

Seat No. : \_\_\_\_\_

## NE-104

December-2015

B.Sc., Sem. – V

### Core Course-304 : Biochemistry

Time : 3 Hours]

[Max. Marks : 70

1. (a) Explain in detail Structure and Flagellar motion in Bacteria. 9  
(b) Write a short note on Single cell Protein. 5

**OR**

- (a) Discuss the role of microorganisms in Sewage treatment. 6  
(b) Give the composition and list the functions of Metachromatic Granules. 6  
(c) What is Pleomorphism 2
2. (a) Define giving examples : 6  
(1) Intensifier  
(2) Amphoteric stain  
(3) Mordant  
(b) Write a note on Economic importance of Fungi 8

**OR**

- Write a note on : 14  
(1) Acid fast staining  
(2) Archaeobacteria
3. (a) Discuss briefly : 8  
(1) Role of Proteins  
(2) Carbohydrate Loading  
(b) Write a note on Trans fats. 6

**OR**

- (a) Explain briefly : 7
- (1) Dental Caries
- (2) Ketosis
- (b) Discuss Nitrogen Balance and factors affecting it. 7
4. (a) Explain BMR and factors affecting it. 8
- (b) Discuss Nutritional value of Fruits and Vegetables. 6
- OR**
- (a) Discuss Energy Balance. 6
- (b) Discuss Vegetarianism Vs. Non-vegetarianism. 8
5. Answer in brief : 14
- (1) Name the two important chemical constituents of Bacterial Endospores. (1)
- (2) Define Compound stain and Intensifier with examples. (2)
- (3) Give one example of spiral shaped bacteria. (1)
- (4) What is Negative staining ? (1)
- (5) Give any two economic significance of Capsules. (1)
- (6) Give one example each of Gram negative & Gram Positive Bacteria. (1)
- (7) Name the four transport forms of lipids in our body. (2)
- (8) What are Dietary Fibres ? (2)
- (9) Write the full form of RDA and define it. (2)
- (10) What is the unit of Energy ? (1)
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