

OPEN STUDENT FOUNDATION

CHAPTER Biotech application

STD 12TH Biology

Date : 27/02/24

Total Marks: 30

PRACTICE SHEET DAY 8

Time: 1 hr

Section A

- Choose correct answer from the given options. [Each carries 1 Mark] [10]
- Bt cotton is not
(A) A GM plant (B) Insect resistant
(C) A bacterial gene expressing system (D) Resistant to all pesticides
 - C-peptide of human insulin is
(A) A part of mature insulin molecule
(B) Responsible for formation of disulphide bridges
(C) Removed during maturation of pro-insulin to insulin
(D) Responsible for its biological activity.
 - GEAC stands for
(A) Genome Engineering Action Committee
(B) Ground Environment Action Committee
(C) Genetic Engineering Approval Committee.
(D) Genetic and Environment Approval Committee
 - Choose the correct option regarding Retrovirus.
(A) An RNA virus that can synthesise DNA during infection
(B) A DNA virus that can synthesise RNA during infection
(C) A ssDNA virus
(D) A dsRNA virus
 - A probe which is a molecule used to locate homologous sequences in a mixture of DNA or RNA molecules could be
(A) A ssRNA (B) A ssDNA
(C) Either RNA or DNA (D) Can be ssDNA but not ssRNA
 - α -1 antitrypsin is
(A) An antacid (B) An enzyme
(C) Used to treat arthritis (D) Used to treat emphysema.
 - The site of production of ADA in the body is
(A) Erythrocytes (B) Lymphocytes (C) Blood plasma (D) Osteocytes
 - A protoxin is
(A) A primitive toxin. (B) A denatured toxin
(C) Toxin produced by protozoa (D) Inactive toxin
 - Golden rice is
(A) A variety of rice grown along the yellow river in China
(B) Long stored rice having yellow colour tint
(C) A transgenic rice having gene for β -carotene
(D) Wild variety of rice with yellow coloured grains.
 - The first clinical gene therapy was done for the treatment of
(A) AIDS
(B) Cancer

(C) Cystic fibrosis

(D) SCID (Severe Combined Immuno Deficiency resulting from deficiency of ADA)

Section B

● Write the answer of the following questions. [Each carries 2 Marks] [4]

1. Give scientific reason : In earlier times, Insulin was extracted from pancreas of slaughtered cattle.
2. How is a mature, functional insulin hormone different from its prohormone form ?

Section C

● Write the answer of the following questions. [Each carries 3 Marks] [12]

3. Explain RNA interference.
4. What is Genetically Modified Organisms (GMO) ? Give their beneficiary uses.
5. Give information about pest resistant plants.
6. Who was the first patient who was given gene therapy ? Why was the given treatment recurrent in nature ?

Section D

● Write the answer of the following questions. [Each carries 4 Marks] [4]

7. Give information about production of Genetically Engineered Insulin.



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Section [A] : 1 Mark MCQ

No	Ans	Chap	Sec	Que	Universal_Queld
1.	D	Chap 10	S5	1	QP23P11B1214_P1C10S5Q1
2.	C	Chap 10	S5	2	QP23P11B1214_P1C10S5Q2
3.	C	Chap 10	S5	3	QP23P11B1214_P1C10S5Q3
4.	A	Chap 10	S5	6	QP23P11B1214_P1C10S5Q6
5.	C	Chap 10	S5	5	QP23P11B1214_P1C10S5Q5
6.	D	Chap 10	S5	4	QP23P11B1214_P1C10S5Q4
7.	B	Chap 10	S5	7	QP23P11B1214_P1C10S5Q7
8.	D	Chap 10	S5	8	QP23P11B1214_P1C10S5Q8
9.	C	Chap 10	S5	11	QP23P11B1214_P1C10S5Q11
10.	D	Chap 10	S5	13	QP23P11B1214_P1C10S5Q13

Section [B] : 2 Marks Questions

No	Ans	Chap	Sec	Que	Universal_Queld
1.	-	Chap 10	S2	2	QP23P11B1214_P1C10S2Q2
2.	-	Chap 10	S7	11	QP23P11B1214_P1C10S7Q11

Section [C] : 3 Marks Questions

No	Ans	Chap	Sec	Que	Universal_Queld
3.	-	Chap 10	S1	4R	QP23P11B1214_P1C10S1Q4R
4.	-	Chap 10	S1	2R2	QP23P11B1214_P1C10S1Q2R2
5.	-	Chap 10	S1	4	QP23P11B1214_P1C10S1Q4
6.	-	Chap 10	S7	7	QP23P11B1214_P1C10S7Q7

Section [D] : 4 Marks Questions

No	Ans	Chap	Sec	Que	Universal_Queld
7.	-	Chap 10	S1	5	QP23P11B1214_P1C10S1Q5