

NEET BIOMOLECULES — NUCLEIC ACIDS — PYQS

Max. Marks: 44

Questions: 11

Section A (MCQ) — 11 questions

Q.1 The correct statement with regard to the secondary structure of DNA/RNA is : [NEET (UG) 2026]

- (1) DNA possesses a double strand helix structure and contains thymine as one of the four bases
- (2) DNA possesses a single strand helix structure and contains uracil as one of the four bases
- (3) RNA possesses a double strand helix structure and contains uracil as one of the four bases
- (4) RNA possesses a single strand helix structure and contains thymine as one of the four bases

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Q.2 Given below are two statements:

Statement-I: A unit formed by the attachment of a base to 1' position of sugar is known as nucleoside

Statement-II: When nucleoside is linked to phosphorous acid at 5' position of sugar moiety, we get nucleotide.

In the light of the above statements, choose the correct answer from the options given below:

[NEET (UG) 2023]

- (1) Both Statement-I and Statement-II are false
- (2) Statement-I is true but Statement-II is false
- (3) Statement-I is false but Statement-II is true
- (4) Both Statement-I and Statement-II are true

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Q.3 The correct statement regarding RNA and DNA, respectively is [NEET 2016 (Phase 1)]

- (1) The sugar component in RNA is arabinose and the sugar component in DNA is ribose
- (2) The sugar component in RNA is 2'-deoxyribose and the sugar component in DNA is arabinose
- (3) The sugar component in RNA is arabinose and the sugar component in DNA is 2'-deoxyribose
- (4) The sugar component in RNA is ribose and the sugar component in DNA is 2'-deoxyribose.

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Q.4 The central dogma of molecular genetics states that the genetic information flows from

[NEET 2016 (Phase 2)]

- (1) Amino acids → Proteins → DNA
- (2) DNA → Carbohydrates → Proteins
- (3) DNA → RNA → Proteins
- (4) DNA → RNA → Carbohydrates

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Q.5 In DNA, the linkages between different nitrogenous bases are [NEET 2013 (Karnataka)]

- (1) phosphate linkage
- (2) H-bonding
- (3) glycosidic linkage
- (4) peptide linkage

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Q.6 The segment of DNA which acts as the instructional manual for the synthesis of the protein is [AIPMT 2009]

- (1) ribose
- (2) gene
- (3) nucleoside
- (4) nucleotide

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Q.7 In DNA, the complementary bases are [AIPMT 2008]

- (1) adenine and guanine; thymine and cytosine
- (2) uracil and adenine; cytosine and guanine
- (3) adenine and thymine; guanine and cytosine
- (4) adenine and thymine; guanine and uracil.

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Q.8 RNA and DNA are chiral molecules, their chirality is due to [AIPMT 2007]

- (1) chiral bases
- (2) chiral phosphate ester units
- (3) D-sugar component
- (4) L-sugar component

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Q.9 A sequence of how many nucleotides in messenger RNA makes a codon for an amino acid? [AIPMT 2004]

- (1) Three
- (2) Four
- (3) One
- (4) Two

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Q.10 Chargaff's rule states that in an organism

[AIPMT 2003]

- (1) amount of adenine (A) is equal to that of thymine (T) and the amount of guanine (G) is equal to that of cytosine (C)
- (2) amount of adenine (A) is equal to that of guanine (G) and the amount of thymine (T) is equal to that of cytosine (C)
- (3) amount of adenine (A) is equal to that of cytosine (C) and the amount of thymine (T) is equal to that of guanine (G)
- (4) amounts of all bases are equal

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Q.11 Which of the following is correct about H-bonding in nucleotide?

[AIPMT 2001]

- (1) A–T, G–C
- (2) A–G, T–C
- (3) G–T, A–C
- (4) A–A, T–T

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	1	2	4	3	2	2	3	3	1	1	1