

# GATE 2026 XL Question Paper with Solutions

Time Allowed :3 Hour	Maximum Marks :100	Total Questions :65
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## General Instructions

Please read the following instructions carefully:

- This question paper is divided into three sections:
  - General Aptitude (GA):** 10 questions (5 questions  $\times$  1 mark + 5 questions  $\times$  2 marks) for a total of 15 marks.
  - Environmental Science and Engineering + Engineering Mathematics:**
    - Part A (Mandatory):** 36 questions (1 questions  $\times$  1 mark + 19 questions  $\times$  2 marks) for a total of 55 marks.
    - Part B (Section 1):** Candidates can choose either Part B1 (Surveying and Mapping) or Part B2 (Section 2). Each part contains 16 questions (8 questions  $\times$  1 mark + 11 questions  $\times$  2 marks) for a total of 30 marks.
- The total number of questions is **65**, carrying a maximum of **100 marks**.
- The duration of the exam is **3 hours**.
- Marking scheme:
  - For 1-mark MCQs,  $\frac{1}{3}$  mark will be deducted for every incorrect response.
  - For 2-mark MCQs,  $\frac{2}{3}$  mark will be deducted for every incorrect response.
  - No negative marking for numerical answer type (NAT) questions.
  - No marks will be awarded for unanswered questions.
- Ensure you attempt questions only from the optional section (Part B1 or Part B2) you have selected.
- Follow the instructions provided during the exam for submitting your answers.

1. Which of the following amino acids is essential in human diet?

- (A) Alanine
- (B) Glycine
- (C) Valine
- (D) Glutamic acid

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2. Which phase of the cell cycle is known as the resting phase?

- (A) G<sub>1</sub> phase
  - (B) S phase
  - (C) G<sub>2</sub> phase
  - (D) M phase
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**3. Which of the following is a stop codon?**

- (A) AUG
  - (B) UGG
  - (C) UGA
  - (D) UAC
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**4. The process of conversion of nitrogen into ammonia by bacteria is called:**

- (A) Nitrification
  - (B) Denitrification
  - (C) Nitrogen fixation
  - (D) Ammonification
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**5. Which pyramid is always upright in an ecosystem?**

- (A) Pyramid of energy
  - (B) Pyramid of biomass
  - (C) Pyramid of numbers
  - (D) All of the above
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**6. The DNA double helix is stabilized primarily by:**

- (A) Covalent bonds
- (B) Hydrogen bonds
- (C) Ionic bonds

(D) Van der Waals forces

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**7. Which enzyme is used to join two DNA fragments in genetic engineering?**

- (A) Restriction endonuclease
  - (B) DNA polymerase
  - (C) RNA polymerase
  - (D) DNA ligase
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