



DQ-003-2016047

Seat No. _____

B. Sc. (Sem. VI) (CBCS) (W.E.F. 2019) Examination

April – 2022

B-602 : Botany

*(Plant Physiology, Biochemistry, Biostatistic,
Microbiology And Biodiversity)*

(New Course)

Faculty Code : 003

Subject Code : 2016047

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) This question paper contains Five questions. All questions are compulsory.
(2) Write answers of all the questions in main answer sheet
(3) Draw neat and labeled diagram wherever necessary.
(4) Figures to the right side indicate full marks for the question

- 1 (A) Objective type questions : 4
- (1) Write the name of elements which are essential for photophosphorylation
 - (2) Which plant hormone is found in gaseous form?
 - (3) Who gave the cohesion-tension theory first ?
 - (4) Which enzyme is maximum biomass producer on the earth?
- (B) Answer in brief : (Any **One**) 2
- (1) Write in brief about functions of ethylene
 - (2) Write the chart of CAM pathway
- (C) Answer in detail : (Any **One**) 3
- (1) Write a note on ascent of sap
 - (2) Write a note on cytokinin

- (D) Write a note on : (Any **One**) **5**
- (1) Explain in detail C_3 cycle
 - (2) Describe pentose phosphate pathway
- 2** (A) Objective type questions : **4**
- (1) Which bond is present between two amino acid?
 - (2) Give the example of triose carbohydrates.
 - (3) True or false : Lipids are soluble in water
 - (4) Give the name of class of carbohydrate which cannot be hydrolysed further ?
- (B) Answer in brief : (Any **One**) **2**
- (1) Write about primary structure of protein
 - (2) Explain in brief about starch
- (C) Answer in detail : (Any **One**) **3**
- (1) Write function of protein
 - (2) Write any six functions of carbohydrates
- (D) Write a note on : (Any **One**) **5**
- (1) Define enzyme. Explain enzyme inhibition with diagram
 - (2) Describe classification of monosaccharides
- 3** (A) Objective type questions : **4**
- (1) Give the name of scientist, discovered Student's t-test
 - (2) Write name of types of central tendency.
 - (3) Define Mode.
 - (4) What is population?

(B) Answer in brief : (Any **One**) 2

- (1) Protein value of 10 Gram plants were recorded as :
5.2 mg, 5.3 mg, 5.6 mg, 5.7 mg, 5.4 mg, 5.2 mg,
5.3 mg, 5.3 mg, 5.4 mg and 5.2 mg. Find out the
mean value of given data.
- (2) Write the demerits of mean

(C) Answer in detail : (Any **One**) 3

- (1) Find out the arithmetic mean from data.

<i>No. of Grains per plant (x)</i>	0	1	2	3	4	5	6
<i>No. of plants (f)</i>	7	7	10	5	3	2	1

- (2) Write a note on Lottery method

(D) Write a note on : (Any **One**) 5

- (1) The following data are the length of the 10 plants
in cm. Calculate the standard deviation :
60, 60, 61, 62, 63, 63, 63, 64, 64, 70
- (2) Find out Standard Deviation of the following
data :

<i>Size of item</i>	6	7	8	9	10	11	12
<i>Frequency</i>	3	6	9	13	8	5	4

4 (A) Objective type questions : 4

- (1) E.coli get parasitized by which type of
bacteriophage?
- (2) Who discovered gram staining method?
- (3) Define agar slant culture.
- (4) Write the function of agar.

(B) Answer in brief : (Any **One**) 2

- (1) Write in brief about medium of alcohol production.
- (2) Describe structure of T₄ phages

- (C) Answer in detail : (Any **One**) **3**
- (1) Explain spread plate method.
 - (2) Write a note on Gram staining method
- (D) Write a note on : (Any **One**) **5**
- (1) Explain in detail about heat sterilization
 - (2) Describe the ultra structure of E.coli with diagram
- 5** (A) Objective type questions : **4**
- (1) The first biosphere reserve of India was established in the year _____
 - (2) In which state Ranthambore National Park located?
 - (3) Give the full form of IUCN
 - (4) In West Bangal, which National Park is located?
- (B) Answer in brief : (Any **One**) **2**
- (1) What is β – diversity ?
 - (2) Write any two objectives of Biosphere Reserve Programme
- (C) Answer in detail : (Any **One**) **3**
- (1) Write the silent features of National parks
 - (2) Write in brief the causes of extinction of species leads by human activity
- (D) Write a note on : (Any **One**) **5**
- (1) Explain in detail different Zones of biosphere reserves
 - (2) Describe about key Stone species in conservation strategy