

2020

Gurudas College

ZOOLOGY – HONOURS

(1+1+1 2016 Regulations)

PAPER I (UNIT II)

Full Marks: 50

Time: 2 hrs.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

Answer **any twenty five** questions from the following:

2x25

1. What are liposomes?
2. Write a short note on lysosome.
3. Mention the importance of Shine-Dalgarno sequence.
4. What is “Wobble” hypothesis?
5. Define replisome.
6. Briefly state Mitochondrial DNA.
7. What are lampbrush chromosomes? Mention its significance.
8. What is telomerase? What is its significance?
9. Compare and contrast sn RNA and sno RNA.
10. Discuss the structure of nucleosome.
11. What is capping of an hn RNA?
12. What do you mean by the limit of resolution of a microscope?
13. What are nullisomy and monosomy?
14. Distinguish between mutagen and carcinogen.
15. What is TATA Box?
16. What is DNA oligomer?
17. What is Robertsonian Translocation?
18. What is Xic? Mention its function.
19. What do you mean by Frame shift mutation?
20. Mention two differences between SEM and TEM.
21. What do you mean by degeneracy of genetic code?
22. What is linker DNA?
23. Name the different r-RNA components of the two subunits of prokaryotic and eukaryotic ribosomes.
24. What is dicentric bridge?
25. What is Bombay Phenotype?
26. State the functions of DNA gyrase.
27. Distinguish between isoallele with pseudoallele. Explain with example.
28. What is alternative splicing?
29. Mention the name of different types the membrane proteins.
30. Give two differences between phase contrast and optical microscope.
31. What are polytene chromosomes? Where do they occur?
32. What is Hogness Box?
33. What is paracentric and pericentric inversion?
34. Define silent mutation.
35. Give the role of β -clamp loader in DNA replication.