

[A-47/A-48]

SEAT No. \_\_\_\_\_

No. of printed pages 02

SARDAR PATEL UNIVERSITY  
M.Sc (INTEGRATED) BIOTECHNOLOGY- VII SEMESTER  
FINAL EXAMINATION (ATKT), March - 2019

IG-IBT/EBT - 7<sup>th</sup> SEMESTER

PS07CIGIB4/PS07CIGEB4: Advanced Molecular Biology

Date 26<sup>th</sup> March 2019      TIME: 2:00 to 5.00 pm      Maximum Marks:70  
Tuesday

Q.1      Attempt all the questions

1x8=  
8

- (i) True replication of DNA is possible due to  
(a) Hydrogen bonding (b) Complementary base pairing rule (c) Phosphate backbone (d) All of these
- (ii) The phosphorylation of CTD is done by  
(a) TFIIA (b) TFIIC (c) TFIID (d) TFIIF
- (iii) RNA Pol I transcribes .....RNA  
(a) tRNA (b) mRNA (c) rRNA (d) sn RNA
- (iv) The following is not a type of alternative splicing  
(a) exon extended (b) intron retained (c) exon shuffling (d) exon skipped
- (v) The secreted proteins are first targeted to  
(a) Endoplasmic reticulum (b) Golgi apparatus (c) Lysosome (d) Plasma membrane
- (vi) There are .....isoaccepting tRNAs for Ser amino acid  
(a) 2 (b) 4 (c) 6 (d) 8
- (vii) First transposon elements were discovered in .....  
(a) Rice (b) Maize (c) Wheat (d) Pea
- (viii) .....enzyme is required for transposition  
(a) Transposase (b) Transferase (c) Esterase (d) peptidase

Q.2      Attempt any seven questions

2x7=  
14

- (i) Differentiate between prokaryotic and eukaryotic replication.
- (ii) What do you understand by polymerase switching?
- (iii) Draw a schematic diagram of RAN Polymerase II core promoter showing binding of various transcription factors.
- (iv) What is splicing?
- (v) Explain the structure of eukaryotic ribosome.

(P.T.O)

