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## INDIAN SCHOOL MUSCAT SECOND PERIODIC TEST

### BIOLOGY

CLASS: XII

Sub. Code: 044

Time Allotted: 50 mts

13.09.2018

Max. Marks: 20

#### **GENERAL INSTRUCTIONS:**

- All Questions are compulsory.
- Draw diagrams if necessary.

1. What is the base pairing pattern of DNA? 1
2. What do the triplets AUG and UGA respectively each for during protein synthesis? 1
3. Who dismissed once and for all, the spontaneous generation theory of origin of life? 1
4. Define gene cloning. 1
5. Explain the experiments conducted by Taylor and his colleagues in 1958. What was conclusion of that experiment? 2
6. What is splicing? Why is splicing necessary in eukaryotic genes? 2
7. Would you consider the wings of a butterfly and a bat as homologous or analogous? Why? 2

OR

- i) In which part of the world, Neanderthal man lived. ii) What was his brain capacity?
8. a) Define Biotechnology b) What does the term 'amplification' mean with reference to PCR? 2
  9. Explain any two methods of vectorless gene transfer. 2

10. Describe discontinuous synthesis of DNA.

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OR

Define the following terms

a) promoter and terminator of transcription unit. b) ribozyme.

11. Name and Explain the technique used in the separation and isolation of DNA fragments to be used in rDNA technology,

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OR

Explain the process by which a bacterial cell can be made 'competent'. Why is it essential to make bacterial cells 'competent' in rDNA technology?

**End of the Question Paper**