

B.E. FTBE 2ND YEAR 2ND SEMESTER EXAMINATION- 2017

MICROBIOLOGY- I I

Time: 3hrs

Full Marks: 100

Use Separate Answer Script for each Part

(50 marks for each part)

PART- I (50 Marks)

Answer question 1 and any two from the rest

1. Explain the following: 4×5
 - A) One method of determination of total viable cells in a sample.
 - B) Antimicrobial constituents of food.
 - C) Microbial pollution of air.
 - D) Effect of moisture content of food on growth of microorganism.

2. A) Define with example: Intrinsic factor, implicit factor, symbiosis and synergism. 8

B) State the causes of spoilage of food. State the objectives of microbiological testing of food. Explain with example about selective media 2+3+2

3. A) What is meant by water borne diseases? Give example with organism of two water borne diseases. 1.5+3

B) Define with example coli form organisms. Explain the method for determination of coli form organism in a water sample. 2.5 +8

4. Write short notes on (any 3) 3×5
 - A) Effect of pH of food on growth of microorganism
 - B) IMVIC test
 - C) Effect of storage temperature of food on growth of microorganism
 - D) Dye reduction technique for microbial examination of food

B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING SECOND YEAR SECOND SEMESTER – 2017

Subject: MICROBIOLOGY- II

Time: Three Hours

Full Marks: 100

Use Separate Answer Scripts for Part I and Part II

Part II (Marks-50)

Question No.1 is Compulsory and answer any ***three*** questions from rest

1. Write about any **one**: 5
 - a) Whittaker's Five Kingdom System
 - b) Division of bacteria as per Bergey's Manual
2. Define: Bacteriostatic agent, Bactericidal agent, Antiseptic, Disinfectants, Sanitizer. Write the name of any **Five** chemical antibacterial agents with their mode of action. 5+10=15
3. Define and write the significance of D value and Z value. What are cold sterilization and fractional sterilization? How we get sterility by those two methods. 5+5+5=15
4. What is food poisoning? What are the causes of food poisoning? Write about any two type of Bacterial food poisoning. Give two examples of biological food poisoning. 2+3+5+5=15
5. How milk quality is determined by MBRT and Resazurin Test? Explain the method of the determination of efficiency of pasteurization used in Dairy Industry? 5+5+5=15
6. What is Mycotoxin? Name any two type of Mycotoxin with their source organism. Write about the production of a
 - a) Milk based fermented food
 - b) Cereal based fermented food.

1+2+6+6=15