

**M. SC. (Microbiology) SEM-IV (C.B.C.S.) (2012 COURSE) : WINTER  
- 2018**

**SUBJECT: APPLIED MICROBIOLOGY**

Day: Wednesday  
Date: 24/10/2018

**W-2018-1031**

Time: 03.00 PM TO 06.00 PM  
Max. Marks: 60

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**N.B:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat labeled diagrams **WHEREVER** necessary.
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**Q.1** Describe different steps involved in milk processing. Explain in detail how (15)  
processing can affect the changes in milk components.

**OR**

Define Probiotics. Mention different criteria associated with the probiotic microorganisms.

**Q.2 a)** Explain in detail food infection caused by *Shigella* sp. (08)  
**b)** Flavour defects in milk its causes and prevention (07)

**OR**

**a)** Describe the commercial production and the spoilage of butter (08)  
**b)** Describe initial Microflora of Raw milk. (07)

**Q.3** Attempt **ANY THREE** of the following: (15)

- a)** Explain different methods used for meat fermentation and its spoilage
- b)** What are different types of the specialized milks
- c)** Describe the therapeutic properties of Probiotic microorganisms
- d)** Describe the role of *Entamoeba histolytica* as a food borne pathogen

**Q.4** Write short note on **ANY THREE** of the following: (15)

- a)** Milk composition
- b)** Wine
- c)** The influence of storage and transport on quality of raw milk
- d)** Udder disease of cattles and its effects on bacterial content of raw milk
- e)** Factors affecting survival of probiotics in food systems

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