



DQ-003-1016047

Seat No. _____

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

April – 2022

B-602 : Botany

**(Plant Physiology, Biochem, Biosta, Micro, Biodiversity)
(Old Course)**

Faculty Code : 003

Subject Code : 1016047

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

[Total Marks : 70

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

- 1 (A) Objective : 4
- (1) Optimum temperature for seed germination is _____
 - (2) Which fungus gibberellins was first isolated?
 - (3) The pentose phosphate pathway the major products are _____
 - (4) Write full form : ppp.
- (B) Answer in brief : (Any **One**) 2
- (1) Give the two function of auxins.
 - (2) Write a name of only different phase of germination.
- (C) Answer in detail : (Any **One**) 3
- (1) Describe the any six physiological function of ethylene.
 - (2) Explain six physiological function of cytokinins.

- (D) Write a note on : (Any **One**) **5**
- (1) Describe the pentose phosphate pathway.
 - (2) Explain the Auxin.
- 2** (A) Objective : **4**
- (1) Define : enzyme
 - (2) What is basic unit of protein?
 - (3) Phytochrome is used in _____
 - (4) What is alkaloid?
- (B) Answer in brief : (Any **One**) **2**
- (1) Write note on properties of lipids.
 - (2) Write the two function of carbohydrates.
- (C) Answer in detail : (Any **One**) **3**
- (1) Explain the information about conjugated protein.
 - (2) Describe the properties of alkaloids.
- (D) Write a note on : (Any **One**) **5**
- (1) Give the primary structure of protein.
 - (2) Describe the competitive inhibition of enzymes.
- 3** (A) Objective : **4**
- (1) Define : mode.
 - (2) Define :median.
 - (3) Write the types of central tendency.
 - (4) Define: mean.
- (B) Answer in brief : (Any **One**) **2**
- (1) Write note on cluster sampling.
 - (2) Write the chi-square test.

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

- (1) Explain merits of mode.
- (2) Calculate the standard deviation of following
11, 13, 15, 17, 19, 21.

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

- (1) Calculate the mean, median, mode, SD, and coefficient variation from following data :

<i>Class interval</i>	10 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60 – 69	70 – 79
<i>Frequency</i>	6	18	10	15	5	4	1

- (2) What is chi-square test? explain degree of freedom and how it calculated?

4 (A) Objective : **4**

- (1) What is the shape of E.coli?
- (2) Name two bacteria used in vinegar industry.
- (3) Curd and butter are produced with the use of _____
- (4) What is solid media?

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

- (1) Write the on batch culture.
- (2) Write the any two application of microbes in food processing.

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

- (1) Describe the gram staining methods.
- (2) Explain the concept of pure culture

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

- (1) Describe the ultra structure of E.coli
- (2) Describe the method of sterilization in microbiology.

- 5 (A) Objective : 4
- (1) What is species diversity?
 - (2) How is biodiversity important for ecosystem functioning?
 - (3) Which wild life sanctuary is located in rajasthan?.
 - (4) Define:biodiversity.
- (B) Answer in brief : (Any **One**) 2
- (1) Write the note on β –diversity
 - (2) Give significance of seed dormancy.
- (C) Answer in detail : (Any **One**) 3
- (1) Explain causes for seed dormancy.
 - (2) Give the detail wild life sanctuary.
- (D) Write notes on : (Any **One**) 5
- (1) Describe the conservation strategies of biodiversity of plant in their natural habitat.
 - (2) Explain the different zone of biosphere reserves.
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