

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

Term-End Examination

June, 2011

MFN-001 : APPLIED PHYSIOLOGY

Time : 3 hours

Maximum Marks : 100

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- Note :** (i) *Attempt any five questions in all.*
(ii) *Question no. 1 is compulsory.*
(iii) *All questions carry equal marks.*
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1. (a) Give one example for each of the following :
- (i) Glycoprotein released from kidney in response to tissue hypoxia **10x1=10**
 - (ii) White blood cells
 - (iii) Sensory organ of hearing
 - (iv) Retinal nerve cell for colour vision
 - (v) Cartilage that forms 'Adam's Apple'.
 - (vi) B - Cell that live for a long time
 - (vii) Organ having striated in voluntary muscle
 - (viii) Hormone acts on mammary gland for lactation
 - (ix) Pancreatic enzyme on in the body.
 - (x) Type of epithelium present in mucous layer of mouth.

- (b) Briefly explain the terms : 5x2=10
- (i) Atherosclerosis
 - (ii) Hypoxic hypoxia
 - (iii) Olfactory area
 - (iv) Rh. Incompatibility
 - (v) Eukaryotic cell
2. (a) Discuss the unique properties of cardiac muscle. 10
- (b) Explain different types of anaemia on the basis of etiology and morphology. 10
3. (a) Discuss the neural control of respiration. 10
- (b) Describe the structure and functions of liver. 10
4. (a) Briefly discuss the passive transport process across cell membrane. 10
- (b) Discuss the function of kidney in relation to maintaining water balance. 10
5. Draw a labelled diagram of a nerve cell. Explain the process of synaptic transmission. 10+10
6. (a) What is the mechanism of secretion of gastric juice ? Write its composition and function. 10
- (b) (i) Name the hormones secreted from anterior and posterior pituitary gland. 4
- (ii) Discuss the role of growth hormone. 6

7. (a) Diagrammatically describe the organ of taste perception. 10
- (b) Describe the structure of the eye and explain the mechanism of vision and disorders of image. 4+3+3
8. Write short notes on *any four* of the following :
- (a) Cell cycle 5+5+5+5
- (b) Specific acquired immunity
- (c) Movements of the gastrointestinal tract
- (d) Peripheral nervous system
- (e) Phases of menstrual cycle
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