Model Question paper

Genetics (Z) 3

11th Standard

Biology

Reg.No. : | | | | | | |

I. Answer all the questions.

II. Use blue pen only.

Time : 00:45:00 Hrs

Total Marks : 30

Part - A

6 x 1 = 6

1) The number of chromosomes in the body cell of Drosophila is ---------

(a) 6 pairs (b) 4 pairs (c) 8 pairs (d) 23 pairs

2) The gamete that is responsible for the formation of male sex is --------

(a) Egg cell with X-chromosome (b) sperm cell with X-chromosome (c) sperm cell with XY-chromosome (d) sperm cell with Y-chromosome

3) Holandric genes are ---------- genes.

(a) X-linked (b) Y-linked (c) Autosomal (d) Multiple

4) The hereditary disease that affect the red blood cells of human beings is ----------

(a) Sickle cell anaemia (b) Phenylketonuria (c) Haemophilia (d) Achromatopsia

5) The type of sex determination in moths and butterflies is --------

(a) XX-XO type (b) XX-YY type (c) ZO-ZZ type (d) ZW-ZZ type

6) Holandric genes occur exclusively on

(a) X-chromosomes (b) Y-chromosomes (c) autosomes (d) both X and Y chromosomes

Part - B

5 x 2 = 10

7) Mention the possible genotypes of the offsprings if the parental blood groups are B and B.

8) What was the opinion of biometricians in genetics

9) Who are mulattoes?

10) What is arrhenotokus parthenogenesis?

11) Provide the genotypes for himalayan albino rabbits

Part - C

3 x 3 = 9

12) What will be the nature of the F_2 progeny, if a coloured rabbit is crossed with an albino?

13) What is erythroblastosis fetalis?

14) Provide an account on Turner's syndrome and Klinefelter's syndrome.

Part - D

1 x 5 = 5

15) Explain genic balance mechanism of sex determination.

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