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	SEAT	No.
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No. of Printed Pages : 2

[94& A-62]

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SARDAR PATEL UNIVERSITY MICROBIOLOGY(USO5CMIC01)

_	Fundam	entals o	of molecular biology	2 K 1975
	09/04/2017 ("Moleday)		·	,
Time :	₹2:00 p.m to 5:00 p.m			TOTAL MARKS: 70
Note: Fi	gures on the right indicate mark	(S		
Que -1)	Attempt the following multiple	choice qu	estions.	(10)
1)	Pseudouridine is commonly fo	ound in _		
	(a) mRNA	c)	rRNA	
	(b) tRNA	d)	All of the above	
2)	A nucleoside is made of			
	(a) Nitrogen base +sugar		c) Nitrogen base	+ phosphates
	(b) Nitrogen base +sugar+	phospha	tes d) None of these	2
3)	Right handed form of DNA in	volves		
	(a) A - form	c)		
	(b) B - form	d)	All of the above	et e e e e e e e e e e e e e e e e e e
4)	RNA Replicase mediates			
	(a) DNA dependent DNA s	ynthesis	c) RNA dependent	DNA synthesis
	(b) DNA dependent RNA s	ynthesis	d) RNA dependent	RNA synthesis
5)	Telomerase is an example of		•	
	(a) DNA dependent DNA p	olymeras	se c) RNA dependent	DNA polymerase
	(D) DNA dependent RNA p	olymeras	e d) RNA dependent	RNA polymerase
6)	Lac repressor has binding site t	for	. •	1,
	(a) Lac inducer c)	Both a)	and b)	
	(b) Lac operator d	None of	these	4
7)	Reverse gyrase is an example of	of		•
	(a) DNA polymerase	c)	RNA polymerase	
	(b) DNA topoisomerase	d)	None of these	
. 8)	The first genetic code decipher	ed was		
	a) CCC c) AAA		
) UUU 🐪		
9)	Termination codon involves			
	(a) ÚAA	- c)	UAG	
	(b) UGA	d)	All of the above	
	Arthur Kornberg discovered			
	(a) DNA polymerase I		c) DNA polymerase III	
	(b) DNA polymerase II		d) None of the above	

CP. T. O.)

Que: 2 Attempt the following questions . (Any 10)	(20)		
1) Draw the structure of dATP and GTP.			
2) Differentiate between mRNA and rRNA. 3) Mention the role of:			
a) SSB protein b) Primase.			
4) Give the contribution of:			
a) Howard Temin b) Norman Pace 5) Define: a) Promoter b) Operon			
6) What is primosome?			
7) Write the key sequences on OriC of <i>E.coli</i> chromosome.			
8) What are weak promoters? Cite an example of it.9) Mention any two types of post translational modification.			
10) Give the contribution of Nirenberg			
11) Write the role of:			
a) Transformylase b) Amino acyl tRNA synthetase 12) Describe the contribution of Avery ,Macleod and McCarty.			
, , , , , , , , , , , , , , , , , , , ,			
Que: 3 (A) Describe organization of eukaryotic DNA.	(06)		
(B) Explain Watson & Crick's model of DNA	(04)		
OR	(04)		
Que: 3 (A) Discuss the experiments conducted by Griffith ,Harshey and Chase.	(06)		
(B) Describe the cloverleaf structure of tRNA and mention its significance.	(04)		
Que: 4 Explain initiation and elongation of DNA replication in E.coli.	(10)		
OR			
Que: 4 (A) What were the proposed modes of DNA replication? Explain an experiment			
that proves the actual mode of DNA replication.	(07)		
(B) Explain rolling circle model of DNA synthesis.	(03)		
Que: 5 Discuss the mechanism of transcription in E.coli.	(10)		
OR			
Que: 5 What are post transcriptional modifications? Describe RNA splicing in detail.	(10)		
Que: 6 Describe initiation & elongation of protein synthesis in prokaryotes.			
OR			
Que: 6 Discuss the salient features of genetic code.			
X	(10)		
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