



PA-003-001612 Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

March / April - 2020

B - 602 : Botany

*(Plant Phy., Bio Chem., Bio Sta., Microbio., And Bio Diversity)
(Old Course)*

Faculty Code : 003

Subject Code : 001612

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) This question paper contains three question. all are compulsory.
(2) Draw neat and labeled diagram wherever necessary.
(3) Figure to the right indicate marks.

1 Write answer in very short : **20**

- (1) What is holoenzyme ?
- (2) What is bio-diversity ?
- (3) Phytochrome is used in _____.
- (4) Write the one example of simple protein.
- (5) Yeast help in the production of _____.
- (6) Find the mode: 18,21,23,23,25,25,25,27,29,29.
- (7) What is the shape of E.coli?
- (8) What is Ex -situ conservation of bio diversity?
- (9) Name one bacteria used in vinegar industry.
- (10) The diversity of habitat over the total geographical area is _____.
- (11) What is odd out of the following four?
Glucose,galactose,mannose,fructose.

(12) Vernalisation occurs in response to _____.

(13) Photoperiodism influences is _____.

(14) Chhese, curd, and butter are produced with the use of _____.

(15) Seeds of some plants do not germinate even under favourable condition due to _____.

(16) What is oligopeptide?

(17) Who introduced concept of standard deviation?

(18) Write the one example of polysaccharides.

(19) Write the function of flagella.

(20) Write the one example of simple lipid.

2 (A) Write answer in short : (Any **Three**) **6**

- (1) Define : chi-square test.
- (2) Discuss : primary structure of protein.
- (3) Explain the practical application of vernalisation.
- (4) Distinguish between mean and median.
- (5) Write any two applications of microbes in food processing.
- (6) Short note of pausurasasation.

(B) Write answer in brief : (Any **Three**) **9**

- (1) Describe types of phytochromes.
- (2) Describe the properties of alkaloids.
- (3) India is great hotspot of bio- diversity justify.
- (4) Explain the concept of pure culture.
- (5) Find out the mean and mode of following numbers :
6,1,3,2,3,4,7,9,1,2,6,2,3
- (6) Give the merits and demerits of standard deviation.

(C) Write answer in detail : (Any **Two**) **10**

- (1) Write the essay on competitive inhibition of enzyme.
- (2) Describe the ultra structure of T4 phages.

(3) Discuss the conservation strategies of bio diversity of plant in their natural habitat.

(4) Explain microbial culture medium.

(5) Write the cause for seed dormancy.

3 (A) Write answer in short : (Any **Three**) **6**

- (1) Explain biological function of florigen.
- (2) What is batch culture ?
- (3) Describe advantages of seed dormancy.
- (4) What are the unique features of Indian bio diversity?.
- (5) Calculate the standard deviation of following data: 12,14,16,18,20.
- (6) What is growth kinetics?.

(B) Write answer in brief : (Any **Three**) **9**

- (1) Explain : phytochrome.
- (2) Describe the primary and tertiary structure of protein.
- (3) Discuss bio diversity for human welfare.
- (4) Explain : gram staining method.
- (5) Explain : semi solid media.
- (6) How farmers can overcome problems of seed dormancy?

(C) Write answer in detail : (Any **Two**) **10**

- (1) Explain in detail alcohol fermentation.
- (2) Explain : method of sterilization in microbiology.
- (3) What is protein? Discuss the the biological function of protein.
- (4) Explain : enzyme inhibition and it's types.
- (5) Describe the classification of lipid.