following :

10×1

- (a) Write the dental formula for humans. Write the composition of pancreatic juice and describe its role in human digestion. Discuss the physiological functions of gastrointestinal hormones.

2+3+5

- (b) Describe the steps of human digestion mentioning the role of involved enzymes. What is the difference between chyme and chyle? Write down the functions of intestinal microflora. Why is emulsification important for digestion of Lipids? Write the physiological importance of brush border epithelium.

4+2+1+2+1
