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S. No. of Question Paper : 5378

Unique Paper Code : 2534001001

Name of the Paper : Food Fermentation and Preservation Techniques

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

Semester : II, Part-I (UGCF)

Duration : 2 Hours

Maximum Marks : 60

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

Attempt any five questions

All questions carry equal marks.

Attempt all parts of a question together.

1. (a) Briefly describe the role of *Aspergillus* mould in food production and spoilage ? 4
- (b) How does water activity and temperature affect the growth of microorganism ? 3+3=6
- (c) What are probiotics ? 2
2. Write the substrate and the microorganism involved in the production of the following fermented food products (any six) : 6×2=12
 - (i) Dosa
 - (ii) Tempeh
 - (iii) Red Wine
 - (iv) Beer

P.T.O.

(v) Blue Cheese

(vi) Kanji

(vii) Soya Sauce.

3. (a) Discuss the mode of action of the following preservatives (any *three*) :

2×3=6

(i) Nitrate

(ii) Bacteriocin

(iii) Salt

(iv) Benzoate.

(b) Enlist various physical methods of food preservation and explain in brief any *one* of the methods studied by you.

2+4=6

4. Write short notes on the following (any *four*) :

4×3=12

(i) D-value

(ii) Modified atmosphere packaging

(iii) Starter culture

(iv) Classification of food on the ease of spoilage

(v) Production of Kefir.

5. Differentiate the following (any *four*) :

4×3=12

(i) Canning and Pasteurization

(ii) Curd and Yogurt

(iii) Slow and Quick Freezing

(iv) Lyophilization and Refrigeration

(v) Oriental and Indigenous fermented food.

6. (a) Expand the following terms (any *four*) : 4
- (i) LTLT
 - (ii) GRAS
 - (iii) UHT
 - (iv) FDA
 - (v) PDA.
- (b) Write the name of the microorganism/s and the production process involved in formation of sauerkraut through a flow chart. 6
- (c) What is blanching ? 2