

AP EAPCET 2026 May 20 Shift 2

Question Paper (Memory Based)

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General Instructions

- (i) The test is of 3 hours duration.
- (ii) This test paper consists of 160 questions. The maximum marks are 160.
- (iii) Physics and Chemistry contains 40 questions each and Biology contains 80 questions.
- (iv) Each question carries +1 marks for correct answer and there is no negative marking for wrong answer.

Physics

1. Pressure of 2×10^6 Pa causes volume decrease of 0.1% in a material. Bulk modulus is:

- (A) 2×10^9 Pa
- (B) 2×10^{10} Pa
- (C) 1×10^{10} Pa
- (D) 5×10^9 Pa

2. Water flows in a horizontal pipe. At a point where speed is 2 m/s, pressure is 2000 Pa. At another point, speed becomes 4 m/s. Find pressure at second point. (Density = 1000 kg/m^3)

- (A) 8000 Pa
- (B) 14000 Pa
- (C) 2000 Pa
- (D) -4000 Pa

3. Two charges $+2\mu\text{C}$ and $-2\mu\text{C}$ are placed 2 m apart. Electric field at midpoint is:

- (A) 0
- (B) $9 \times 10^3 \text{ N/C}$
- (C) $18 \times 10^3 \text{ N/C}$
- (D) $36 \times 10^3 \text{ N/C}$

4. A capacitor of capacitance $2\mu\text{F}$ is charged to 10 V. Energy stored is:

- (A) $50\mu\text{J}$
- (B) $100\mu\text{J}$
- (C) $200\mu\text{J}$
- (D) $400\mu\text{J}$

5. In a loop, EMF = 10 V and total resistance = 5Ω . Current in circuit is:

- (A) 1 A
- (B) 2 A
- (C) 5 A
- (D) 10 A

6. A long solenoid has 500 turns per meter and carries a current of 5 A. Magnetic field inside the solenoid is: ($\mu_0 = 4\pi \times 10^{-7}$)

- (A) $2\pi \times 10^{-3} \text{ T}$
- (B) $\pi \times 10^{-3} \text{ T}$
- (C) $4\pi \times 10^{-3} \text{ T}$

(D) 10^{-3} T

Chemistry

7. At 273 K the maximum work done when pressure on 10g of hydrogen is reduced from 10atm to 1 atm under isothermal reversible conditions is

- (A) -52.18kj
 - (B) +26.09kj
 - (C) -26.09kj
 - (D) +52.18kj
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8. The signs of ΔH and ΔS for a reaction to be spontaneous at all temperatures respectively are

- (A) Positive , positive
 - (B) Positive , negative
 - (C) Negative , negative
 - (D) Negative , positive
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Botany

9. A cell biologist is studying an organelle described as the "ribosomal factory" of the cell. This structure is the:

- (A) Golgi apparatus
- (B) Nucleolus
- (C) Mitochondrion
- (D) Lysosome

10. In Gymnosperms like *Pinus*, the female gametophyte is retained within the:

- (A) Microsporangium
- (B) Pollen grain
- (C) Megasporangium (Ovule)
- (D) Archegonium only

11. Which of the following is the "Mobile Electron Carrier" that transfers electrons from Complex III to Complex IV in the Mitochondrial Electron Transport System?

- (A) Ubiquinone
- (B) Cytochrome c
- (C) NADH dehydrogenase
- (D) ATP synthase

Zoology

12. Which of the following is an example of an Anadromous fish (migrates from sea to fresh water to spawn)?

- (A) *Labeo*
- (B) *Hilsa*
- (C) *Anguilla*
- (D) *Channa*

13. Kupffer's cells are specialized macrophages found in the:

- (A) Small intestine
 - (B) Thyroid gland
 - (C) Liver
 - (D) Pancreas
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14. Select the correct sequence of cranial meninges from the Inner (brain surface) to the Outer (skull) side:

- (A) Piamater → Arachnoid membrane → Duramater
 - (B) Duramater → Arachnoid membrane → Piamater
 - (C) Arachnoid membrane → Duramater → Piamater
 - (D) Duramater → Piamater → Arachnoid membrane
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