

2017

M.Sc. Part-I Examination

DIETETICS AND COMMUNITY NUTRITION MANAGEMENT

PAPER—III (Unit-5)

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Question No. 1 and any four from the rest.

1. Answer any *five* questions from the following : 5×2
- (a) Define blanching.
 - (b) State two demerits of irradiation technology.
 - (c) Cite example of two chemical methods used in food processing.
 - (d) Write the full forms of PHF and TCS foods.
 - (e) What is liquid-immersion freezing.

(Turn Over)

- (f) What are the differences between "hot smoking" and "cold smoking" of foods ?
- (g) What do you understand by "cold shortenings" during freezing of animal-based foods ?
- (h) Give two differences between contact freezing and cryogenic freezing.
2. (a) Explain the hurdle concept of food protection and how does it affect food safety ?
- (b) What do you understand by aseptic packaging ?
- (c) What are the advantages of using non-ionising radiations to generate heat in food drying technologies ? 4+3+3
3. (a) Discuss the methods of reducing water activity in foods.
- (b) Explain how fermentation is used to preserve foods and protect them from pathogens.
- (c) What do you understand by microbial interference or antagonism in food preservation technology ? 4+4+2

4. (a) Describe the preservation methods used in meat processing.
- (b) What do you understand by food preservative?
- (c) Discuss a method of processing of vegetables mentioning its advantages and disadvantages. 4+2+4
5. (a) State the principles underlying the destruction of microorganisms by radiation.
- (b) Write the effects of irradiation on food constituents.
- (c) Mention the effects of microwaves on foods. 4+4+2
6. (a) Describe the potential sources of hazards with milk and dairy products.
- (b) Describe the methods used to preserve milk.
- (c) Name two food additives. 4+4+2
7. (a) Define the terms intrinsic and extrinsic parameters with respect to microbial growth in foods.
- (b) Describe several scenarios of cross-contamination of foods.
- (c) Enlist the types and sources of the toxic chemicals associated with food processing, packaging, storage and preparation. 3+3+4

8. (a) Distinguish the differences between food allergies and food intolerance, and explain their relevance to food safety.
- (b) Give examples of two mycotoxins and their food source.
- (c) Mention two differences between pasturization and blanching of foods. 4+3+3
9. (a) Describe the major food safety management tools for processing food.
- (b) What do you understand by Good Manufacturing Practices (GMP) ?
- (c) What is the difference between low-temperature long-time pasturization (LTLT) and high-temperature short-time (HTST) pasturization ? 3+2+5
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