

C 21104

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Name.....

Reg. No.....

**SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2017**

(CUCBCSS-UG)

Botany

**BOT 6B 11—CELL BIOLOGY AND BIOCHEMISTRY**

Time : Three Hours

Maximum : 80 Marks

**Section A**

*Answer all questions.  
Each question carries 1 mark.*

1. What are oxysomes ?
2. What is a dipeptide ?
3. Define lygase enzymes.
4. Give any *two* example for aromatic amino acids..
5. What are cisternae ?
6. What are microtubules ?
7. State the significance of mitosis.
8. Name the monomers in glycogen and starch.
9. Name the membrane in vacuole.
10. What is RER ?

(10 × 1 = 10 marks)

**Section B**

*Answer all, each question carries 2 marks.*

11. What is a prokaryote and give an example ?
12. What is inversion ?
13. Differentiate stroma lamellae from grana lamellae.
14. Write the secondary structure of proteins.

What are allosteric enzymes ?

**Turn over**

16. What is crossing over ?
17. Name any *two* unsaturated fatty acids and its role.
18. What are acrocentric and metacentric chromosomes ?
19. Write any *two* characteristic features of vacuole.
20. Explain the structure of nuclear pore complex.

(10 × 2 = 20 marks)

### Section C

*Answer any six questions.*

21. Explain the structure and function of ribosome in prokaryotes and eukaryotes.
22. Describe the polytene chromosomes.
23. Draw the structure of sucrose.
24. Differentiate amylase from amylopectin.
25. Write the prophase I of meiosis.
26. Describe mechanism of enzyme action.
27. Write the classification of enzymes.
28. Write the ultra structure of lysosomes and its function.

(6 × 5 = 30 marks)

### Section D

*Answer any two questions.*

29. Describe numerical aberrations of chromosomes and their meiotic consequences and significance.
30. Explain secondary metabolites and their physiological roles.
31. Describe the morphology, chemical composition and organization of chromosomes.

(2 × 10 = 20 marks)