



**DR-003-1016048**

Seat No. \_\_\_\_\_

**B. Sc. (Sem. VI) (CBCS) (W.E.F. 2016) Examination**

**April - 2022**

**Botany : B - 603**

*(Instrumentation, Advanced Techniques in Biology, Forest & Forestry, Medicinal Plants & Economic Botany)*

*(Old Course)*

**Faculty Code : 003**

**Subject Code : 1016048**

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

[Total Marks : 70

- Instructions :**
- (1) Attempt all the questions.
  - (2) Answer with draw neat and labelled diagram wherever necessary.
  - (3) Figures to the right side indicated total marks for the questions.

- 1 (a) Answer the following objective type questions : 4
- (1) What is the role of Incubator in Microbiology Laboratory?
  - (2) In autoclave, pressure is maintained \_\_\_\_\_ psi.
  - (3) What is the speed of Low and High speed centrifuges?
  - (4) In angle type centrifuge, the holders and sample tubes are kept at an angle of \_\_\_\_\_ from the central axis.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the application of Incubator.
- OR**
- (2) Write significance of centrifuge.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Draw a labelled diagram of autoclave.
- OR**
- (2) Draw a labelled diagram of Incubator.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Write the principle and application of Autoclave.
- OR**
- (2) Explain structure and function of oven.

- 2 (a) Answer the following objective type questions : 4
- (1) What is the full form of PCR ?
  - (2) How many time is required to dry TLC plate ?
  - (3) If proteins are separated according to their electrophoretic mobility then the type of electrophoresis is:
  - (4) What is the use of gel electrophoresis buffer ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the principle of TLC.
- OR**
- (2) Write the functions of electrophoresis.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write the principle of PCR.
- OR**
- (2) Give information about the design of Electrophoresis.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Discuss - Gas chromatography.
- OR**
- (2) Give information about thin layer chromatography.
- 3 (a) Answer the following objective type questions : 4
- (1) Sapwood is rich in \_\_\_\_\_ content.
  - (2) Sal or conifer out of them which one is hardwood timber species ?
  - (3) Biosphere reserve programme was launched by the UNESCO in \_\_\_\_\_.
  - (4) How many Biosphere reserves are there in India in 2021 ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write only name of the three zones which is found in biosphere reserves.
- OR**
- (2) Define deforestation.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Give the name of any six wild life sanctuary of India.
- OR**
- (2) Write the importance of agroforestry.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Give the classification or forests.
- OR**
- (2) Give only 10 biosphere reserve name list with their state.

- 4 (a) Answer the following objective type questions : 4
- (1) *Vitex negundo* belongs to \_\_\_\_\_ Family.
  - (2) Write the scientific name of Neem.
  - (3) *Adhatoda vasica* belongs to \_\_\_\_\_ Family.
  - (4) Which plant parts of Tulsi are useful as medicines ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write any two uses of Tulsi.
- OR**
- (2) Write two medicinal value of Arduasi.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write three medicinal value of Eucalyptus with which plant part used.
- OR**
- (2) Write three medicinal value of Aswagandha.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain in detail Neem.
- OR**
- (2) Describe Uses of Bili.
- 5 (a) Answer the following objective type questions : 4
- (1) The common name of *Zea mays* is \_\_\_\_\_.
  - (2) Which fatty acids are generally present in Sesame ?
  - (3) Give scientific name of Green gram.
  - (4) Write scientific name of Cardamom.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the uses of Rice.
- OR**
- (2) Write two economic importance of Sesame.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write the uses of Wheat.
- OR**
- (2) Write the uses of Taj.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Describe -Maize in detail.
- OR**
- (2) Write scientific name, family and five economic importance of coffee.