

2014

**M.Sc. Part-I Examination**

**DIETETICS AND COMMUNITY NUTRITION MANAGEMENT**

**PAPER—I (Unit-1)**

*Full Marks : 50*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

*Answer Question No. 1 and any four from the rest.*

1. Answer any five of the following : 2×5

- (a) What is haematocrit value ?
- (b) What is the function of cholesterol esterase ?
- (c) State the structural peculiarities of SA Node.
- (d) What is antiperistalsis ?
- (e) State the function of Renin.
- (f) What do you mean by TmG ?

*(Turn Over)*

- (g) What are the causes of Type II Diabetes ?
- (h) What are diuretics ?
2. (a) Mention the composition of pancreatic juice.  
 (b) Discuss the function of bile salts in fat digestion and absorption.  
 (c) Briefly discuss the mechanism of secretion of HCl.  
 2+4+4
3. (a) Discuss the role of baroreceptor in the regulation of blood pressure.  
 (b) What are cardiac reflexes ?  
 (c) State Frank-Starling's Law.  
 5+3+2
4. (a) Discuss the role of Kidney in acid-base balance of the human body.  
 (b) Mention the abnormal constituents of urine.  
 (c) State the role of ADH in formation of urine.  
 5+2+3
5. (a) What are G-proteins ?

- (b) Discuss the mechanism of signal transduction through a G-protein coupled receptor, involving the enzyme phospholipasec.
- (c) How thyroxin level is regulated in blood ?  
 2+4+4
6. (a) Discuss with suitable diagram the changes taking place in ovary and uterus during the stages of menstrual cycle  
 (b) Discuss briefly the hormonal control of menstrual cycle  
 6+4
7. (a) Discuss the role of corpus luteum in maintenance of pregnancy.  
 (b) State the physiological changes taking place during pregnancy.  
 (c) What is the role played by hCG in pregnancy.  
 3+4+3
8. (a) What is complement system ?  
 (b) Discuss the alternative pathway of complement activation.  
 (c) Discuss T-cell mediated macrophase activation.  
 2+4+4

9. (a) What do you mean by growth and development?  
(b) Describe the growth curve of different organs and tissue in Post-natal life.

3+7