HIGHER SECONDARY PRACTICAL EXAMINATION- FEB/MARCH- 2020

BOTANY

HSE-II

Time: 1 ½ Hrs
Total Scores: 20

1. Prepare a **T.S** of the given specimen 'A' and identify giving reasons. **5 Scores**
Draw the ground plan and label the parts. Leave the preparation for valuation.

Preparation	2
Labelled diagram	1½
Identification	½
Reasons	1

2. Observe the given specimen 'B' **2 Scores**

a) Name the vegetative propagule	½
b) Which plant part is modified	½
c) Draw a neat labelled diagram	1

3. Identify the materials 'C' and 'D' at sight by giving reasons. **2 Scores**

Identication	½ x 2 =1
Reasons	½ x 2 =1

4. Identify the given stage **'E'** of mitosis and give reason **1 Score**

Identification	½
Reason	½

5. Write the aim of the experiment 'F'. Draw and label the parts. **1 ½ Scores**

Aim	½
Labelled diagram	1

6. Construct the floral formula of the given flower 'G' **1 ½Scores**

7. Write down the ecological interaction of the specimen **'H'** **2 Scores**

Identification of interaction	1
Description	1

8. Prepare a **C.S.** of the given specimen 'I'. Draw diagram and label any two parts. Leave the preparation for valuation. **2 Scores**

Section	½
Labelled diagram	1½

9. Ascertaining the awareness of concepts related to the experiment. **1 Score**

10. Practical diary **2 Scores**

SCHEME OF PRACTICAL EXAMINATION BOTANY- FEBRUARY 2020

1.A. Dicot stem,Monocot stem,Dicot root,Monocot root(any three materials should be provded) (Preparation-**2** Diagram-**1** Labelling-1/2(at least two main parts)Identification-1/2 Reasons-**1** (two features for stem/root and other two for dicot/monocot)

2.B. Vegetative propagules - Bulb,Offset,Rhizome,Runner,Sucker,Tuber(any five propagules should be provided) Name of propagule -1/2 which part modified-1/2 Diagram-1/2 Labelling-1/2 (at least two parts)

3.C. Microscopic slides-(Oscillatoria,Rhizopus,Spirogyra,Moss-protonema,Fern-prothallus) Macroscpic specimens(Agaricus,Sargassum,Funaria-gametophyte with sporophyte, Nephrolepis-sporophyte,Pinus male cone&female cone)-Any three microscopic & macroscopic specimens should be provided) Name of specimen & its specified part-1/2 any one reason for its identification -1/2.

D.Photograph of Bioreactor, Bt. Cotton, Cloning vector(Identification-1/2, any one reason for its identification-1/2)

4.E. Identification of any one stage of mitosis from the permanent slide mounting(use pointer eye piece)
(Identification of given stage-1/2,any one reason for its identification-1/2)

5.F. Physiological experiments(as per the syllabus)(at least any five experiments should be provided)) Aim of the given experiment-1/2, diagram-1/2, labelling-1/2

6.G. Single flower & L.S of flower(should be mounted on dissection microscope) belongs to Fabaceae, Solanaceae, &Liliaceae should be provided for each batch to construct the floral formula- **1** ½

7.H. Lichen,Cuscuta/Loranthus,Epiphyte(Identification of interaction-**1**, description-**1**)

8.I. Anther should be provided to take C.S.
(Section-1/2, diagram-**1**,(diagrammatic sketch of four lobed anther c.s/cellular diagram of single lobe) Labelling-1/2(any two parts)

9.Ask simple questions informally related to the physiological experiments done-**1**

10. Practical diary -**2**

***Issue individual materials for Q.no: 1A & 8 I.**
***Give separate additional sheet for answering spot at sight the materials C,D &collect the answer sheet immediately after answering.**