

GATE 2026 MN 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. The primary purpose of mine ventilation is to:

- (A) Cool the mine workings
- (B) Supply oxygen and dilute hazardous gases
- (C) Increase production rate
- (D) Reduce roof pressure

2. The Mohr–Coulomb failure criterion is mainly used to describe:

- (A) Elastic behavior of rocks
 - (B) Plastic flow of rocks
 - (C) Shear failure of rocks
 - (D) Tensile failure of rocks
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3. The instrument commonly used for measuring horizontal and vertical angles in mines is:

- (A) Dumpy level
 - (B) Plane table
 - (C) Theodolite
 - (D) Sextant
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4. Which one of the following is the most widely used method for coal extraction in surface mines?

- (A) Glory hole mining
 - (B) Strip mining
 - (C) Block caving
 - (D) Cut and fill mining
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5. In bord and pillar mining, the main load-bearing elements are:

- (A) Roof bolts
 - (B) Timber supports
 - (C) Pillars
 - (D) Side walls
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6. Which gas is mainly responsible for explosions in coal mines?

- (A) Carbon monoxide
- (B) Carbon dioxide

- (C) Methane
 - (D) Hydrogen sulphide
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7. The machine used for drilling blast holes in hard rock mines is:

- (A) Longwall shearer
 - (B) Continuous miner
 - (C) Jack hammer drill
 - (D) Belt conveyer
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