

AU-1145

M.Sc. (Home Science) Food Science and Nutrition (Semester—II) Examination

FOOD MICROBIOLOGY

Paper—122FM50

Time : Two Hours]

[Maximum Marks : 45

Note :— ALL questions are compulsory and carry equal marks.

1. Do as directed :

(1.1) Choose the appropriate word from the following and fill in the blanks :

(Fungi, Bacteria, Anaerobes, Yeast, Algae)

(1.1.1) Green _____ can manufacture their own food by photosynthesis. 1

(1.1.2) Microorganisms which obtain their energy without oxygen are called as _____. 1

(1.1.3) _____ can grow in highest concentrations of sugar. 1

(1.1.4) _____ includes both yeast and moulds. 1

(1.2) Name four factors necessary for multiplication of microorganisms. 2

(1.3) Name four beneficial effects of micro organisms in foods. 2

(1.4) Define food micro-organisms. 1

2. Attempt any *one* :

(2.1) What is spoilage of food ? Write in detail about the causes of food spoilage. 9

(2.2) Discuss in detail about factors affecting food spoilage and changes in foods caused by microbes. 9

3. Answer the following :

(3.1) Contamination of food by handler 2

(3.2) Contamination of food through air 2

(3.3) Cross contamination 2

(3.4) Vector transmission 2

(3.5) Vehicle transmission. 1

4. Solve the following :

(4.1) State true or false :

- (4.1.1) The neurotoxin produced by *Clostridium botulinum* is very mild toxin. 1
- (4.1.2) Food borne illness may be caused by poor sanitary practices. 1
- (4.1.3) Bacterial contamination is the most common cause of food poisoning in the catering industry. 1
- (4.1.4) Hand washing practices are not helpful in preventing food borne illnesses. 1

(4.2) Match the Column A with Column B :

(A)	(B)	
(i) Viral hepatitis	(a) Bacteria	1
(ii) <i>Salmonella typhi</i>	(b) Parasite	1
(iii) Tapeworm	(c) Infective diarrhoea	1
	(d) Tuberculosis	

(4.3) List four common symptoms of food borne illnesses. 2

5. Attempt any *one* :

- (5.1) What is Hazard Analysis and Critical Control Point (HACCP) ? Write in detail about the principles involved in HACCP. 9
- (5.2) What is Good Hygiene Practice (GHP) ? Discuss in detail about the importance of sanitation and hygiene in foods. 4