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MFN-001

**MASTER OF SCIENCE (DIETETICS
AND FOOD SERVICE MANAGEMENT)**

[M. SC. (DFSM)]

Term-End Examination

December, 2024

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) What is a tissue ? Give their classification with suitable examples. 1+4
- (b) Enlist the *five* classes of antibodies. $2\frac{1}{2}$
- (c) Explain briefly the two phases of cardiac cycle. $2\frac{1}{2}$
- (d) List the organs involved in the process of respiration. 3

- (e) With respect to digestion of proteins, indicate in a tabular form the organ, digestive juice and enzyme produced in that organ and its action on proteins in our diet. 3
- (f) What is cerebral cortex ? Enlist its *four* lobes and what these lobes are associated with. 4
2. (a) Briefly explain the pathophysiology of hypertension. 8
- (b) What do you understand by Cell Mediated Immune System (CMIS) ? Briefly explain its role and mode of action. 2+10
3. (a) Explain briefly the *two* processes involved in the transportation of substances across the cell membrane. 10
- (b) Describe the composition and functions of blood in our body. 5+5
4. (a) Explain the role of kidney : 5+8
- (i) as an endocrine gland
- (ii) in the formation of urine
- (b) Illustrate the structure of salivary gland. Give the composition and function of saliva. 3+4

5. (a) Explain briefly how the insulin secretion is regulated in our body. 7
- (b) Give the composition and functions of bile in our body. 7
- (c) Briefly discuss the disorders of thyroid gland. 6
6. (a) Illustrate the structure and functions of the middle ear. 8
- (b) Explain the various disorders related to : 6+6
 - (i) Image formation
 - (ii) Hearing and management of the hearing disorder
7. (a) Describe in brief the disorders affecting the reproductive function. 12
- (b) Draw a labelled diagram of either a female or male reproductive system. 8
8. Write short notes on any *four* of the following : 4×5=20
 - (a) Structure and function of midbrain
 - (b) Renal function tests
 - (c) Structure and functions of liver in our body
 - (d) Mechanism of respiration
 - (e) Theories of ageing

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