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15116

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) All Questions are *compulsory*.  
(2) Illustrate your answers with neat sketches wherever necessary.  
(3) Figures to the right indicate full marks.

- |   | <b>Marks</b> |
|---|--------------|
| <b>1. Solve any FIVE of the following :</b>                                       | <b>20</b>    |
| (a) What are Kwashiorkar and Marasmus ?   |              |
| (b) Explain the role of dietary fibers in health.                                 |              |
| (c) Explain Meal planning and factors affecting the acceptability of food.        |              |
| (d) Define saturated, mono-unsaturated and poly-unsaturated fats.                 |              |
| (e) Describe urea cycle.  |              |
| (f) Explain methods of preservation of nutrients in cooked food.                  |              |
| (g) Describe the factors affecting enzyme activity.                               |              |
| <b>2. Solve any FOUR of the following :</b>                                       | <b>16</b>    |
| (a) Write the sources and functions of carbohydrates.                             |              |
| (b) State biological value of protein.  |              |
| (c) What is Basal metabolic rate ?  |              |
| (d) Describe evaluation of protein quality with example.                          |              |
| (e) Classify amino acids based on nutritional aspects.                            |              |
| (f) What are vitamins ? Classify them giving suitable example from each category. |              |
| <b>3. Answer any FOUR of the following :</b>                                      | <b>16</b>    |
| (a) Write various functions of cholesterol.                                       |              |
| (b) Write the sources, functions and deficiency disorders of Vitamin A.           |              |
| (c) Describe the methods of food preservations.                                   |              |

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- (d) Classify Hormones with suitable examples.
- (e) Write the coenzymic form and its biochemical role of any two B-complex vitamins.
- (f) Describe historical development of knowledge of nutrition in brief.

**4. Solve any TWO of the following : 16**

- (a) Describe the sources, functions and deficiency caused by minerals Ca, Fe, Zn and Na.
- (b) Describe TCA cycle with its significance.
- (c) Describe sources, functions, deficiency and dietary requirement of calcium.

**5. Answer any TWO of the following : 16**

- (a) Describe sources, functions, deficiency and dietary requirement of Vitamin 'C'.
- (b) Describe sources, functions, deficiency and dietary requirement of Iron.
- (c) Describe Ketogenesis. What is ketosis and diabetic ketoacidosis ?

**6. Solve any FOUR of the following : 16**

- (a) Enzymes in clinical diagnosis of liver diseases.
  - (b) Aleaptonuria – Enzyme defect and symptoms.
  - (c) Gout
  - (d) Draw and label the diagram of eukaryotic cell.
  - (e) Oxidative phosphorylation.
  - (f) Write the functions of prostaglandins.
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