SEAT No._____ No. of Printed Pages : 2

[48]

SARDAR PATEL UNIVERSITY

T.Y.B.sc. V SEMESTER EXAMINATION DECEMBER 2020

BIOCHEMISTRY:USO5CBCH01

TITLE: MOLECULAR BIOLOGY-I

Date:24/12/2020: Time: 2 :00 AM TO 4:00 PM TOTAL MARKS: 70

Q.1 Select proper option from following MCQ. [10]

1) In human mt DNA is _____.
   a) circular duplex b) circular ss c) linear ss d) linear ds
2) The word nucleic acid is given by _____.
   a) Altmen b) Mendel c) Miescher d) Beadle
3) In human cells have almost _____times as much DNA as Ecoli
   a) 400 b) 500 c) 600 d) 700
4) 5'-3' Exonulease activity is usually by DNA polymerase---------
   a) I b) II c) III d) IV
5) _____of protein help to synthesis primer
   a) DnaA b) DnaB c) DnaC d) DnaG
6) Polymerization rate of DNA polymerase III is ------nuc\sec
   a) 50-100 b) 100-150 c) 150-200 d) 250-1000
7) In transcription RNA sequence is complementary to _____strand.
   a) template b) coding c) primer d) all of these
8) 7-methyle guanosine is also known as _____
   a) cap0 b) cap1 c) cap2 d) cap3
9) _____is termination code.
   a) UAA b) UAG c) UGA d) All of these
10) _____toxin present in caster bean
   a) ampicilin b) puromycin c)Tetracycline d) ricin

Q2. **Fill in the blanks and true false** [8]

1. There are _____nucleosome associated with minichromosome.
2. _____ also known as DNA gyrase in bacteriya.
3. _____group of splicing required spliciosome
4. ____is initiation codon

True or false

5. Mitochondria also contain DNA.
6. There are normally about 300 molecules of DNA ligase present in prok.
7. Group I introne is self splicing.
8. Traslocation is required in initiation.

Q3. Answer in short. (Any ten) [20]

1. Define genome.
2. Give reason: mitochondriya is semi autonomus organelles.
3. Define mobile gene.
4. Define Replication.
5. What is primosome?
6. Define replisome.
7. Explain :spliciosome.
8. What is role of polyadenylate polymerase?
9. What is role of kinase?
10. Define translation.
11. Define genetic code.
12. Write use of mRNA in translation.

Q4.: Long answer questions. (any four)(8 marks each) [32]

1. Explain: salient feature of viral genome.
2. Short note on: salient feature of euk. Genome.
3. Explain: initiation of replication.
4. Explain: elongation of replication
5. Explain: Termination of transcription
6. Write short note on: polyA tail formation
7. Explain: initiation of translation.
8. Explain: inhibition of protein synthesis.

———X———