

CUET PG 2026 Life Science Question Paper(Memory Based)

Time Allowed :1 Hour 30 Mins	Maximum Marks :300	Total Questions :75
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General Instructions

Read the following instructions very carefully and strictly follow them:

- The exam lasts 90 minutes (1 hour 30 minutes).
- There are 75 Multiple Choice Questions (MCQs) to be answered.
- +4 marks for every correct answer. -1 mark (negative marking) for every incorrect answer. 0 marks for unanswered or un-attempted questions.
- For any discrepancy in questions, the English version is considered final (except for language-specific papers).
- Click one of the four options to choose an answer.
- You must click "Save & Next" to confirm your response. Only saved answers are considered for evaluation.
- Use "Mark for Review & Next" to flag a question for later. You can unselect or change your answer using the "Clear Response" button.
- All calculations must be done on the Rough Sheets provided at the centre. These must be returned to the invigilator after the exam.

1. Which protein is often referred to as the "guardian of the genome" due to its role in cell cycle arrest?

- (A) p21
- (B) p53
- (C) Cyclin D
- (D) Rb protein

2. What is the standard sequence of steps in a PCR (Polymerase Chain Reaction) cycle?

- (A) Annealing → Denaturation → Extension
- (B) Denaturation → Annealing → Extension
- (C) Extension → Denaturation → Annealing
- (D) Annealing → Extension → Denaturation

3. Which nitrogen source is most commonly used by plants for inorganic nitrogen fixation?

- (A) Nitrite (NO_2^-)
 - (B) Nitrate (NO_3^-)
 - (C) Ammonia (NH_3)
 - (D) Molecular nitrogen (N_2)
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4. During cellular fractionation, which organelle typically forms part of the pellet when centrifuged at 1000g for 10 minutes?

- (A) Ribosomes
 - (B) Nucleus
 - (C) Endoplasmic Reticulum
 - (D) Lysosomes
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5. In gel electrophoresis of DNA, toward which electrode do the DNA fragments migrate?

- (A) Positive electrode (Anode)
 - (B) Negative electrode (Cathode)
 - (C) Both electrodes equally
 - (D) They do not migrate
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6. What is the primary composition of lipid rafts found in plasma membranes?

- (A) Phospholipids and carbohydrates
 - (B) Cholesterol and sphingolipids
 - (C) Proteins and nucleic acids
 - (D) Glycoproteins and triglycerides
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7. Which immunoglobulin class is primarily involved in mucosal immunity?

- (A) IgG
 - (B) IgA
 - (C) IgM
 - (D) IgE
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8. According to Chargaff's rules, which base relationship is constant across all species?

- (A) $A = C$
- (B) $A = G$
- (C) $A = T$

(D) (G = T)

9. What happens to the V_{max} of an enzyme-catalyzed reaction when the substrate concentration is equal to the K_m ?

(A) ($V = V_{max}$)

(B) ($V = \frac{V_{max}}{2}$)

(C) ($V = 2V_{max}$)

(D) ($V = 0$)

10. Which hormone is primarily responsible for the "fight or flight" response in human physiology?

(A) Cortisol

(B) Adrenaline (Epinephrine)

(C) Insulin

(D) Thyroxine

11. In the lac operon, which molecule acts as the inducer to initiate transcription?

(A) Lactose

(B) Allolactose

(C) Glucose

(D) Galactose

12. Which technique is specifically used to detect the presence of a specific DNA sequence in a sample?

(A) Western blotting

(B) Southern blotting

(C) Northern blotting

(D) ELISA

13. What is the role of Topoisomerase during the process of DNA replication?

(A) Synthesizes RNA primers

(B) Unwinds the DNA helix

(C) Relieves supercoiling ahead of the replication fork

(D) Joins Okazaki fragments

14. Which amino acid is the universal initiator for protein synthesis in eukaryotes?

- (A) Methionine
- (B) Valine
- (C) Leucine
- (D) Alanine

15. What are the two primary components of a Typhoid Vi vaccine?

- (A) Vi capsular polysaccharide and carrier protein
 - (B) Lipopolysaccharide and toxin
 - (C) Attenuated bacteria and adjuvant
 - (D) DNA plasmid and viral vector
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