

**M.Sc. 2nd Semester Examination, 2014**

**HUMAN PHYSIOLOGY**

**PAPER – PHY-201(U-13 + U-14)**

*Full Marks : 40*

*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*

**UNIT—13**

**[Marks : 20]**

1. (a) Define Communicable disease.
- (b) What do you understand by vehicles of transmission of communicable diseases ?
- (c) Discuss the risk factors and at-risk group of one prevalent disease in India. 1 + 1 + (2 + 1)

*( Turn Over )*

( 2 )

*Or*

Write notes on :

$2\frac{1}{2} \times 2$

- (i) Genetic structure of a population
  - (ii) Hardy-Weinberg principle.
2. (a) Differentiate between benign and malignant tumerogenesis.
- (b) Mention the underlying reasons for development of cancer.
- (c) What are DNA tumor viruses ? 2 + 2 + 1
- Or*
- (a) What are tumor suppressor genes ?
  - (b) Mention the importance and role of  $p^{53}$  in development of cancer. 1 + 4
3. (a) What do you understand by vulnerable group in a population ?
- (b) What is infant mortality rate ? Mention the leading causes of death in under-five children.

( 3 )

- (c) Discuss in brief the infant mortality rate and maternal condition in India.  $1 + (1 + 1) + 2$

*Or*

- (a) Why malnutrition is considered as a major cause of social vulnerability of children ?
- (b) What is the impact of vitamin and mineral deficiency in children ?  $\left(3\frac{1}{2} + 1\frac{1}{2}\right)$

4. (a) What is meant by the term 'endemic' ?
- (b) Discuss in brief the "epidemiological triad" and the factors influence it.  $1 + 4$

*Or*

- (a) Mention the levels of prevention of a disease.
- (b) What are the major preventive measures undertaken for communicable diseases ?
- (c) Give a brief outline of the strategies for prevention and control of HIV/AIDS.  $1 + 2 + 2$

( 4 )

UNIT-14

[Marks : 20]

1. (a) What are functional foods ?
- (b) Write the role of nutraceuticals in the management of diabetes mellitus.
- (c) Mention the causes and symptoms of paralytic shellfish poisoning (PSP). 2 + 2 + 1

*Or*

- (a) Describe the different classes of nutraceuticals and their sources.
  - (b) What are fat replacers ?
  - (c) What do you mean by dietary supplements ?  
3 + 1 + 1
2. (a) What do you mean by "Catch-up-growth" ?
  - (b) How can you prepare a healthy snacks for a pre-school children ?

( 5 )

- (c) What is your recommendation about the special formula for preterm babies ? 1 + 2 + 2

*Or*

- (a) Write the causes of nausea during pregnancy.
- (b) "Toxemia and pregnancy are closely related to each other"— Explain it.
- (c) What do you mean by galactopoiesis ? 2 + 2 + 1
3. (a) Briefly discuss the genetic, environmental and adepocyte factors associated with the etiology of obesity.
- (b) Name the drugs used in the treatment of obesity .
- (c) What is gestational diabetes ? 3 + 1 + 1

*Or*

- (a) State the cause and management of type II diabetes.

( 6 )

(b) Give examples of some iron absorption promoters and inhibitors.  $3 + 2$

4. Write a short note on (any two) :  $2\frac{1}{2} + 2\frac{1}{2}$

(i) Mid day meal (MDM)

(ii) Special nutrition programme (SNP)

(iii) Load tests for vitamins

(iv) 24-hour recall method.

*Or*

(a) What are the causes of osteoporosis in the aged people? Discuss the nutritional management of anemia in aged people.

(b) Describe the calcium mediated neuro-endocrine mechanism in aging.  $\left(\frac{1}{2} + 2\right) + 2\frac{1}{2}$

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