



MBF-003-1012006 Seat No. _____

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

March / April - 2018

Botany : 201

***(Angiosperms, Tools & Technique in Botany,
Biochemistry & Genetics)***

Faculty Code : 003

Subject Code : 1012006

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

[Total Marks : 70

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

- 1 (A) Answer the following objective type questions : 4
(1) State the type of kidney shape leaf
(2) Give the name of parts of leaf
(3) State the name of an arrow shaped leaf
(4) Name the types of stipules
- (B) Answer in brief : (any **One** out of Two) 2
(1) Draw and describe bipinnate compound leaf
(2) Define a phyllotaxy
- (C) Answer in detail : (any **One** out of Two) 3
(1) Describe the function of root
(2) Describe any three types of palmately compound leaf.
- (D) Write a note on : (any **One** out of Two) 5
(1) Explain types of leaf in detail
(2) Explain types of stem in detail

- 2** (A) Answer the following objective type questions : **4**
- (1) Which type of corolla is found in disc flower of sunflower?
 - (2) What is the name of fruit type of apple and pomegranate?
 - (3) What do you mean by polypetalous petals?
 - (4) State the name of cymose inflorescence.
- (B) Answer in brief : (any **One** out of Two) **2**
- (1) State the function of Corolla
 - (2) Describe the different position of ovary
- (C) Answer in detail : (any **One** out of Two) **3**
- (1) Write any two special type of inflorescence
 - (2) Describe any three simple fleshy fruits
- (D) Write a note on : (any **One** out of Two) **5**
- (1) Explain racemose inflorescence
 - (2) Describe aestivation and its types
- 3** (A) Answer the following objective type questions : **4**
- (1) What is scientific name of jasud?
 - (2) Give one advantage of Bentham and Hookers classification
 - (3) What is the scientific name of maize?
 - (4) The scientific name of sarpgandha is.....
- (B) Answer in brief : (any **One** out of Two) **2**
- (1) Describe the economic importance of Malvaceae
 - (2) Draw floral diagram of Nyctaginaceae family
- (C) Answer in detail.: (any **One** out of Two) **3**
- (1) Draw floral diagram and Floral formula of Apocynacea family
 - (2) Describe the merits and demerits of Bentham and Hooker classification
- (D) Write a note on : (any **One** out of Two) **5**
- (1) Explain Malvaceae family with floral diagram and floral formula.
 - (2) Explain Bentham and Hooker system of classification with reasons.

- 4 (A) Answer the following objective type questions : 4
- (1) What is Rf value?
 - (2) What do you understand by the term resolution?
 - (3) What is callus culture?
 - (4) Who introduced concept of pH meter?
- (B) Answer in brief : (any **One** out of Two) 2
- (1) Explain in brief 'totipotency'
 - (2) What are the main component of media of PTC?
- (C) Answer in detail : (any **One** out of Two) 3
- (1) Explain Beer's and Lambert's law
 - (2) Describe briefly Principle of Electron microscope.
- (D) Write a note on : (any **One** out of Two) 5
- (1) Explain in brief with diagram "paper chromatography"
 - (2) Describe principle, working technique, types and uses of light microscopy
- 5 (A) Answer the following objective type questions : 4
- (1) Who proposed B-oxidation theory?
 - (2) Write the structure of typical amino acid.
 - (3) Who proposed induced fit hypothesis?
 - (4) Give example of enzyme which is named by the discoverer.
- (B) Answer in brief : (any **One** out of Two) 2
- (1) Write first law of Mendel.
 - (2) Write a short note on Lock and Key hypothesis of enzyme.
- (C) Answer in detail : (any **One** out of Two) 3
- (1) Sketch the label only: A double helical DNA molecule.
 - (2) Prepare a chart of Dihybrid cross
- (D) Write a note on : (any **One** out of Two) 5
- (1) Discuss the mechanism of DNA replication
 - (2) Describe the process of Translation.