

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

Term-End Examination

June, 2007

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) Explain the following in 2 – 3 sentences each : **10**

(i) Parkinson's disease

(ii) Cornea

(iii) Antibodies

(iv) Atherosclerosis

(v) Dialysis

(b) Match the items in Column A with the items in
Column B : **10**

<u>Column A</u>	<u>Column B</u>
(i) Gyri	(1) Procedure to measure the activity of heart
(ii) Polycythemia	(2) Covering of the heart
(iii) Diuresis	(3) Voice Box
(iv) Chancroid	(4) Folds of Cerebral Cortex
(v) Grave's disease	(5) Large numbers of RBCs in the blood
(vi) Chyme	(6) Increased output of urine by kidneys
(vii) Pleura	(7) Sexually transmitted disease
(viii) E.E.G.	(8) Hyperactivity of Thyroid Gland
(ix) Hodgkin's disease	(9) Semi-solid mass of partially digested food
(x) Larynx	(10) Covering of lungs
	(11) Tracing of electrical activity of Brain
	(12) A type of lymphoma

2. (a) Diagrammatically explain the male and female reproductive organs. 4+4
- (b) Describe the physiology of lactation. 12
3. (a) What are the 'normal' and 'abnormal' constituents of the urine ? 10
- (b) Describe the role of Loop of Henle in maintaining the fluid and electrolyte balance in the body. 10

4. (a) Describe the structure of the stomach. 5
(b) What are the various functions of the stomach ? 5
(c) Explain the composition and function of gastric juice. 10
5. (a) Describe the properties of a beating heart. 6
(b) What do you understand by the term, “Cardiac Output” ? 6
(c) Explain the phases of ‘Cardiac Cycle’. 8
6. (a) Differentiate between the Central and Peripheral Nervous System. 6
(b) Describe the functions of the cranial nerves. 6
(c) Diagrammatically explain the cerebral functional areas. 8
7. (a) Describe in brief the various types of tissues and their function. 10
(b) What is erythropoiesis ? Briefly describe the various factors which regulate erythropoiesis. 10

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

- (a) Osmosis
- (b) Role of Rods and Cones in perception of vision
- (c) Antibody mediated immune system
- (d) Intracellular and extracellular fluid components
- (e) Neural control of respiration
- (f) Hormones secreted by Anterior Pituitary Gland