

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name : Genetics

Subject Code : 4LS03MBO1/4SC03GEN1

Branch : B.Sc(Life Science)

Semester : 3

Date : 8/12/2015

Time : 2:30 To 5:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1	Attempt the following questions:	(14)
	a) Define genetics and gene.	1
	b) Define Reverse transcription.	1
	c) Define Codone.	1
	d) Define operon.	1
	e) Define translation.	1
	f) Define mycophage.	1
	g) Define traits.	1
	h) What is central dogma?	1
	i) State the law of Dominance.	1
	j) What is Product law?	1
	k) What is difference in genotypes and phenotypes?	1
	l) What are SSB proteins?	1
	m) What is role of cro gene	1
	n) Define replication	1
Q-2	Attempt all questions	(14)
A	What is Law of Dominance? Explain with example	7
B	Explain replication fork formation in DNA replication with diagram	7
Q-3	Attempt all questions	(14)
A	What is law of Independence assortment? Explain with example	7
B	Explain Structure of DNA in detail with diagram	7



Q-4	Attempt all questions	(14)
A	Explain DNA as genetic material by Griffith's experiment and Hershey- Chase's experiment	7
B	Explain various models of DNA replication.	7
Q-5	Attempt all questions	(14)
A	Explain all types of RNA in detail.	7
B	Explain Initiation in transcription with diagram	7
Q-6	Attempt all questions	(14)
A	What are Bacteriophage? Explain lytic cycle with diagram	7
B	Explain Conjugation in detail	7
Q-7	Attempt all questions	(14)
A	Explain types of mutations in detail	7
B	Explain Transformation in detail	7
Q-8	Attempt all questions	(14)
A	Explain Viroids in detail.	7
B	Explain lytic and lysis cycle control in Lamda Phage with diagram	7

