

18P234

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Name:.....

Reg. No:.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2019

(Regular/Improvement/Supplementary)

(CUCSS - PG)

**CC15P BO2 C05/ CC18P BO2 C05 - CELL BIOLOGY, MOLECULAR BIOLOGY
AND BIOPHYSICS**

(Botany)

(2015 Admission onwards)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* the questions very briefly.

1. Give an account on freeze drying.
2. Give a short note on autoradiography.
3. Give Henderson- Hasselbatch equation.
4. What is the principle of centrifugation?
5. What is TATA box?
6. Give the applications of molecular phylogenetics.
7. Give the significance of chaperons.
8. Define primosome.
9. What is repetitive DNA?
10. Give an account on meiotic defects.
11. Give a short account on cellular differentiation.
12. What is chromosome banding?
13. What is cell signaling?
14. What is metastasis?

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions in not more than 100 words.

15. Give an account on cell interactions and their applications in Biology.
16. Explain the molecular mechanism of cancer.
17. Give an account on mitotic cell cycle regulation.
18. Give a detailed account on mutation.
19. Briefly explain enzymology of DNA replication.
20. Explain DNA repairing mechanisms.

21. Give an account on gene regulation in Operon concept.
22. Give an account on RIA and ELISA.
23. Give an account on Electrophoresis. What are its applications in Biology?
24. Write a brief account on principle and types of chromatography.

(7 x 2 = 14 Weightage)

III. Answer any *two* questions in 300 words.

25. Explain the major events in Meiosis. Give a short note on its regulation.
26. Give a detailed account on major steps of protein synthesis in prokaryotes.
27. Give a detailed account on chromosome organization in Eukaryotes.
28. Give a comparative account on colorimetry and spectrophotometry.

(2 x 4 = 8 Weightage)
