Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Agriculture) (Sem.–2)

FUNDAMENTALS TO GENETICS

Subject Code : BSAG-201-19

M.Code : 77662

Date of Examination : 02-07-22

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

a) Ideogram

b) Tetrasomics

c) Super females

d) Transition

e) Turner's Syndrome

f) Anaphase II

g) Pleiotropism

h) Mutant

i) Pyrimidine

j) Coupling phase linkage

SECTION-B

2. What is epistasis? Explain the complementary gene action with suitable example.

3. What is RNA? Give its different types with salient features. How does it differ from DNA?

4. Explain the Griffith's experiment in support of DNA as a genetic material.

5. What is crossing over? Give cytological proof of crossing over.

6. What do you understand by translocations? What are their genetic consequences?

SECTION-C

7. a) Explain the genetic code and its salient features.

   b) Describe the process of protein synthesis from RNA.

8. Write short note on :

   a) Nucleosome

   b) tRNA

   c) CIB technique

   d) Pericentric inversions

   e) ABO blood group in human beings

9. a) Explain gene regulation mechanism with the help of an example of tryptophan *(trp)*.

   b) Explain the Mendel's laws with suitable examples.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.