KAKATIYA UNIVERSITY

B.Sc III Year

Botany- Paper IV

(Physiology,Tissue culture, Bio technology, Seed technology and Hotrticulture)

Model question paper – Theory

Time : 3 hours Max. Marks : 100

SECTION – A

(Instructions to the question PAPER SETTER : Set **TWO** questions from **Each Unit** of the given syllabus)

Define or explain **ALL** of the following (8x2 =16 Marks)

1.
2.
3.
4.
5.
6.
7.
8.

SECTION – B

(Instructions to the question PAPER SETTER : Set **TWO** questions from **Each Unit** of the given syllabus)

Write short answers for **ALL** of the following (4 x 6 = 24 Marks)

9. (a) **UNIT - I**

(OR)

(b)

10. (a) **UNIT - II**

(OR)

(b)

11. (a) **UNIT - III**

(OR)

(b)

12. (a) **UNIT - IV**

(OR)

(b)

SECTION – C

(Instructions to the question PAPER SETTER : Set **TWO** questions from **Each Unit** of the given syllabus)

Write detailed answers for **ALL** of the following (4 x 15 = 60 Marks)

13. (a) **UNIT - I**

(OR)

(b)

14. (a) **UNIT - II**

(OR)

(b)

15. (a) **UNIT - III**

(OR)

(b)

16. (a) **UNIT - IV**

(OR)

(b)

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SECTION – A

Define or explain **ALL** of the following (8x2 =16 Marks)

1. Imbibition
2. Photosystem
3. Auxin
4. Phytochrome
5. Protoplast
6. Transgenics
7. Bonsai plant
8. Bud grafting

SECTION – B

Write short answers for **ALL** of the following (4 x 6 = 24 Marks)

9. (a). Nomenclature of enzymes

(OR)

(b) Photophosparylation

10. (a). Biological nitrogen fixation

(OR)

(b). Cytokinines

11. (a). Cybrids

(OR)

(b). Synthetic seeds

12. (a) Seed banks

(OR)

(b) Importance of green house

SECTION – C

Write detailed answers for **ALL** of the following (4 x 15 = 60 Marks)

13. (a) Describe mechanism of stomatal movement

(OR)

(b) Give an account of C_4 cycle

14. (a) Discuss about pentose phosphate pathway

(OR)

(b) Write briefly about protein synthesis

15. (a) Discuss the importance of somatic hybrids in the improvement of crop plants

(OR)

(b) What is r-DNA? Describe various steps involved in the construction of r-DNA.

16. (a) What is seed dormancy? Describe the causes and methods of breaking seed dormancy

(OR)

(b) Describe the role of growth regulators in horticulture