

B.Sc. Semester - 6 (CBCS) Examination

March/April -2020

PLANT PHY,BIOCHEM,BIOSTAT,MICROBIO AND BIODIVERSITY (CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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1. (A) Answer in detail : (Any 1 out of 2) 07
- (1) Give information about the factors affecting germination.
 - (2) Explain in detail -Auxin.
1. (B) Answer in brief : (Any 1 out of 2) 04
- (1) Write short note on – Pentose phosphate Pathway.
 - (2) Write the physiological functions of ethylene.
1. (C) Answer the following Objective type questions : (Any 3 out of 5) 03
- (1) Write the full form of IAA.
 - (2) First part which comes out of a seed is
 - (3) From which fungus Gibberellins was first isolated?
 - (4) Which hormone promoting cytokinesis in plants?
 - (5) Mention true or false: abscisic acid was isolated for first time from mature cotton fruits.
2. (A) Answer in detail : (Any 1 out of 2) 07
- (1) Describe – Classification of monosaccharides.
 - (2) Describe – Primary structure of protein.
2. (B) Answer in brief : (Any 1 out of 2) 04
- (1) Explain enzyme inhibition.
 - (2) Write the functions of proteins.
2. (C) Answer the following Objective type questions : (Any 3 out of 5) 03
- (1) Which substances is building block of Lipids?
 - (2) Define – Conjugated protein.
 - (3)enzymes bring hydrolysis of various compounds
 - (4) Define Enzyme
 - (5) Write the general formula of monosaccharides.
3. (A) Answer in detail : (Any 1 out of 2) 07
- (1) Describe – Cluster sampling.
Chlorophyll percentage g/100 gm of leaf of *Ocimum* was recorded as 23, 22, 20, 24, 16,
(2) 17, 18, 19 and 21.
Calculate the **standard deviation**.

- 3. (B) Answer in brief : (Any 1 out of 2) 04**
- (1) Water holding capacity of 15 different soil was recorded as 60,64,62,76,70,74,70,84,82,72,76,84,78,84 and 86. Find out the mean of this series.
 - (2) Write the merits of mean.
- 3. (C) Answer the following Objective type questions : (Any 3 out of 5) 03**
- (1) What is sampling?
 - (2) Define – Mode.
 - (3) Write any two demerits of mean.
 - (4) Nth root of the product of n observation is known as
 - (5) Find out the mode of the following numbers : 4,4,5,9,10,8,1,2,4,9,5,10,4,5,8,1,2.
- 4. (A) Answer in detail : (Any 1 out of 2) 07**
- (1) Discuss ultra-structure of E. Coli.
 - (2) Discuss the method of sterilization in microbiology.
- 4. (B) Answer in brief : (Any 1 out of 2) 04**
- (1) What is pure culture? Describe the pour plate and spread plate method.
 - (2) Write a note on T4 phage.
- 4. (C) Answer the following Objective type questions : (Any 3 out of 5) 03**
- (1) How many genes are present in E. coli bacteria?
 - (2) What is the role of Agar?
 - (3) Define Stationary Phase and Death Phase of Growth Curve.
 - (4) What is Negative Staining?
 - (5) What is solid Media?
- 5. (A) Answer in detail : (Any 1 out of 2) 07**
- (1) Describe different zones o biosphere reserves.
 - (2) Justify the statement Biodiversity is for “Human Welfare”
- 5. (B) Answer in brief : (Any 1 out of 2) 04**
- (1) Write a note - NBPGR
 - (2) Explain in detail – Wild life sanctuary.
- 5. (C) Answer the following Objective type questions : (Any 3 out of 5) 03**
- (1) Which are common flora and fauna of Gir National Park?
 - (2) Where is the Sunderbans is located?
 - (3) Define Biodiversity.
 - (4) What is Species diversity?
 - (5) Which wild life sanctuary is located in Rajasthan?
