

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

Term-End Examination, 2019

MFN-001 : APPLIED PHYSIOLOGY

Time : 3 Hours]

[Maximum Marks : 100

Note : Attempt five questions in all. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Give one example of each of the following : [1x10=10]
- (i) Self replicating cytoplasmic organelle of plant
 - (ii) Granulocyte
 - (iii) Site of erythropoiesis at 3-4 month intrauterine life
 - (iv) Large vein supplying blood to right atrium
 - (v) Part of pharynx



- (vi) Salivary gland
- (vii) Enzyme of Pancreas
- (viii) Gastrointestinal hormone
- (ix) Lobe of cerebral cortex
- (x) Organism that never die

(b) Briefly explain the following terms in 2-3 sentences each : [2x5=10]

- (i) Undifferentiated cell
- (ii) Classification of animal tissue
- (iii) Sickle cell anemia
- (iv) Bence-Jones protein
- (v) Dead space

2. (a) What is cell cycle ? [4]
- (b) Name the phases of cell cycle. [4]
- (c) Discuss the mitosis process with diagrams. [12]

3. (a) What is acquired immunity ? [2]
- (b) What are the types of acquired immunity ? [2]
- (c) Discuss in detail about the cell mediated immune system. [16]
4. (a) List the organs of Respiratory system. [4]
- (b) Discuss with diagram the structure and functions of Lungs. [8+8]
5. (a) What is the composition and function of gastric juice ? [6+6]
- (b) Discuss the mechanism of secretion of gastric juice. [8]
6. (a) What is the functional unit of Kidney ? [2]
- (b) Discuss its structure with suitable diagram. [6]
- (c) Explain the various functions of the functional unit of Kidney. [12]
7. (a) Draw a labelled diagram of nerve cell. [6]
- (b) How do the nerves communicate ? [6]

(c) Discuss the process of synaptic transmission.

[8

8. Write short notes on **any four** of the following : [5x4=20

(a) Functions of Pituitary gland

(b) Disorders of image formation of eyes

(c) Mechanism of Phagocytosis

(d) Cardiac cycle

(e) Structure and functions of antibody

(f) Age related changes in alimentary canal

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