



K20U 1811

Reg. No. : .....

Name : .....

**III Semester B.Sc. Degree CBCSS (OBE) – Regular  
Examination, November 2020  
(2019 Admission Only)**

**Complementary Elective Course in Botany**

**3C03BOT : ANGIOSPERM MORPHOLOGY, ANATOMY AND SYSTEMATICS**

Time : 3 Hours

Max. Marks : 40

**Instruction : Draw diagrams wherever specified.**

**PART – A**

Objective type questions. Answer **all**.

**(4×1=4)**

1. The smallest unit of classification is  
a) Family                      b) Order                      c) Genus                      d) Species
2. Vascular cambium is a  
a) Promeristem                      b) Apical cambium  
c) Intercalary meristem                      d) Lateral meristem
3. The Tunica-carpus concept was proposed by  
a) Nageli                      b) Schmidt                      c) Haberlandt                      d) Guttenberg
4. Oblique ovary is found in the family  
a) *Solanaceae*                      b) *Malvaceae*                      c) *Poaceae*                      d) *Asteraceae*

**PART – B**

Short essay questions. Answer **any eight**.

**(8×2=16)**

5. Explain aleurone grains.
6. Distinguish between Alburnum and duramen.
7. Give an account on ultra-structure of cell wall.
8. What are the different types of starch grains ?

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9. Name two insect repellents used in *Herberia*.
10. Explain the structure of Tyloses.
11. Briefly explain the staminal tube of *Malvaceae*.
12. Briefly explain Quiescent centre.
13. Comment on artificial system of classification.
14. Explain the structure of hydathode.
15. What is imbricate aestivation ?
16. What are the types of stomata ?

PART – C

Essay questions. Answer **any four**.

(4×3=12)

17. Explain about the ergastic compounds of the cell.
18. Explain the floral characters of *Rubiaceae*.
19. What are the merits and demerits of Bentham and Hooker's classification ?
20. Explain the structure of Isobilateral leaf.
21. "Flower is a modified shoot". Explain.
22. What is placentation ? Explain different types with examples.

PART – D

Long essay questions. Answer **any one**.

(1×8=8)

23. Give the important characters of *Fabaceae*. Compare its sub families.
  24. Write an essay on secondary thickening in Dicot stem with extra stellar secondary structures.
  25. Classify the permanent tissues and explain with illustrations.
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