

Roll No. ....

Total Pages : 03

**LMDQ/D-23**

**6553**

PUBLIC HEALTH NUTRITION-I  
FND-302

Time : Three Hours]

[Maximum Marks : 80

**Note** : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory.

**(Compulsory Question)**

1. Describe the following : **4×4=16**

- (a) Bioelectrical impedance analysis
- (b) Prader Willi syndrome
- (c) Thermogenesis
- (d) Prostaglandins and their role in human health.

**Unit I**

2. Describe different types of body composition. What type of changes occur in body with different type of physical activity and exercise ? Explain in detail. **16**

3. (a) How will you determine acid-base balance ? Discuss direct and indirect methods.
- (b) Elaborate disorders caused by acid-base imbalance in detail. **8×2=16**
4. Describe electrolytes. How do electrolytes affect water balance ? Write the effects of electrolytes imbalances on water balance in detail. **16**
5. Explain the following : **16**
- (a) Harmonal signal of hunger and eating.
- (b) Nutrient signal of hunger and eating.

## Unit II

6. (a) Describe energy metabolism. Write direct methods of energy metabolism determination in detail.
- (b) How can BMR be maintained ? Explain. **8×2=16**
7. (a) Explain significance of fructo-oligosaccharides in health and diseases.
- (b) How does n-3 and n-6 help in maintenance of health and prevention of diseases ? Explain with suitable examples. **8×2=16**

8. (a) Define and differentiate nutritive and non-nutritive sweeteners.
- (b) How do essential fatty acids useful for human health ? Explain in detail. **8×2=16**
9. (a) Describe glycemic index along with its significance.
- (b) What are trans fatty acids ? Write their role in human health. **8×2=16**