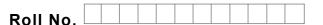
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Total No. of Pages : 02

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B.Sc.(Agriculture) (2014 to 2018)/ B.Sc. (Hons.)(Agriculture)

(Sem.-3)

INTRODUCTION TO GENETICS

Subject Code : BSAG-304

M.Code: 72554

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES :

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

SECTION-A

- stRanker.com 1. **Define or briefly describe the following :**
 - a) Transversion
 - b) Turner's syndrome
 - c) Polytene chromosomes
 - d) Lamp brush chromosomes
 - e) B-DNA
 - f) Synaptonemal complex
 - g) Frameshift mutation
 - h) Lethal gene
 - i) Nucleosome
 - j) XXXY condition



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SECTION-B

Differentiate between :

- 2. Penetrance and Expressivity
- 3. Sex linked and Sex limited Traits
- 4. Inducible and Repressible operon
- 5. Physical mutagens and Chemical mutagens
- 6. Paracentric inversion and Pericentric inversion

SECTION-C

- 7. Discuss in detail the process of translation (draw neat and well labeled diagram). Also discuss the characteristic features of genetic code.
- 8. a) Prove that DNA is a genetic material by citing a suitable experimental evidence.
 - b) Explain cytoplasmic inheritance with suitable examples (any two).
- 9. a) Discuss the evolutionary history of cotton.
 - b) Explain the mechanisms (any two) of crossing over.

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.