

# CUET PG 2026 Mechanical Engineering Question Paper (Memory Based)

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| Time Allowed :1 Hours 30 min | Maximum Marks :300 | Total Questions :75 |
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## General Instructions

1. The exam lasts 90 minutes (1 hour 30 minutes).
2. There are 75 Multiple Choice Questions (MCQs) to be answered.
3. +4 marks for every correct answer. -1 mark (negative marking) for every incorrect answer. 0 marks for unanswered or un-attempted questions.
4. For any discrepancy in questions, the English version is considered final (except for language-specific papers).
5. Click one of the four options to choose an answer.
6. You must click "Save & Next" to confirm your response. Only saved answers are considered for evaluation.
7. Use "Mark for Review & Next" to flag a question for later. You can unselect or change your answer using the "Clear Response" button.
8. 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 of the following is a coarse crusher used in mechanical operations?**

- (A) Ball Mill
- (B) Jaw Crusher
- (C) Hammer Mill
- (D) Fluid Energy Mill

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**2. Forces whose line of action passes through a common point are known as what?**

- (A) Parallel Forces
- (B) Coplanar Forces
- (C) Concurrent Forces
- (D) Collinear Forces

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**3. For a DC power source for arc welding with characteristics  $3V + I = 240$ , what voltage  $V$  yields maximum power?**

- (A) 20 V
- (B) 30 V
- (C) 40 V

(D) 60 V

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**4. The polar section modulus for a circular shaft of diameter  $d$  is given by which formula?**

(A)  $\frac{\pi d^3}{16}$

(B)  $\frac{\pi d^3}{32}$

(C)  $\frac{\pi d^4}{32}$

(D)  $\frac{\pi d^4}{16}$

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**5. What is the natural frequency of a free vibration system defined by the equation  $\ddot{X} + 36\pi^2 X = 0$ ?**

(A) 3 Hz

(B) 6 Hz

(C) 12 Hz

(D) 18 Hz

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**6. Which translatory joint in a robot configuration is known as a sliding joint?**

(A) Revolute Joint

(B) Prismatic Joint

(C) Cylindrical Joint

(D) Spherical Joint

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**7. A ball is thrown vertically upward with a velocity of 5 m/s; if it takes 10 sec for the upward journey, how long does the downward journey take?**

(A) 5 s

(B) 10 s

(C) 15 s

(D) 20 s

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**8. What is the stress developed when a steel rod of radius 10 mm is stretched by a 100 kN force?**

(A) 159 MPa

(B) 318 MPa

- (C) 100 MPa
  - (D) 200 MPa
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**9. Which mechanical drive is specifically used to impart a reciprocating or oscillatory motion to another body in contact?**

- (A) Gear Drive
  - (B) Belt Drive
  - (C) Cam and Follower
  - (D) Chain Drive
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**10. When a ball mill rotates at a speed higher than the critical speed, what happens to its efficiency?**

- (A) It increases continuously
  - (B) It remains constant
  - (C) It decreases
  - (D) It becomes maximum
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