

4 SEM TDC BOT M 1

2017

(May)

BOTANY

(Major)

Course : 401

(Morphology and Taxonomy of Angiosperms)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

**1. (a) Choose the correct answer/Fill in the
blanks of the following : $1 \times 5 = 5$**

(i) In Takhtajan's classification
the term Magnoliopsida represents
Angiosperms / Monocotyledons /
Dicotyledons / None of the above.

(ii) The nature of stamen in Asteraceae
is Synandrous / Syngenesious /
Monoadelphous/Diadelphous.

(Turn Over)

(2)

(iii) Resupination is characteristically observed in flowers of Musaceae / Zingiberaceae / Orchidaceae / Poaceae.

(iv) The term Taxonomy was first coined by _____.

(v) Gynobasic style is morphological feature of Lamiaceae / Rubiaceae / Cucurbitaceae / Malvaceae.

(b) Write short notes on/Answer the following : $2 \times 5 = 10$

(i) Phylogeny of Magnoliaceae

(ii) Explain why Gnetales can be considered as ancestors of Angiosperms.

(iii) Advance characters of Orchidaceae

(iv) Importance of herbarium

(v) Subfamilies of Fabaceae

2. How morphological characters play an important role in plant classification? Give special reference to the role of reproductive morphology or morphology of reproductive parts. $7+3=10$

Or

Discuss the theories regarding the evolution of inflorescences. Give suitable sketches in support of the theories. $7+3=10$

(3)

3. Give a brief account of the natural system of classification you have studied. Write the importance of this system in classification of Angiosperms. Why was this system not accepted by the modern taxonomists? $7+2+2=11$

Or

$5+6=11$

Describe the following :

(a) The basic principles of Hutchinson's system of plant classification

(b) Biosystematics and its objectives

4. Write the floral characteristics, floral formulae and floral diagrams of the following families (any three) : $(2+1+1) \times 3 = 12$

(a) Magnoliaceae

(b) Musaceae

(c) Asteraceae

(d) Zingiberaceae

(e) Lamiaceae
