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S. No. of Question Paper : 5824

Unique Paper Code : 2532011203

Name of the Paper : Food and Dairy Microbiology

Name of the Course : B.Sc. (Hons.) Microbiology

Semester : II, Part-I

Duration : 3 Hours

Maximum Marks : 90

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt any five questions

All questions carry equal marks.

1. (a) Define the following terms (any seven) :

7×2=14

(i) D-value

(ii) Rancidity

(iii) Drip

(iv) Blanching

(v) Smothered milk

(vi) Aseptic packaging

(vii) TQM

(viii) Synbiotic.

(b) Expand the following terms (any four) :

4×1=4

IMF, SPC, TDT, FDA, ISO

P.T.O.

2. Differentiate between the following (any *six*) : 6×3=18
- (a) Dahi and Yoghurt
 - (b) Radurization and Radappertization
 - (c) Food-borne infection and Food-borne intoxication
 - (d) TA spoilage and Flat sour spoilage of canned foods
 - (e) Kefir and Kumiss
 - (f) Class I and Class II preservatives
 - (g) Slow and Quick Freezing.
3. (a) Discuss any *one* of the rapid detection methods for detection of food-borne pathogens. 4
- (b) Write the causative agent, symptoms, foods involved and preventive measures of the following diseases (any *two*) : 2×7=14
- (i) Botulism
 - (ii) Bacillary dysentery
 - (iii) Cholera.
4. (a) Write the principle and limitations of HACCP. 9
- (b) Explain the effect of moisture content **OR** temperature on the growth of microorganisms. 5
- (c) Give *two* examples of naturally occurring anti-microbial substances along with the foods in which they present. 4

5. (a) Write short notes on (any *three*) : 3×5=15
- (i) Spoilage of eggs
 - (ii) Pasteurization
 - (iii) Probiotic
 - (iv) Indices of food quality.
- (b) Name the microorganisms involved in the production of the following foods (any *three*) : 3×1=3
- (i) Cheddar cheese
 - (ii) Acidophilus milk
 - (iii) Soy sauce
 - (iv) Tempeh.
6. (a) Explain the following (any *three*) : 3×2=6
- (i) Ropiness of bread
 - (ii) Bacterial soft rot of vegetables
 - (iii) Stormy fermentation of milk
 - (iv) Surface taint of butter.
- (b) Write the mode of action of the following (any *three*) : 3×2=6
- (i) Ethylene oxide
 - (ii) Sugar
 - (iii) Nitrate
 - (iv) Benzoate.
- (c) Describe hydrostatic pressure processing as a food preservation method.