



RAN - 1803000201030112



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F. Y. B Sc. (Sem. - I) Examination

March - 2023

Bioscience (Microbiology) : BS-102

Basic Genetics

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

F. Y. B Sc. (Sem. - I)

Name of the Subject :

Bioscience (Microbiology) : BS-102 Basic Genetics

Subject Code No.: **1803000201030112**

Seat No.:

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Student's Signature

(2) All questions are compulsory.

***O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ
O.M.R. Sheetની પાછળ છાપેલ છે.***

***Important instructions to fillup O.M.R. Sheet
are given on back side of the provided O.M.R. Sheet.***

- Q. 10.** The first scientific explanation regarding inheritance was given by
- William Bateson
 - Johannsen
 - Griffith
 - Mendel
- Q. 11.** Who is known as “Father of Genetics”?
- Theophrastus
 - Stephen Hales
 - Aristotle
 - None
- Q. 12.** A study of inheritance of an organism is known as _____.
- Genome
 - Genetics
 - Genotype
 - Gene
- Q. 13.** Organisms produced by sexual reproduction are called
- Genes
 - Clones
 - Characters
 - None
- Q. 14.** Offspring are
- Exactly identical to either of their parents.
 - Exactly identical to their parents.
 - Show intermediate characters inherited from both the parents.
 - None
- Q. 15.** The term “factor” for gene was coined by
- William Bateson
 - Johann Mendel
 - Johannsen
 - F.Griffith
- Q. 16.** Mendel discovered
- Law of inheritance
 - Law of codominance
 - Law of incomplete dominance
 - All
- Q. 17.** The botanical name of garden pea is
- Pisum sativum*
 - Lathyrus odoratus*
 - Mangifera indica*
 - Solanum tuberosum*
- Q. 18.** Which of the following is a character in pea?
- Wrinkled seeds
 - Inflated pod
 - Terminal flower
 - All

- Q. 19.** Which of the following character was not considered by Mendel?
- Seed coat color
 - Wrinkled or round leaves
 - Tallness or dwarfness
 - Position of flower
- Q. 20.** An inherited character and its detectable variant is called
- Allele
 - Trait
 - Gene
 - None
- Q. 21.** Which one of the following best describes a gene?
- A triplet of nucleotide bases.
 - A specific length of DNA responsible for the inheritance and expression of the character.
 - A specific length of single stranded RNA.
 - All
- Q. 22.** Recessive allele means
- An allele that prevents the expression of the other allele.
 - An allele without any effect.
 - An allele which cannot express in presence of other.
 - None
- Q. 23.** The external appearance of an individual for any trait is called as
- Phenotype
 - Karyotype
 - Morphology
 - Physique
- Q. 24.** Genome is
- Genetic constitution of an organism.
 - Genetic constitution of somatic cells.
 - Genetic constitution of plastids.
 - Genetic constitution of germ cells.
- Q. 25.** Homozygous individuals
- Hybrid for the trait.
 - Does not breed true to the trait.
 - Produce only one type of gamete.
 - All

- Q. 26.** Which of the following term indicates a pair of dissimilar alleles?
- Homozygous
 - Heterozygous
 - Homologous
 - All
- Q. 27.** A cross between two pure individuals, differing in at least one set of characters, is called
- Monohybrid
 - Polyploid
 - Mutant
 - Variant
- Q. 28.** F1 generation means
- First flowering generation
 - First fertile generation
 - First filial generation
 - First seed generation
- Q. 29.** In genetics, the use of test cross was done by
- Mendel
 - Correns
 - Punnet
 - Darwin
- Q. 30.** Mendel, in his experiments
- Maintained qualitative records.
 - Maintained quantitative records.
 - Conducted ample crosses and reciprocal crosses.
 - All
- Q. 31.** Mendel performed
- Monohybrid cross
 - Tetra hybrid cross
 - Poly hybrid cross
 - All
- Q. 32.** Mendel always started his experiment (Monohybrid and Dihybrid cross) with
- Any pea plant
 - A heterozygous plant
 - A pure line plant
 - A fresh new plant
- Q. 33.** When Mendel allowed monohybrid cross between pure tall and pure dwarf pea plant, he found _____ in Ist generation.
- All plants were tall.
 - All plants were dwarf.
 - Dwarfness reappeared in some plants.
 - Tallness reappeared in some plants.

- Q. 43.** In Turner's syndrome the karyotype shows _____.
- 47 chromosomes (Trisomy of 21).
 - 47 chromosomes (AA+XXY).
 - 46 chromosomes (AA+XY or XX).
 - None
- Q. 44.** In Klinefelter's syndrome the karyotype shows _____.
- 47 chromosomes (Trisomy of 21).
 - 47 chromosomes (AA+XXY).
 - 47 chromosomes (Trisomy of 18).
 - 45 chromosomes (AA+XO).
- Q. 45.** Webbed neck and Barr body negative are the symptoms of _____.
- Turner's syndrome.
 - Klinefelter's syndrome.
 - Down syndrome.
 - Cat-cry syndrome.
- Q. 46.** Turner's syndrome is a result of _____.
- Nullisomy
 - Monosomy
 - Trisomy
 - Polysomy
- Q. 47.** Chromosome _____ trisomy leads to Edward's syndrome.
- 12
 - 13
 - 18
 - 21
- Q. 48.** A child is born with AB blood group, what is the blood group of their parents?
- Only A
 - Only B
 - A, B, AB and O
 - O
- Q. 49.** I^A allele responsible for the _____ while I^B for _____.
- A antigen, B antigen
 - I antigen, I antibody
 - A antibody, B antibody
 - H antigen, D antigen
- Q. 50.** Which of the following are the properties of gene?
- Autocatalytic
 - Heterocatalytic
 - Recombination
 - All
- _____

SPACE FOR ROUGH WORK