

**PG CBCS**  
**M.Sc. Semester- I Examination, 2022**  
**FOOD SCIENCE & NUTRITION**  
PAPER CODE: FSN 103  
**(CELL BIOLOGY AND APPLIED PHYSIOLOGY)**



**Full Marks: 40**

**Time: 2 Hours**

**GROUP-A**

**Answer any FOUR questions:**

**4 X 2=8**

1. What is autophagy?
2. What is portal triad?
3. Write the functions of motor neurons.
4. Mention the important properties of thrombocytes.
5. State the role of diaphragm in breathing.
6. What is function of podocytes?
7. State the components and functions of Fab region.
8. What is regurgitation?

**GROUP-B**

**Answer any FOUR questions:**

**4 X 4=16**

9. State the different stages and regulation of erythropoiesis.
10. Discuss the mechanism of urine formation.
11. Describe the mechanism of chloride shift. What is its significance? 3+1
12. Make a brief note on the characteristics of the cell mediated immunity.
13. What is Rh factor? If father is heterozygous Rh +ve and mother is homozygous Rh -ve, then predict the Rh factor of offspring. 1+3
14. Describe how water-soluble hormones work.
15. How does hormone regulate carbohydrate metabolism?
16. Make a note on "Vagovagal reflex".

**GROUP-C**

**Answer any TWO questions:**

**2 X 8=16**

17. Define cardiac cycle? State different stages of cardiac cycle and their importance with special emphasis on the state of cardiac valves. 1+7
18. Discuss facilitated diffusion with an example. Describe the structure of lipids in cell membrane. Write the functions of integral protein.
19. Describe the types, structure and functions of chemical synapse. 2+4+2
20. Differentiate peristalsis and segmentation. Name and state the specific functions of cells found in gastric gland. What is gastric emptying? 2+4+2