

SEAT No. _____

No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY

B.Sc. 5th Semester Examination 2020-21

US05CZOO05 : GENETICS

DATE: 30/12/2020

TIME: 2:00 pm to 4:00 pm.

[101]

MARKS: 70

Q-1

CHOOSE CORRECT ANSWER.

[10]

1. Father of Genetics : _____
a. Aristotal b. Lamark c. Darwin d. Gregor mendel
2. In organism hybrid units are _____
a. Gene b. Ribosome c. Golgi body d. ER
3. In genetic interaction P stands for _____.
a. Patent b. Gamete c. Allele d. Generation
4. How many characters are involved in monohybrid cross?
a. One b. Two c. Three d. Four
5. Which of the following is genotype of blood group AB?
a. $I^A I^A$ b. $I^B I^B$
c. $I^O I^O$ d. $I^A I^B$
6. _____ Antigen present in blood group 'A'
a. A b. B c. Both d. None
7. Bar body can seen in :
a. XYY b. XY c. XX d. none of these
8. Sex chromosome in human are :
a. 21st pair b. 22nd pair c. 23rd pair d. None
9. To get more advance trait is part of _____.
a. Euohenics b. Eugenics c. Mutation d. All of these
10. The genes which remain confined to different region of Y-Chromosome is called as _____.
a. Sex linked genes c. Holandric gene
b. Recessive gene d. None

[1]

[P.T.O.]

Q-2

[08]

- 1 1:2:1 ratio is modification of _____ cross.
- 2 In _____ type of blood group , antigens are not present.
- 3 The picture of chromosomes in descending order is known as _____
- 4 Chiasmata takes place during _____ phase.
- 5 Genetics is branch of biology deal with study of heredity and variation of inherited characteristics. - (True/False)
- 6 Drosophila used in Genetics as model organism. - (True/False)
- 7 In cell other than nucleus DNA is also found in Ribosome. - (True/False)
- 8 Amniocentesis is used for genetic disorder.- (True/False)

Q-3

ANSWER IN SHORT. (Any ten)

[20]

- 1 Write about Dihybrid cross.
- 2 Define lethal genes.
- 3 Write Characters used by Mendel in Experiments..
- 4 What is back cross?
- 5 Write about Mitochondrial DNA.
- 6 What is Epistasis?
- 7 Write about double crossing over.
- 8 What is sex linked gene? List the Names.
- 9 Write about Chromosomes of Drosophila.
- 10 Define the term Mutation.
- 11 What is Euphenics?
- 12 Write a Brief note on phenomenon of twin babies.

Q-4

Long Questions. (Attempt any four)

[32]

- 1 What is Co-dominance? Explain with example.
- 2 Explain in detail about 'Law of Segregation' with example.
- 3 Give an account on multiple alleles in human blood group.
- 4 Write a note on lethal gene with examples.
- 5 Describe sex determination.
- 6 Write a note on Gene linkage.
- 7 Describe positive and negative Eugenics.
- 8 Describe disorders due to mutant genes.

————— X —————

[2]