No. of Printed Pages : 5 **MFN–001**

MASTER OF SCIENCE

(DIETETICS AND FOOD SERVICE MANAGEMENT)

[M. Sc. (DFSM)]

Term-End Examination

June, 2026

MFN-001 : APPLIED PHYSIOLOGY

Time : 3 Hours *Maximum Marks : 100*

Note : *(i) Question No. 1 is compulsory.*

*(ii) Answer **five** questions in all.*

(iii) All questions carry equal marks.

---

1. (a) Define physiology. Name any *two* physiologists who have contributed to the study of physiology. 2+2

   (b) Draw a diagram of an Eukaryotic cell, labelling its organelle. 5

   (c) Name any *four* components of the immune system. 2

   (d) What is the cardiac cycle ? Enumerate its two phases. 1+2

   (e) List the parts of the respiratory system. 2

   (f) Enlist the functions of : 2+2

      (i) Saliva

      (ii) Gastric juice

2. (a) Explain briefly the pathophysiology of hypertension. Enumerate the factors affecting blood pressure. 6+6

   (b) Describe the composition and the functions of blood in our body. 4+4

3. (a) Illustrate the structure and functions of the nephron. 2+8

   (b) Enumerate the hormones produced by the pituitary gland and describe their functions in the body. 10

4. Describe the structure and functions of the Central Nervous System (CNS). 20

5. (a) Briefly discuss the *two* processes involved in the transportation of substances across the cell membrane. 5

(b) Illustrate the structure of the eye with a suitable labelled diagram. 5

(c) Briefly explain the disorders of image formation in the human eye and its correction. 5

(d) Describe the mechanism of hearing. 5

6. (a) Explain the process of menstrual cycle. 10

(b) Briefly explain the physiology of lactation. 10

7. Explain the following briefly :

(a) Communication between neurons. 5

(b) Cerebral functional areas. 8

(c) Types and functions of cranial nerves. 7

8. Write short notes on any *four* of the following : 5+5+5+5

(a) Functions of pancreas

(b) Digestive functions of bile

(c) Constituents of the intestinal juices

(d) Uniqueness of the heart

(e) Internal defence mechanism process.

× × × × ×