A Division of Aggarwal Educare
Aggarwal CLASSES™

Daily Practice Problems

NEET BIOLOGY

Topic: Molecular basis of inheritance

Q.1 Peptide synthesis inside a cell takes place in

(a) mitochondria (b) chromoplast

(c) ribosomes (d) chloroplast

Q.2 The reaction, Amino acid + ATP → Aminoacyl AMP + P-P depicts

(a) amino acid assimilation (b) amino acid transformation

(c) amino acid activation (d) amino acid translocation

Q.3 Mrna directs the building of proteins through a sequence of

(a) introns (b) codons

(c) exons (d) anticodons

Q.4 Work of Beadle and Tatum on Neurospora crassa proved that

(a) replication of DNA is semi-conservative

(b) viruses have genetic material

(c) every gene is responsible for specific enzymes

(d) plant cells are totipotent

Q.5 Enzyme responsible for reverse transcription is

(a) reverse transcriptase (b) endonuclease

(c) hydrolase (d) polymerase

Q.6 Central dogma of protein synthesis is

(a) DNA → DNA → protein (b) RNA → DNA → protein

(c) protein → RNA → DNA (d) DNA → RNA → protein

Q.7 Which one of the following triplet codon is a chain terminaton codon?

(a) UGU (b) AAU

(c) UUG (d) UAG

Q.8 In genetic code, 61 codons code for 20 different types of amino acids. This is called

(a) colinearity (b) commaless

(c) degeneracy (d) non-ambiguity

Q.9 In Harshey and Chase experiements, radioactive ^{32}P was used to culture bacteriophages which resulted in radioactive

(a) viral DNA (b) bacterial capsule

(c) protein capsule of bacteriophage (d) plasma membrane of bacteria

Q.10 Alec Jeffreys developed the DNA fingerprinting technique. The probe he used was

(a) ribozyme (b) sex chromosomes

(c) SNP (d) VNTR

Q.11 The process of copying genetic information from one strand of DNA into RNA is termed as

(a) translation (b) transamination

(c) replication (d) transcription.

Q.12 In the Lac operon system, β -galactosidase is coded by

(a) z-gene (b) i-gene

(c) l-gene (d) y-gene

Q.13 During chain elongation, peptide bond is formed between carboxyl group of first and amino group of second amino acid by

(a) peptidyl transferase (b) taq polymerase

(c) DNA ligase (d) helicase

Q.14 What would be the correct base sequence in Mrna for the given DNA stand?

5'-AATGCCTTAAGC-3'

(a) 5'-GCUUAAGGCAUU-3' (b) 5'-UUACGGATTCG-3'

(c) 3'-UUACGGAAUUCG-5' (d) 3'-AAUGCCUUAUCG-5'

Q.15 Number of nitrogenous bases in a condon is

(a) 3 (b) 2

(c) 1 (d) 5

Q.16 Jumping genes in maize were discovered by

(a) Hugo de Vries (b) Barbara McClintock

(c) T H Morgan (d) Mendel

Q.17 The nucleotide sequence of an anticodon is complementary to nucleotide sequence in

(a) Trna (b) Mrna

(c) Rrna (d) DNA

Q.18 The number of punctuation condons in a genetic code are

(a) 2 + 3 = 5 (b) 1 + 3 = 4

(c) 1 + 1 = 2 (d) 3

Q.19 One gene-one enzyme hypothesis of Beadle and Tatum was experimentally proved on

(a) Saccharomyces (b) Neurospora crassa

(c) Lathyrus odoratus (d) Claviceps

Q.20 Repressor protein is produced by

(a) regulator gene (b) operator gene

(c) structural gene (d) promoter gene

Q.21 In a double-standed DNA, the sequence of bases in one strand is AGCTAAGC.

What is the complementary sequence on the other strand?

(a) TCGATTCG (b) UCGAUUCG

(c) AGCTAAGC (d) CAUTAUCG

Q.22 Shape of 3-D view of Trna is

(a) Z-shaped (b) X-shaped

(c) Y-shaped (d) L-shaped

Q.23 The structural genes in the Lac operon serially comprise

(a) y, a and z cistrons (b) a, y and z cistrons

(c) z, a and y cistrons (d) z, y and a cistrons

Q.24 DNA polymerase enzyme is required for synthesis of

(a) DNA from RNA (b) RNA from DNA

(c) DNA from DNA (d) RNA from RNA

Q.25 Identify from the following, which can give a complementary and palindromic sequence?

(a) 5’ ATATCC 3’ (b) 5’ CCGAAT 3’

(c) 5’ GAATTC 3’ (d) 3’ AGGTTC 5’

ANSWER KEY

Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Ans.	c	c	b	c	a	d	d	c	a	d
Que.	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Ans.	d	a	a	c	a	b	b	a	b	a
Que.	**21**	**22**	**23**	**24**	**25**					
Ans.	a	d	d	c	c					