

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc.(BT) (2013 to 2017) (Sem.-2)

GENERAL MICROBIOLOGY

Subject Code : BSBT-104

Paper ID : [F0208]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. SECTION-C contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A**Q1. Answer briefly :**

- a) What is tyndallisation?
- b) Mention any one Gram positive and Gram negative bacterium.
- c) What is the difference between facultative and obligate aerobes?
- d) What is a synchronous growth in bacteria?
- e) What is the doubling time of bacteria?
- f) Name any two dyes used for staining specimen for observing under light microscope.
- g) What is the difference between a monoauxic and diauxic growth?
- h) Which sterilization technique will be used for :
 - 1) Vitamins
 - 2) Nutrient medium
- i) What are thermophiles? Name any one bacterium.
- j) Who is known to be the Father of Microbiology?

SECTION-B

Q2. Briefly describe about **any one** :

- a) Bright field microscopy
- b) Electron Microscopy

Q3. What is sterilization? Discuss about different physical methods used for sterilization.

Q4. What is the difference between antibiosis and symbiosis? Explain it with some examples.

Q5. What are nitrogen fixing bacteria? How do they fix atmospheric nitrogen?

Q6. What is difference between Gram positive and negative bacteria?

SECTION-C

Q7. Describe different methods used for classification of bacteria.

Q8. Write short notes on **any two** :

- a) Photoautotrophs
- b) Normal Microflora of human skin
- c) Heterologous protein production in *E.coli*
- d) Chemostat

Q9. Write a brief history about the contribution of L.Pasteur to Microbiology.