

2019

B.Sc. (Hons.)

4th Semester Examination

MICROBIOLOGY

Paper—C10T

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group-A

1. Answer any *five* questions from the following :
- 5×2
- (a) What is HACCP ? Write its importance. 2
- (b) What is koumiss and kefir ? 2
- (c) Mention the cause of spoiling of chees during ripening. 2
- (d) Name two major sources of contamination of foods. 1+1
- (e) What is the utility of *dye reduction test* in food industry ? 2

[Turn Over]

- (f) What is sharp freezing and quick freezing with advantage. 2
- (g) Why is the spermosphere important for pathogen survival in sprout ? 2

Group-B

2. Answer any *four* questions from the following :
4×5

- (a) Briefly describe each type of conventional method for detection of food borne pathogens and write the demerits of each method. 3+2
- (b) A pastry chef accidentally inoculated a cream pie with six *S. aureus* cells. If *S. aureus* has a generation time of 60 minutes, how many cells would be in the cream pie after 7 hours. What is cross contamination of food ? 3+2
- (c) What are the major types of milk fermentations ? 5
- (d) Write the basic principle of food spoilage. How canned food is spoiled ? 2+3
- (e) How does a food-borne intoxication differ from a food-borne infection ? Cite some examples from both categories of disorders.

- (f) Brief describe the indices of food sanitary quality. 5

Group-C

3. Answer any *one* questions from the following : 1×10
- (a) Define food additive and preservatives. Classify the preservatives with example and write their effectiveness. 3+7
- (b) Write the pre requisites for a good probiotic. How does aflatoxin poisoning cause DNA adduct formation. What is meant by organic milk and how can it be preserved ? 4+3+3
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