

B.Sc. Semester - 6 (CBCS) Examination
March/April-2026 (NEW COURSE)
Physiology, Biochemi, Biostat. (Core (New))

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

- Que.1(A) Answer the following objective type questions (04)
- 1) Give the term: It refers to the physiological response of plants to changes in day length.
 - 2) Define: Xerophytes
 - 3) Mention True or False: Guttation take place usually night and early morning in plants.
 - 4) Cohesion-Adhesion theory given by _____
- Que.1(B) Answer in brief (Any one out of two) (03)
- 1) Define: Short day Plant and Long day Plant.
 - 2) Describe the factors affecting the rate of transpiration.
- Que.1(C) Write a Note (Any one out of two) (07)
- 1) Explain: Mechanism of Ascent of Cell-sap.
 - 2) Describe water stress in plants.
- Que.2(A) Answer the following objective type questions (04)
- 1) Which types of alkaloid are present in coffea?
 - 2) Write formula of Glucose.
 - 3) Give the name of different structural Protein.
 - 4) Lipids are made up of _____
- Que.2(B) Answer in brief (Any one out of two) (03)
- 1) Describe: Alkaloids
 - 2) Describe: Lipid structure and function
- Que.2(C) Write a Note (Any one out of two) (07)
- 1) Write the structure of Proteins.
 - 2) Classify Carbohydrates.
- Que.3(A) Answer the following objective type questions (04)
- 1) Define: Variance
 - 2) Calculate mean of these data: 2, 2.1, 3.5, 3, 4
 - 3) Write any two merits of mean.
 - 4) Write formula of coefficient of variation.
- Que.3(B) Answer in brief (Any one out of two) (03)
- 1) Find out Standard deviation for following distribution:
11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
 - 2) Write merits of means.
- Que.3(C) Write a Note (Any one out of two) (07)
- 1) Calculate mean, SD, Coefficient of variation:

Class Interval	Frequency
126-130	25
131-135	40
136-140	7
141-145	22
146-150	6

- 2) Find out median class of following data:

Class Boundaries	15-25	25-35	35-45	45-55	55-65	65-75
Frequency	4	11	19	14	0	2

- Que.4(A) Answer the following objective type questions (04)
- 1) Cell-wall of E.Coli is made up of _____
 - 2) Which two stains are used in gram staining?
 - 3) Write two symptoms of Covid-19 virus infection.
 - 4) Write two name of antibiotics.
- Que.4(B) Answer in brief (Any one out of two) (03)
- 1) Explain: Gram Staining
 - 2) Explain: Culture Media
- Que.4(C) Write a Note (Any one out of two) (07)
- 1) Describe: Structure of Covid-19 virus.
 - 2) Ultra Structure of E.coli.
- Que.5(A) Answer the following objective type questions (04)
- 1) Whip Smut disease is caused by which organism?
 - 2) Write four symptoms of disease.
 - 3) Give name of any method for control of plant disease.
 - 4) Red rot of sugarcane cause by _____
- Que.5(B) Answer in brief (Any one out of two) (03)
- 1) State the system and control for Tikka disease.
 - 2) Explain: Red rot of Sugarcane.
- Que.5(C) Write a Note (Any one out of two) (07)
- 1) Explain: Citrus canker
 - 2) Describe different methods of plant disease control.
