REV-01 BFST/19/24 2022/07

B.Sc. FOOD SCIENCE & TECHNOLOGY SECOND SEMESTER BASIC & FOOD MICROBIOLOGY

BFST - 203

(Use Separate Answer Scripts for Objective & Descriptive)

Duration: 3 hrs. Full Marks: 70

(PART-A: Objective)

Time: 20 min. Marks: 20

Choose the correct answer from the following: 1X20 = 201. is the phase of bacterial curve where the bacteria show maximum growth. a. Log b. Stationary c. Lag d. Senesence 2.is the time required for one log cycle reduction in microbial count at given temperature. b. F value a. Z value c. D value d. TDT value 3. is the temperature required for 90% reduction in microbial count. a. Z value b. F value c. D value d. TDT value 4. Burnt or caramel flavor of milk is due to a. Streptococcus lactis b. E.coli d. P. Mucidolens c. P. Fragi 5. Green rot in eggs is due to a. E.coli b. Pseudomonas flourescence c. P. Mucidolens d. Acinetobacter 6. Pink colour of baked product is due to a. Monilla sitophila c. Aspergillus niger d. P. Mucidolens 7. Black rots in egg is due to a. E.coli b. Proteus c. P. Mucidolens d. Monilla sitophilla 8. Blue mold rot in citrus fruits occur due to a. Penicillium digitatum b. E coli d. Phytopthora bremia c. Monilla sitophilla

a. Membrane filters

c. Depth filters

9.is used in burn unit in hospitals for eliminating pathogens from air supply.

b. HEPA filters

d. All of the above

b. Alcohol a. Phenolics d. Chlorine c. Phenol 11. The protein from which hook and filaments of flagella are composed of, is b. Flagellin a. Keratin d. Casein c. Gelatin 12. The cocci which mostly occur in single or pairs are b. Diplococci a. Streptococci d. None of these c. Tetracocci 13. Bacterial cell wall is made up of b. Cellulose a. Chitin d. All of the above c. Peptidoglycan 14. Mycotoxins are produced by a. Bacteria b. Fungi c. Virus d. Protozoans 15. Aflatoxin is produced by the fungus b. Aspergillus niger a. Aspergillus flavus c. Aspergillus marneffei d. Aspergillus albicans 16. Virus require..... for growth a. Bacteria b. Plants c. Animals d. Living cells 17. Which of these are not eukaryotic? a. Plants b. Fungi c. Protists d. Monerans 18. Which of these are absent in plant cell? a. Large central vacuole b. Cell wall d. Plastid c. Centriole 19. Which of these structures of the phospholipid bilayer is correctly matched with its property? b. Phosphate head - hydrophilic a. Phosphate head - hydrophobic d. Lipid tail - Polar c. Lipid tail - hydrophilic 20. Which of these molecules require a carrier protein to pass through the cell membrane? a. Small neutral solutes b. Water d. Non - polar molecules c. Polar molecules

10. is used for purifying drinking water.

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(PART-B : Descriptive)

Time: 2 hrs. 40 min.

Marks: 50

[Answer question no.1 & any four (4) from the rest]

1.	Explain food infection and food intoxication with proper examples.	10
2.	What do you mean by microbial growth? Write down the different phases of microbial growth in details.	2+8=10
3.	Write short note on : a. Source of contamination of milk b. Method of preservation of microorganisms	2×5=10
4.	Describe the different physical and chemical antimicrobial agents used.	10
5.	Discuss different kinds of t microbial spoilage of eggs and fruits and vegetables with their causative microorganisms.	5+5=10
6.	a. Distinguish between Eukaryote and prokaryotes .b. Explain fluid mosaic model	5+5=10
7.	Describe bacterial reproduction with proper diagram.	10
8.	a. Explain Whittaker's five kingdom classification.b. Write short notes on mycotoxins .	5+5=10

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