DR. KANAILAL BHATTACHARYYA COLLEGE

B.Sc. Honours Examination (CBCS system)– 2021

Practical Examination
Semester-VI
Subject-BOTA
Paper: CC-13 (Plant physiology)

Time: 1 hour 30 min (10:00 A.M - 11:30 A.M) **Date: 3.8.2021**

Full marks-30

Answer **any three** of the following

1. Write the principle and method of "Determination of loss of water per stoma per hour". Comment on the expected outcome of this experiment. 3+5+2
2. Write the principle and method of "Relationship between transpiration and evaporation". Comment on the expected outcome of this experiment. 3+5+2
3. Write the principle and method of "Rate of imbibition of different types of seeds". Comment on the expected outcome of this experiment. 3+5+2
4. Write the principle and method of "Effect of temperature on absorption of water by storage tissue and determination of Q_{10}". Comment on the expected outcome of this experiment. 3+5+2
5. Write the principle and method of "Measurement of osmotic pressure by plasmolytic method". Comment on the expected outcome of this experiment. 3+5+2

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SEMESTER – VI (UNDER CBCS)

PRACTICAL – 2021

BOTANY – HONOURS

BOT-A-CC-14

PLANT METABOLISM

TIME: 2P.M – 3:30P.M

DATE: 04/08/2021

F.M – 30 **DURATION – 1Hr 30 Min**

Answer the followings (any three) **3X10**

1. What is the principle of chromatography? Write down the main requirements for separation of plastidial pigments from plant leaves. Describe the plant pigments separation by solvent and paper chromatography. Draw a diagram of plastidial pigments separation. **1+2+5+2**
2. Write down the basic principle of the experiment on effect of HCO3 concentration on oxygen evolution during photosynthesis in an aquatic plant. Write a requisition to perform this experiment. Describe the procedure stepwise and find out the result by giving an example. **1+2+4+3**
3. What is the basic principle of measuring the Oxygen uptake by respiring tissues? Make a requisition for this experiment. Write down the general procedure to perform for the experiment. With a result of this experiment make comments (the result whatever you learned from the lab book). **2+2+3+3**
4. What is the principle of TTC method for seed viability test? Write down the essential equipments and reagents for the seed viability test by TTC method. Describe the procedure. **2+3+5**
5. What are the essential pigments of plant? Write down the main requirements for chlorophyll estimation from green leaves. Describe the procedure of chlorophyll estimation from green leaves. **1+4+5**
6. What is RQ? What is the principle of RQ determination? Make a requisition for this experiment. Describe the procedure for the determination of RQ. **1+2+2+5**

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B.Sc. Honours Examination (CBCS system)– 2021

Practical Examination
Semester-VI
Subject-BOTA
Paper: DSE-A (Medicinal and ethnobotany)

Time: 1 hour 30 min (2:00 P.M - 3:30 P.M) **Date: 6.8.2021**

Full marks-30

Answer **any three** of the following

1. Write different chemical tests for Tannin. 10
2. Write different chemical tests for Alkaloid. 10
3. Mention with suitable diagram different microscopic features of *Zingiber* powder. 10
4. Mention with suitable diagram different microscopic features of *Holarrhena* powder. 10
5. Write histochemical tests for *Cucurma longa* and *Catharanthus*. 5+5

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SEMESTER – VI (UNDER CBCS)

PRACTICAL – 2021

BOTANY – HONOURS

BOT-A-DSE-B

NATURAL RESOURCE MANAGEMENT

TIME : 2P.M – 3:30P.M

DATE: 07/08/2021

F.M – 30 **DURATION – 1Hr30Min**

Answer the followings (any three) **3X10**

1. Write down the principle of estimation of foliar dust deposition on leaves. What are the requirements you need to perform for this experiment? Describe the procedure of the experiment. **2+3+5**
2. Write the main chemical reagents for the test of nitrate. How can you measure the nitrate from the soil by rapid test method? **4+6**
3. Write down the essential reagents and equipments for the estimation of organic carbon from soil. How can you measure the carbonate from soil? **4+6**
4. What is the principle for the estimation of TDS from water? Make a requisition for the estimation of TDS of water. Write down the procedure of TDS estimation of water. **2+3+5**
5. Mention the principle of domestic solid waste measurement. Describe the procedure of domestic solid waste estimation. How can you classify the domestic solid waste? What are impacts of solid waste on land? **2+4+2+2**