

Seat No. : _____

DB-107

December-2013

B.Sc. (CBCS) Sem.-V

304 : Biochemistry

(Introduction to Microbiology & Nutrition)

Time : 3 Hours]

[Max. Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) Marks are indicated on the right side.
(3) Draw diagrams wherever necessary.

1. (a) Explain in detail Sporulation in Bacteria. **9**
(b) Discuss the role of microorganisms in production of dairy products. **5**

OR

- (a) Discuss the differences in Cell wall of Gram +ve and Gram –ve Bacteria. **7**
(b) Discuss size, shape and arrangement of bacterial cell. **7**

2. (a) What is differential staining ? Explain principle, technique and results of Acid fast staining. **8**
(b) Write a note on Mycoplasma. **6**

OR

- (a) Write a note on : **12**
(1) Viruses
(2) Leucocompounds
(3) Metachromatic granule staining
(b) Give two main differences between Bacteria and Archaeobacteria. **2**

3. (a) Discuss dietary fibers and their role in prevention of diseases. **8**
(b) Write a brief note on Trans fats. **6**

OR

(a) Explain briefly :	8
(1) Dental Caries	
(2) Ketosis	
(b) Discuss Nitrogen Balance and factors affecting it.	6
4. Explain any two :	14
(1) BMR and factors affecting it.	
(2) Nutritional value of Milk.	
(3) Balanced Diets	
(4) Advantages of Vegetarianism	
5. Answer in brief :	14
(1) What is Chemotaxis ?	2
(2) Give the importance of making a smear & fixation during staining.	2
(3) Name two important organisms which play an important role in recycling of elements.	2
(4) What is supplementary value of proteins ?	2
(5) Define the unit of Energy.	2
(6) Name the four transport forms of lipids in our body.	2
(7) Define RDA.	2
