

SEAT No. _____

[41/A-11]

SARDAR PATEL UNIVERSITY

B.Sc. Semester V- November-2018

Genetics[Zoology]

US 05 CZOO 05

TIME: 10:00-1.00 PM

DATE: 01/11/2018 Thursday

MARKS: 70

Q-1 MULTIPLE CHOICE QUESTIONS:

[10]

1. MONOHYBRID IS AN INTERACTION BETWEEN.....CHARACTERS
A, SINGLE B, TWO C, THREE D, ALL
2. 9:3:3:1 IS A MODIFICATION OF.....CROSS
A, DIHYBRID B, MONOHYBRID C, LETHAL GENE D, NONE
3. WHICH CHARACTER NOT CHOSEN BY MENDEL IN MONOHYBRID CROSSES?
A, SEED COLOUR B, FLOWER COLOUR C, STEM COLOUR D, NONE
4. WHICH OF FOLLOWING IS DOMINANT HOMOZYGOUS.
A, I^AI^B B, I^AI^O C, I^AI^A D, I^BI^O
5. ANTIGENS ARE PRESENT IN BLOOD GROUP A
A, NONE B, AB C, A D, B
6. FUNCTIONS OF MITOCHONDRIAL DNA TO SYNTHESIS
A, PROTEIN B, ENZYMES C, ATP D, COENZYMES
7. CHROMOSOMES KNOWN AS SEX CHROMOSOMES IN HUMAN ARE
A, 21ST B, 22ND C, 23RD D, NONE
8. CHIASMATA TAKES PLACE DURING
A, PROPHASE B, METAPHSE C, ANAPHASE D, TELOPHASE
9. IDENTICAL TWINS ARE PRODUCED FROM
A, TWO ZYGOTE B, TWO SPERMATOZOON C, ONE ZYGOTE D, ALL POSSIBILITIES
10. ARRANGEMENT OF CHROMOSOMES IN DESCENDING ORDER IS
A, PEDIGREE B, IDEOGRAM C, KARYOTYPE D, NONE

Q-2 ANSWER IN SHORT [ANY TEN]

[20]

1. WHAT IS SEGREGATION OF GENES?
2. WRITE ABOUT HISTORY OF MENDEL 'S EXPERIMENTS
3. WRITE ABOUT 3:1 RATIO
4. WHAT IS EPISTASIS?
5. WHAT IS TEST CROSS
6. WRITE ABOUT MITOCHONDRIAL DNA
7. DEFINE DIFFERENTIATION
8. WRITE ABOUT CHROMOSOMES OF DROSOPHILA
9. WRITE ABOUT DOUBLE CROSSING OVER
10. EXPRESS MUTATION
11. DEFINE EUPHENICS
12. WRITE ABOUT BANDING TECHNICs



[P.T.O.]

- Q-3 A, WHAT IS INCOMPLETE DOMINANCE? EXPLAIN [05]
B, EXPLAIN AN EXAMPLE OF LAW OF SEGREGATION [05]
- OR
- Q-3 A, EXPLAIN 1:2:1:2:4:2:1:2:1 RATIO [05]
B, EXPLAIN LAW OF INDEPENDENT ASSORTMENT [05]
- Q-4 EXPLAIN DOMINANT AND RECESSIVE EPISTASIS [10]
- OR
- Q-4 EXPLAIN MULTIPLE ALLELES IN ASPECT OF BLOOD GROUP [10]
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- Q-5 A, EXPLAIN SEX DETERMINATION IN DROSOPHILA [05]
B, EXPLAIN X LINKED GENES [05]
- OR
- Q-5 A, EXPLAIN THEORIES OF CROSSING OVER [05]
B, WHAT IS SEX INFLUENCED GENE? EXPLAIN [05]
- Q-6 DESCRIBE AMNIOCENTESIS AND TWINS [10]
- OR
- Q-6 DESCRIBE POSITIVE AND NEGATIVE EUGENICS [10]

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