

M.Sc. Part-I Examination, 2013
DIETETICS AND COMMUNITY
NUTRITION MANAGEMENT

PAPER – I (Unit-1)

Full Marks : 50

Time : 2 hours

The figures in the right hand margin indicate marks
Candidates are required to give their answers in their
own words as far as practicable

Illustrate the answers wherever necessary

Answer Q.No. 1 and any four from the rest

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

(a) What do you mean by blood vessel of blood vessels ?

(b) State the function of α -amylase.

- (c) Mention the peculiarities of the structure of proximal convoluted tubules of nephron.
- (d) What are the critical periods of growth ?
- (e) What is opsonization ?
- (f) What are goitrogenic substances ?
- (g) Mention the changes of fat metabolism during pregnancy.
- (h) What do you mean by sodium dependent glucose transporter ?
2. (a) Describe the histological structure of esophagus.
- (b) Discuss briefly the regulation of gastric secretion.
- (c) Mention the composition of saliva. 3 + 5 + 2
3. (a) What is cardiac index ?
- (b) Discuss the mechanism of regulation of cardiac output. 3 + 7

4. (a) What is glomerular filtration ? Mention the factors affecting glomerular filtration.
- (b) How Na^+ and K^+ are reabsorbed in the renal tubules ? (2 + 3) + 5
5. (a) What do you mean by sex difference in growth ?
- (b) Discuss briefly skeletal and dental maturity in postnatal period. 4 + (4 + 2)
6. (a) What do you mean by feedback mechanism in the regulation of hormone secretion ?
- (b) Discuss briefly the eAMP signal transduction process with special reference to non-genomic pathway.
- (c) What do you mean by mobile model receptor of hormone. 3 + 5 + 2
7. (a) Mention the structure of testosterone.
- (b) Discuss the regulation of testosterone secretion.

(c) Mention the role of testosterone on skeletal growth. $3 + 5 + 2$

8. (a) What are cytolytic T-lymphocytes ?

(b) Discuss the mechanism of cytolytic T-lymphocyte mediated cytotoxicity.

(c) How cytolytic T-lymphocytes are released ? $2 + 5 + 3$

9. (a) State in brief about hormonal regulation of pregnancy maintenance.

(b) Discuss in short about metabolic changes during pregnancy. $5 + 5$