

B.Sc. Semester - 2 (CBCS) Examination
March/April- 2019 (Old Course)
BOTANY (CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Q – 1 Answer the following questions as per the instruction**(a) Answer the questions very shortly****(04)**

1. Give the different region of root
2. The leaf margin with rounded teeth is known as _____
3. State the different parts name of leaf.
4. Give the function of root cap?

(b) Answer shortly any one**(02)**

1. Describe the opposite phyllotaxy.
2. Give the name of palmately compound leaf types.

(c) Answer the following question (any one)**(03)**

1. Describe the types of leaf stipules.
2. Describe the different types of leaf margin.

(d) Answer the following question in detail (any one)**(05)**

1. Describe the different leaf shapes.
2. Discuss leaf venation.

Q – 2 Answer the following questions as per the instruction**(a) Answer the questions very shortly****(04)**

1. State the function of flower?
2. Give the name of cymose inflorescence
3. Define the function of corolla?
4. Pomegranate and Apple are the example of _____ fruit type.

(b) Answer shortly any one**(02)**

1. Define corymb type of inflorescence with an example.
2. Define Raceme type of inflorescence with an example.

(c) Answer the following question (any one)**(03)**

1. Describe monochasial cyme inflorescence.
2. Describe Cyathium type of inflorescence.

(d) Answer the following question in detail (any one)**(05)**

1. What is calyx? Discuss its different types and functions.
2. What is corolla? Discuss its different types and functions.

Q – 3 Answer the following questions as per the instruction**(a) Answer the questions very shortly****(04)**

1. Give one difference between polypetalae and gamopetalae
2. The scientific name of Jasud is _____
3. The scientific name of Lal Karen (red oleander) is _____
4. Give the name of scientists who has given natural plant classification system

- (b) **Answer shortly any one** (02)
1. Give any two distinguishing characters and floral diagram of Nyctaginaceae family
 2. Give the demerits of Bentham and Hooker's system classification
- (c) **Answer the following question (any one)** (03)
1. Give the merits of Bentham and Hooker's system classification.
 2. Describe distinctive characters of Poaceae family.
- (d) **Answer the following question in detail (any one)** (05)
1. Describe Malvaceae family with floral diagram and floral formula.
 2. Describe Apocynaceae family with floral diagram and floral formula.

Q –4 Answer the following questions as per the instruction

- (a) **Answer the questions very shortly** (04)
1. Give the full form of MS media used for plant tissue culture.
 2. Define chromatography
 3. Define resolution power of microscope.
 4. The first TEM was designed by_____.
- (b) **Answer shortly any one** (02)
1. State principle of chromatography
 2. State principle of TEM
- (c) **Answer the following question (any one)** (03)
1. Describe structural design of pH meter.
 2. Give applications of tissue culture techniques.
- (d) **Answer the following question in detail (any one)** (05)
1. Describe components of colorimeter
 2. Describe methods for plant tissue culture.

Q – 5 Answer the following questions as per the instruction

- (a) **Answer the questions very shortly** (04)
1. Who proposed β – Oxidation theory?
 2. True or false: Transcription occurs in Ribosomes
 3. Who is known as father of tissue culture?
 4. Define Rf value
- (b) **Answer shortly any one** (02)
1. Draw the flow chart for β - oxidation
 2. Explain mode of action of an enzyme.
- (c) **Answer the following question (any one)** (03)
1. Describe classification of amino acid.
 2. Describe structure of DNA.
- (d) **Answer the following question in detail (any one)** (05)
1. Describe transcription process.
 2. Describe DNA replication.
