

2025

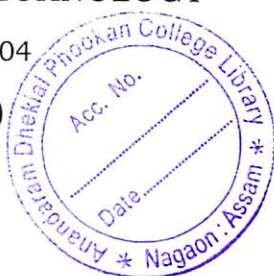
HERBAL PROCESSING TECHNOLOGY

Paper : HPT0400204

(Microbiology)

Full Marks : 45

Time : 2 hours



*The figures in the margin indicate full marks
for the questions*

1. Fill in the blanks (any five) : 1×5=5
- (a) Study of microorganisms called ____.
 - (b) Example of aerobic bacteria is ____.
 - (c) *E. coli* is one type of gram-____ bacteria.
 - (d) In autoclave, the principle involved is ____ (dry heat/moist heat/steam under pressure).
 - (e) The pigment present in red algae is ____.
 - (f) Anthrax is a ____.
 - (g) The largest protozoa is ____.
 - (h) Agar is obtained from ____.

(2)

2. Answer the following questions (any five) :

2×5=10

- (a) Write two examples of pathogenic bacteria.
- (b) What is ribosome?
- (c) Write the differences between gram-positive and-negative bacteria.
- (d) Define cytoplasm of prokaryotic cell.
- (e) What are the constituents of culture media?
- (f) What is peptidoglycan?
- (g) Define differential media.
- (h) Write the branches of microbiology.
- (i) Write two examples of rod-shaped bacteria.
- (j) Define sterilization.

3. Write notes on any four of the following :

5×4=20

- (a) Isolation of gram-positive micro-organisms
- (b) Differences between gram-positive and gram-negative bacteria

(3)

- (c) Microbial culture media
- (d) Functions of phospholipids
- (e) Endoplasmic reticulum
- (f) Cell wall of bacteria
- (g) Differences between bacteria and virus
- (h) Cell permeability

4. Answer any one of the following questions : 10

- (a) Briefly explain the components of prokaryotic cells and its functions.
- (b) Explain the common isolation techniques of bacteria from waste water.
- (c) Describe the preparation of microbial culture media with proper explanation.
- (d) Write about the classification of gram staining.
- (e) Write the future prospectus of microbiology and its various applications.
