

18U517

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Name:

Reg. No.....

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CUCBCSS-UG)

(Regular/Supplementary/Improvement)

CC15U ZO5 B08 - CELL BIOLOGY AND GENETICS

(Zoology - Core Course)

(2015 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

I. Answer *all* questions.

1. ----- is used for microscopic calibration.
2. An example for pleiotropism is -----
3. Expand GERL
4. Canada Balsum is a -----
5. Hypertrichosis is an example for -----
6. The programmed cell death is known as -----
7. Fluid mosaic model was put forward by -----
8. ----- are the building blocks of chromatin.
9. Environmental influence of sex determination is shown in -----
10. ----- aims to improve the genetic quality of a human population.

(10 x 1 = 10 Marks)

II Short answer type. Answer any *ten* questions.

11. Mention the uses of camera lucida.
12. Give a short note of atomic force microscope.
13. Comment on polygenic effect.
14. Mention any four fixatives.
15. What is Sudan test?
16. Differentiate between complementary and supplementary gene action.
17. What is Lesch Nyhan syndrome?
18. Give a short note of pedigree analysis.
19. What is a Linkage map?
20. What are polysomes?
21. Give a short note of MN blood group.
22. Give a brief note of heterochromatin.

(10 x 2 = 20 Marks)

III. Paragraph type. Answer any *five* questions.

23. Give a brief account of Modifications of plasma membrane.
24. Mention the characteristics of cancer cells.
25. Give a brief account of allelic and non allelic gene interactions.
26. Explain sex linkage in man with examples.
27. Discuss the various types of variations from Mendelian ratios.
28. Describe the structure of nucleolus.
29. Briefly explain chromosome mechanism of sex determination.
30. Describe the structure of polytene chromosome with a labeled diagram.

(5 x 6 = 30 Marks)

IV. Essay type. Answer any *two* questions.

31. Give a detailed account of any five gene mutations in man.
32. Discuss about sex linked and sex influenced traits.
33. Describe the principle and uses of various types of electron microscopes.
34. With neat labeled diagrams, describe cell cycle.

(2 x 10 = 20 Marks)
