



BBH-003-1016048 Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

July - 2021

Botany : B-603

**(Instrumentation, Advanced Techniques In Biology, Forest
And Forestry, Medicinal Plants And Economic Botany)
(New Course)**

Faculty Code : 003

Subject Code : 10160048

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

[Total Marks : 70

- Instructions :** (1) Attempt any five questions out of the following 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) Write the full form of RPM.
(2) What is the speed of Low and High speed centrifuges?
(3) Write three components of spectrophotometer.
(4) Beer's law states that the intensity of light decreases with respect to
- (B) Draw only (diagram) graphic representation 2
of a Spectrophotometer.
- (C) Write uses of Autoclave. 3
- (D) Describe principle, design and function of Centrifuge. 5
- 2 (A) Answer the following Objective type questions : 4
(1) What is centrifugal force?
(2) What is the role of Incubator in Microbiology Laboratory?

- (3) Mention true or false : Colorimeters are used to determine concentration of solutions.
- (4) Who developed the autoclave?
- (B) Draw a design of Autoclave. **2**
- (C) Write the application of spectrophotometer. **3**
- (D) Describe principle, design and function of Oven. **5**
- 3** (A) Answer the following Objective type questions : **4**
- (1) At which temperature all double stranded DNA are melted to single strand?
- (2) If proteins are separated according to their electrophoretic mobility then the type of electrophoresis is :
- (3) Give full form of TLC
- (4) Write formula of Rf value.
- (B) Write the principal of GC. **2**
- (C) Give information about the design of Electrophoresis. **3**
- (D) Describe - TLC in detail. **5**
- 4** (A) Answer the following Objective type questions : **4**
- (1) In adsorption chromatography, the stationary phase is....
- (2) In TLC the silica gel or Alumina powder is function as....
- (3) How does the liquid rise through the filter paper ?
- (4) Which biomolecule is separated by Electrophoresis?
- (B) Write principal of electrophoresis. **2**
- (C) Write application of PCR. **3**
- (D) Write principle and draw flow chart of Gas Chromatography instrument. **5**
- 5** (A) Answer the following Objective type questions : **4**
- (1) Name the types of wood?
- (2) The technology of combining agriculture forestry is the concept of....
- (3) Soft wood fibres ranges about in length.
- (4) Give full form of IBWL.

- (B) Explain any two wood properties. **2**
- (C) Write a note on - social forestry. **3**
- (D) Give classification of Indian forest. **5**
- 6** (A) Answer the following Objective type questions : **4**
- (1) Write the name of zones of biosphere reserve.
- (2) Name any one type of forest occur in Gujarat?
- (3) Define word- wood.
- (4) Define "Social forestry"
- (B) Write the importance of agroforestry. **2**
- (C) Give information about the chemical composition of wood. **3**
- (D) Give only 18 biosphere reserve name list with their state. **5**
- 7** (A) Answer the following Objective type questions : **4**
- (1) Give the scientific name of Bili.
- (2) Write the local name of *Ocimum sanctum*.
- (3) Which plant parts of Ashwagandha are useful as medicine?
- (4) Give the scientific name of Ardusi.
- (B) Write any two medicinal uses of Ashwagandha. **2**
- (C) Write a note on -Nagod **3**
- (D) "Neem trees are very useful to mankind" – justify the statement. **5**
- 8** (A) Answer the following Objective type questions : **4**
- (1) Vitex negundo belongs to Family
- (2) Write the scientific name of Neem.
- (3) *Adhatoda vasaka* belongs to Family
- (4) Which plant parts of Tulsi are useful as medicines?
- (B) Write any two uses of Tulsi. **2**
- (C) Write three medicinal value of Eucalyptus with which plant part used ? **3**
- (D) Describe Uses of Bili. **5**

- 9 (A) Answer the following Objective type questions : 4
- (1) Which beverages possess tannin?
 - (2) Give the scientific name of Wheat.
 - (3) *Oryza sativa* is the scientific name of
 - (4) Write the scientific name of clove.
- (B) Write the uses of clove. 2
- (C) Assign the following plant in respective families: 3
- (a) Groundnut plant
 - (b) Coffee plant
 - (c) Wheat
- (D) Describe in detail with family name, its uses and 5
cultivation of *Arachis hypogea*.
- 10 (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) Write two economic importance of Sesamum. 2
- (C) Give three economic importance of Pea. 3
- (D) write scientific name, family and five economic 5
importance of Tea.
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