

TS PGECET 2025 Question Paper

Time Allowed :2 Hours	Maximum Marks :120	Total questions :120
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. **Mode of Examination:** Online (Computer-based examination)
2. **Medium of Exam:** English
3. **Duration of Exam:** 2 hours
4. **Type of Questions:** Multiple-choice questions
5. **Number of Questions:** 120 Questions
6. **Total Marks:** 120 Marks
7. **Marking Scheme:**
 - 1 mark for each correct answer.
 - No negative markings for incorrect answers.

1. What is the principle of the operation of a hydraulic press?

- (A) Pascal's Law
 - (B) Archimedes' Principle
 - (C) Bernoulli's Theorem
 - (D) Hooke's Law
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2. Which of the following elements has the highest atomic number?

- (A) Uranium
 - (B) Neptunium
 - (C) Plutonium
 - (D) Rutherfordium
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3. Which of the following is a valid method for solving a system of linear equations?

- (A) Gaussian Elimination
 - (B) Cramer's Rule
 - (C) Matrix Inversion Method
 - (D) All of the above
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4. Which of the following is the unit of electric charge?

- (A) Volt
 - (B) Ampere
 - (C) Coulomb
 - (D) Ohm
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5. Which of the following represents the correct relationship between the speed of light c , frequency ν , and wavelength λ ?

- (A) $c = \nu\lambda$
- (B) $c = \lambda\nu^2$
- (C) $c = \frac{\nu}{\lambda}$
- (D) $c = \lambda^2\nu$

6. Which of the following is a type of nuclear decay that involves the emission of an alpha particle?

- (A) Alpha decay
- (B) Beta decay
- (C) Gamma decay
- (D) Neutron emission

7. The process of removing an electron from an atom is called:

- (A) Ionization
- (B) Dissociation
- (C) Deionization
- (D) Oxidation

8. What is the unit of electrical resistance?

- (A) Ampere
- (B) Volt
- (C) Ohm
- (D) Watt

9. Which of the following is the correct relationship for Ohm's Law?

- (A) $V = I \times R$
 - (B) $V = R \div I$
 - (C) $I = V \div R$
 - (D) $R = V \div I$
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10. Which of the following is an example of an exothermic reaction?

- (A) Photosynthesis
 - (B) Combustion of methane
 - (C) Melting of ice
 - (D) Evaporation of water
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