

UNIT TEST - I**STANDARD – X**

Reg.No.

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Time : 45 min.**SCIENCE****Marks : 25**

- Instructions:**
1. Check the question paper for fairness of printing. If there is any of fairness, inform the Hall supervisor immediately.
 2. Use Blue or Black ink to Write and pencil to draw diagrams.

- Note :**
1. This question paper contain Three section s.
 2. Using of calculator is permitted.

SECTION – I**Note : i) Answer all the question.****5×1=5****ii) Choose the correct answer from the alternatives given in the brackets**

1. The inheritance of characteristics through generation is called “heredity”. In Mendel's Pisum sativum plant, the genetic material present is _____.

i) DNA ii) RNA iii) Protein iv) Cytoplasm

2. Identify the incorrect statement about identical twins.

i) developed from a single zygote ii) always of the same sex

iii) look alike in many aspects iv) differ in their blood groups

3. Some people can roll their tongue and this is a genetically controlled auto-somal dominant character. [Roller = RR / Rr; Non-roller = rr]

A child who can roll the tongue has one brother who is a non-roller and two sisters who are rollers. If both the parents are rollers, the genotypes of their parents would be ____.

i) RR x RR ii) Rr x Rr iii) RR x rr iv) rr x rr

4. Which of the following is inheritable?

i) an altered gene in sperm ii) an altered gene in liver cells

iii) an altered gene in skin cells iv) an altered gene in udder cells

5. Bio technologically synthesized _____ is used to cure pernicious anaemia.

i) Vitamin B12 ii) vitamin C iii) Vitamin D iv) vitamin K

SECTION –B**II. Answer any TEN question .****10×2=20**

6. The inheritable characters vary in different species and within the same species. Name the variation in the following cases. The eye colour among the human beings are varied as blue, black, brown, green, etc.
 - i) This is called as _____ variation.
The dentition in the rabbit and the elephant are not the same.
 - ii) This is called as _____ variation
7. What are variations? Mention their types.
8. What are monoclonal antibodies? Mention its use.

9. Find out who I am?

i) I am organic and present in citrus fruits and I give immunity.

ii) I am the paste enzyme that joins segments of DNA.

10. Find the unmatched pairs:

Nif genes - Nitrogen Fixation

tt - Alleles

Bio-chips - Biological computer manufacturing

Interferon - Antiproteins of Bacteria

stem cells - Unspecialised mass of cells

11. For the experimental research Dr. Ian Wilmut used the nucleus of the udder cell from a six year old Finn Dorset white sheep and preserved the diploid nucleus (2n). He took an ovum from the ovary of another sheep. The haploid ovum was removed. The diploid nucleus of the udder cell was injected into the cytoplasm of the enucleated ovum. Then the diploid nucleus ovum was implanted into the uterus of the surrogate mother sheep. The diploid ovum developed into a young one, named "Dolly".

i) Why did Wilmut select the udder cell?

ii) Define the terms haploid and diploid.

12. In dogs, the barking trait is dominant over the silent trait. Using Punnett Square work out the possible puppies born to two barking parents with genotype (Rr).

13. Sequentially arrange the different species of man from primitive to modern man.

(Neanderthal man, Homo habilis, Homo erectus, Homo sapiens)

14. What is evolution?

15. In persons suffering from insulin-dependent diabetes, _____ the cells of pancreas are degenerated.

i) Alpha ii) Beta iii) Gamma iv) Delta

16. Here are certain important hereditary jargons. Fill in the blanks by choosing a suitable one from the list given. (allele, variation, speciation, gene, allelomorphs)

i) _____ are the factors which form the physical basis of inheritance

ii) _____ is the alternate forms of the same gene.

iii) _____ are the expressions of contrasting pair of alleles.

17. what is cloning?