

C 83089

(Pages : 2)

Name.....

Reg. No.....

SECOND SEMESTER M.A./M.Sc./M.Com. DEGREE EXAMINATION
JUNE 2020

(CBCSS)

Zoology

ZOL 2C 05—MOLECULAR BIOLOGY

(2019 Admissions)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* questions. Each question carries 2 weightage :

- 1 Sines and Alu family.
- 2 Non-homologous recombination.
- 3 Role of immunotherapy in uncontrolled cell growth.
- 4 Site specific deamination in RNA editing.
- 5 Restriction enzymes.
- 6 Ti plasmids.
- 7 Okazaki fragments.

(4 × 2 = 8 weightage)

II. Answer any *four* questions. Each question carries 3 weightage :

- 8 Explain the mechanisms for maintaining the fidelity of DNA replication.
- 9 Write on the features of genetic code.
- 10 Discuss the differences in translation in prokaryotes and eukaryotes.
- 11 Describe Operon concept with examples. Write note on positive and negative regulations.
- 12 Discuss the structure and evolution of globin genes in human. Write note on evolutionary clock.
- 13 Explain mechanisms in somatic recombination in eukaryotes.
- 14 Elucidate different post translational modifications.

(4 × 3 = 12 weightage)

Turn over

III. Answer any *two* questions. Each question carries 5 weightage :

- 15 Write an account on replication mechanism in prokaryotes and eukaryotes.
- 16 Write an account on transcription mechanisms in prokaryotes. How is it different from Eukaryotes.
- 17 Write notes on interrupted genes. Describe briefly the role of interrupted genes in evolution.
- 18 Write an essay on mechanisms for eukaryotic gene expression.

(2 × 5 = 10 weightage)