C 80940

(Pages : 2)

Name.....................................

Reg. No..............................

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION APRIL 2020

Zoology

ZOL 4C 04—GENETICS AND IMMUNOLOGY

Time : Three Hours

Maximum : 64 Marks

Part A

I. One word questions. Answer *all* questions. Each question carries 1 mark.

1 Who discovered jumping genes ?

2 Name the genetic disorder in which a person's blood is not able to clot normally.

3 High levels of glucose in the blood may be a sign of ————, ———— disease.

4 Diagrammatic representation of karyotype is known as ————.

5 Antibodies are made by ———— cells.

6 Name the vaccine against TB.

7 Spread of cancer to distant parts of the body from its original cells is called ————.

8 Chromosome which carries holandric genes is ————.

9 Name an organism in which sex is determined by external environmental factors.

10 Write the full form of ELISA.

(10 × 1 = 10 marks)

Part B

II. Short answer questions. Answer any *seven* questions. Each question carries 2 marks.

11 Interferons.

12 Innate immunity.

13 Criss cross inheritance.

14 Northern blotting.

15 Ichthyosis.

16 Barr body.

Turn over

17 Split genes.

18 Eugenics.

19 Protoplast fusion.

20 Monoclonal antibodies.

(7 × 2 = 14 marks)

Part C

III. Paragraph questions. Answer any *four* questions. Each question carries 5 marks.

21. Give an account on primary immune deficiency diseases.

22 Give an account on various types of cancer.

23 Explain chromosomal mechanism of sex determination.

24 Give an account on various vectors used in genetic engineering.

25 . With suitable example explain anomalies due to autosomal mutation.

26 Give an account on genetic counseling.

(4 × 5 = 20 marks)

Part D

IV. Essay questions. Answer any *two* questions. Each question carries 10 marks.

27 What is genetic material ? Explain the various experiments which prove DNA as genetic material.

28 Give a detailed account on eukaryotic protein synthesis.

29 Explain the methodology and applications of various blotting techniques.

30 Give a detailed account of human chromosomal anomalies and disorders.

(2 × 10 = 20 marks)