VITEEE 2026 April 30 Shift 2

Question Paper

Conducted by VIT Vellore

General Instructions

(i) **Duration:** The total duration of the examination is 2.5 hours (150 minutes).

(ii) **Total Marks:** The complete paper carries a maximum of 500 marks.

(iii) **Structure:** The paper has 4 Sections:

- **Part 1:** 35 Multiple Choice Questions (Physics).
- **Part 2:** 35 Multiple Choice Questions (Chemistry).
- **Part 3:** 40 Multiple Choice Questions (Mathematics/Biology).
- **Part 4:** 10 Multiple Choice Questions (Aptitude).
- **Part 5:** 5 Multiple Choice Questions (English)

(iv) **Compulsory Questions:** All 125 questions are compulsory.

(v) Each question has four options. Only **one** option is correct.

(vi) **Correct Answer:** +4 marks.

(vii) **Incorrect Answer:** −1 (Negative marking).

(viii) **Unanswered/Marked for Review:** 0 marks.

1. If $z = \frac{3i}{2}$, what is the value of $\arg(z)$?

(A) 0

(B) $\frac{\pi}{2}$

(C) π

(D) $\frac{3\pi}{2}$

2. Find the missing number in the series: $2, 6, 12, 20, 30, \_\_$.

(A) 40

(B) 42

(C) 44

(D) 46

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3. Calculate the ratio of de Broglie wavelengths of an electron (λ_e) and a proton (λ_p) moving with the same velocity.

(A) $\frac{m_e}{m_p}$

(B) $\frac{m_p}{m_e}$

(C) 1

(D) $\frac{m_e^2}{m_p^2}$

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4. What is the major product formed when phenol reacts with bromine water?

(A) Bromobenzene

(B) 2-bromophenol

(C) 2,4-dibromophenol

(D) 2,4,6-tribromophenol

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5. A bag contains 5 red and 7 blue balls. Find the probability of drawing 2 red balls without replacement.

(A) $\frac{5}{33}$

(B) $\frac{10}{33}$

(C) $\frac{25}{144}$

(D) $\frac{7}{33}$

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6. What happens to the magnetic field at the center of a circular coil if the number of turns is doubled while keeping the current constant?

(A) It becomes half $\left(\frac{B}{2}\right)$

(B) It remains the same

(C) It doubles ($2B$)

(D) It becomes four times ($4B$)

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7. Identify the IUPAC name for the coordination compound $[Co(NH_3)_6]Cl_3$.

(A) Hexaamminecobalt(II) chloride

(B) Hexaamminecobalt(III) chloride

(C) Hexamminecobalt(III) chloride

(D) Hexaamminecobalt(II) trichloride

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8. Find the value of k if the lines $\frac{x-1}{2} = \frac{y-2}{3} = \frac{z-3}{4}$ and $\frac{x-4}{k} = \frac{y-1}{2} = \frac{z}{1}$ are perpendicular.

(A) 5

(B) -5

(C) 2

(D) -2

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9. Which of the following is an example of a condensation polymer?

(A) Polyethylene

(B) PVC

(C) Nylon 6,6

(D) Polystyrene

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10. An object is placed 15 cm in front of a concave mirror of focal length 10 cm. Find the position and nature of the image.

(A) 30 cm behind mirror, virtual and erect

(B) 30 cm in front of mirror, real and inverted

(C) 15 cm behind mirror, virtual

(D) 20 cm in front of mirror, real
