

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. If the roots of the quadratic equation $ax^2 + bx + c = 0$ are real and distinct, what is the condition on the discriminant?

- (A) $b^2 - 4ac > 0$
 - (B) $b^2 - 4ac = 0$
 - (C) $b^2 - 4ac < 0$
 - (D) None of the above
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2. Which of the following is a characteristic of a deadlock in a computer system?

- (A) Mutual exclusion
 - (B) Hold and wait
 - (C) Circular wait
 - (D) All of the above
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3. In an RLC series circuit, at resonance, the impedance is:

- (A) Minimum
 - (B) Maximum
 - (C) Equal to the sum of R, L, and C
 - (D) Zero
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4. The efficiency of a Carnot engine depends on:

- (A) Temperature of the hot reservoir
 - (B) Temperature of the cold reservoir
 - (C) Both A and B
 - (D) None of the above
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5. The modulus of elasticity of concrete is influenced by:

- (A) Age of concrete
- (B) Type of aggregate
- (C) Water-cement ratio
- (D) All of the above

6. In a batch reactor, the reaction rate is:

- (A) Constant
- (B) Decreases with time
- (C) Increases with time
- (D) Zero

7. Which of the following is a method of gene transfer in plants?

- (A) Agrobacterium-mediated transformation
- (B) Electroporation
- (C) Microinjection
- (D) All of the above

8. The first-pass metabolism refers to:

- (A) Drug metabolism in the liver before reaching systemic circulation
- (B) Drug absorption in the gastrointestinal tract
- (C) Drug excretion through the kidneys
- (D) Drug distribution to tissues

9. The term 'Feng Shui' is associated with:

- (A) Urban planning
- (B) Environmental psychology
- (C) Traditional Chinese geomancy
- (D) Sustainable architecture

10. A thermocouple is used to measure:

- (A) Temperature
 - (B) Pressure
 - (C) Flow
 - (D) Level
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