


DEPARTMENT OF GENERAL EDUCATION
DIET ERNAKULAM
VAIBHAVAM 2021
SSLC- ACADEMIC SUPPORT

T-26

BIOLOGY – TEST -III - ANSWER KEY
(UNIT – 6,7,8)

SCORE : 20

Question No	Indicators	Score	Total score
1	Uracil	1	1
2	Genome	1	1
3	(a) T (b) Tt	1	1
4	Ligase -- Genetic glue	1	1
5	Amino acid	1	1
6	Junk genes – Non functional genes are called junk genes Vectors - A gene from one cell is transferred to another cell by using suitable vectors	1 1	2
7	(a) Yes, This has triggered great hope in the control of genetic diseases. (b) Gene therapy is a method of treatment in which the genes that are responsible for diseases are removed and normal functional genes are inserted in their place.	1 1	2
8	mRNA forms from DNA → mRNA reaches ribosome → Different types of amino acid reached ribosome → Based on the information in mRNA, adding amino acids → Protein is synthesized	2	2
9	Draw corresponding paired nucleotides G – C T – A C – G A – T	1/2 x 4	2
10	(a) A – Phosphate molecule , B – Deoxyribose sugar molecules (b) RNA is another nucleic acid like DNA. RNA is also formed of nucleotides. (c) 	1/2 + 1/2 1 1	3
11	(a) 44XX(female) , 44XY (male) , 44XX(female) , 44XY (male) (b) The XY chromosomes of the father determine whether the child is male or female. The possibility for the birth of a male or a female child is equal (c) X and Y chromosome.	1 1 1	3

12	Atmosphere of primitive earth	Simple organic molecules	Complex organic molecules	1+1+1	3
	Hydrogen sulphide, Methane	Aminoacid, Monosaccharide	Protein, Lipid		
13	(A) DNA profiling	(II) The technology of testing the arrangement of nucleotides	1x4	4	
	(B) Gene mapping	(IV) The technology helped to identify the location of a gene in the DNA			
	(C) Gene therapy	(I) Treatment of genetic diseases.			
	(D) Genome	(III) The complete genetic material present in an organism			
14	(a) DNA Finger printing (b) Alec Jeffreys (c) To identify real parents in cases of parental dispute To identify persons found after long periods of missing due to natural calamities or wars.		1 1 1 + 1	4	