2008

M.Sc.

2nd Semester Examination

HUMAN PHYSIOLOGY

PAPER—VII

Full Marks : 40

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.

Write the answers to the questions of each Unit in <u>separate books</u>.

UNIT—13

Answer any *two* questions.

1. (a) Give a brief account of Hardy-Weinberg law.
   (b) Discuss the assumptions for Hardy-Weinberg law.
   (c) Tay-sachs disease is caused by the mutation of a gene on chromosome 15 of human. Tay-Sachs is inherited autosomal recessive condition. Among a central European population about 1 in 3500 children is born with the disease. What fraction of individuals in this population are carriers ?   3+4+3

2. (a) Why children of under five years are identified as vulnerable section in Indian Society ?
   (b) Write on the four point strategy (suggested by UNICEF) operating through community based primary health care that can help to solve the problem of the children.
   (c) Describe how socio-economic conditions like economic status and education have influence on health.
                                                      4+3+3

3. (a) What are Tumor Supressor Genes ?

   (b) Discuss the role of p53 as a tumor supressor gene.

   (c) Mention the importance of RAS in carcinogenesis.

   3+5+2

4. (a) What is gout ?

   (b) Mention the factors involved in the development of gout.

   (c) Discuss the metabolic changes, symptoms and management of gout.   2+2+(2+2+2)

UNIT—14

Answer any *two* questions.

5. (a) Describe the process of atherosclerosis.

   (b) Explain why ghee is not recommended and fish is recommended in CHD.   5+(2+3)

6. (a) What are the different types of nutritional anemia ?

   (b) What is Koilonychia ? Describe the symptoms of iron deficiency anemia.

   (c) Mention the causes of iron deficiency in India.

   3+(1+3)+3

7. (a) What do you mean by MRDM ?

   (b) Discuss aetiology of diabetes mellitus.

   (c) What is glycemic index ? Mention its importance in dietary management of diabetes mellitus.

   2+5+(1+2)

8. (a) Discuss briefly the causes of protein-calorie malnutrition in India.

   (b) Discuss the role of glutamate-NMDA receptor for inducing neurotoxicity during aging process.

   5+5