

KEAM 2026 Pharmacy April 18

Question Paper (Memory-Based)

Conducted by CEE Kerala



General Instructions

- (**Duration:** The total duration of the examination is 1.5 hours (90 minutes).
- (**Total Marks:** The complete paper carries a maximum of 300 marks.
- (**Structure:** The paper has 2 Sections:
 - **Section A:** 30 Multiple Choice Questions (Physics).
 - **Section B:** 45 Multiple Choice Questions (Chemistry).
- (**Compulsory Questions:** All 75 questions are compulsory.
- (Each question has four options. Only **one** option is correct.
- (**Correct Answer:** +4 marks.
- (**Incorrect Answer:** -1 (Negative marking).
- (**Unanswered/Marked for Review:** 0 marks.

Physics

1. When a magnetic field is applied on a stationary electron, it

- (A) remains stationary
- (B) spins about its own axis
- (C) moves in the direction of the field
- (D) moves perpendicular to the direction of the field
- (E) moves opposite to the direction of the field

2. A particle of mass m and charge q with an initial velocity v is subjected to a uniform magnetic field B along the vertical direction. The particle will

- (A) follow a circular path if v is along the vertical direction
 - (B) make helical motion if v is along the horizontal direction
 - (C) make helical motion if v is neither parallel nor orthogonal to B
 - (D) always make circular motion
 - (E) always make helical motion
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3. The resistor $R_1 = 30\ \Omega$ and $R_2 = 10\ \Omega$ are connected in parallel to a 20 V battery. Find the heat developed in the resistor R_1 in one minute

- (A) 600 J
 - (B) 800 J
 - (C) 6000 J
 - (D) 8000 J
 - (E) 7000 J
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4. The velocity and acceleration of a particle performing simple harmonic motion have a steady phase relationship. The acceleration shows a phase lead over the velocity in radians of

- (A) $+\pi$
 - (B) 0
 - (C) $+\pi/2$
 - (D) $-\pi/2$
 - (E) $-\pi$
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5. The quantity which has the same dimensions as that of gravitational potential is

- (A) latent heat
- (B) impulse
- (C) angular acceleration
- (D) specific heat capacity
- (E) Planck's constant

Chemistry

1. The equilibrium concentrations of the species in the reaction $A + B \rightleftharpoons C + D$ are 2, 3, 10 and 6 mol L^{-1} respectively at 300 K. ΔG^0 for the reaction is

($R = 2 \text{ cal/mol K}$)

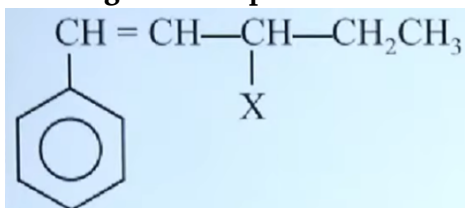
- (A) -13.73 cal
- (B) 1372.60 cal
- (C) -137.26 cal
- (D) -1381.80 cal

2. What is the IUPAC name of the organic compound formed in the following chemical reaction?

Acetone $\xrightarrow{\text{(i) } C_2H_5MgBr, \text{ dry ether}}$ (ii) H_2O, H^+ Product

- (A) Pentan-2-ol
- (B) Pentan-3-ol
- (C) 2-methyl butan-2-ol
- (D) 2-methyl propan-2-ol

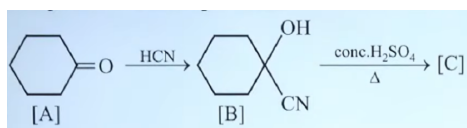
3. The given compound



is an example of

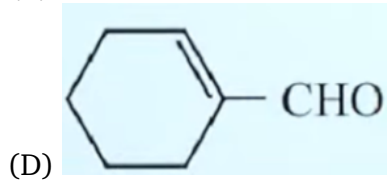
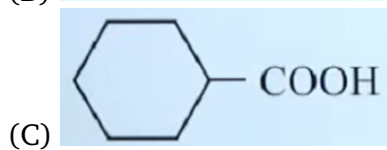
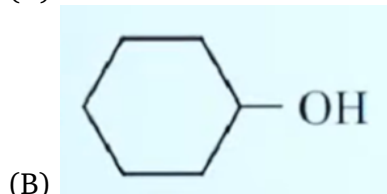
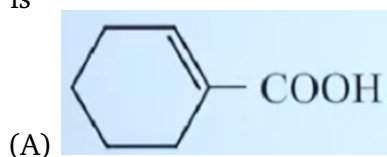
- (A) vinylic halide
- (B) benzylic halide
- (C) aryl halide
- (D) allylic halide

4. Complete the following reaction :



C

is



5. Which one of the following alcohols reacts instantaneously with Lucas reagent?

- (A) $\text{CH}_3 - \text{CH}(\text{CH}_3) - \text{CH}_2\text{OH}$
 (B) $\text{CH}_3 - \text{C}(\text{CH}_3)(\text{OH}) - \text{CH}_3$
 (C) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2\text{OH}$
 (D) $\text{CH}_3 - \text{CH}_2 - \text{CH}(\text{OH}) - \text{CH}_3$