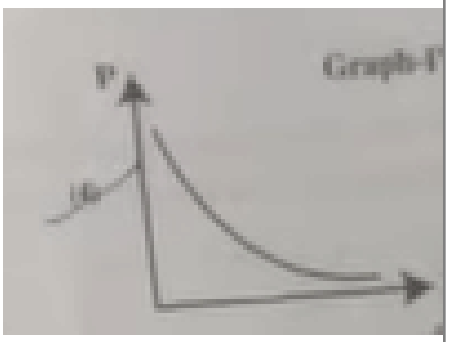
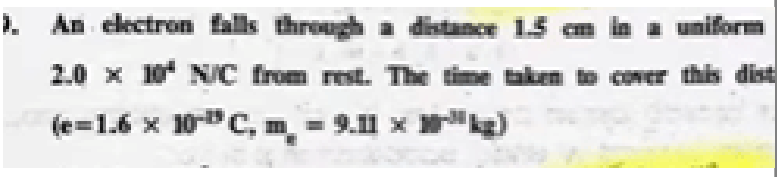
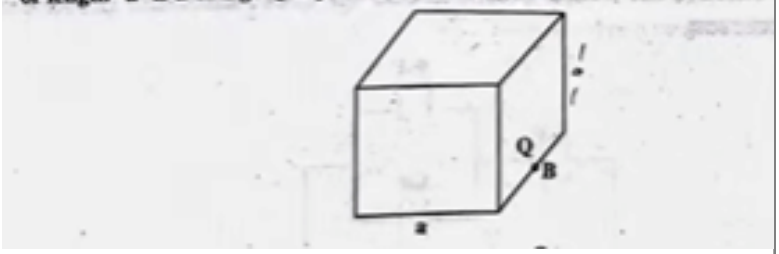
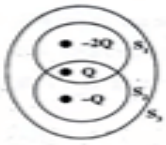
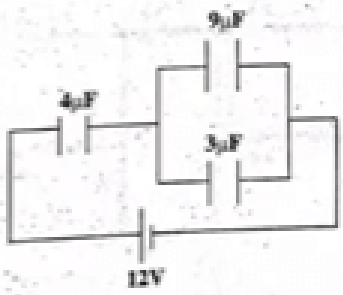
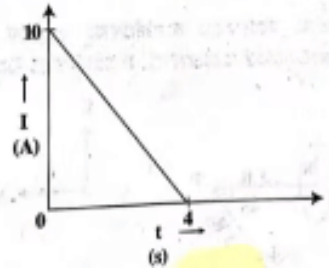
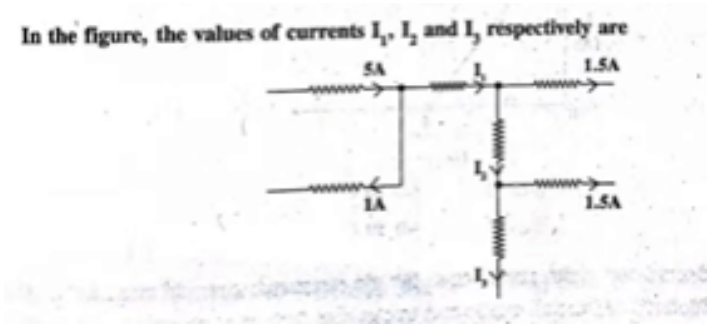
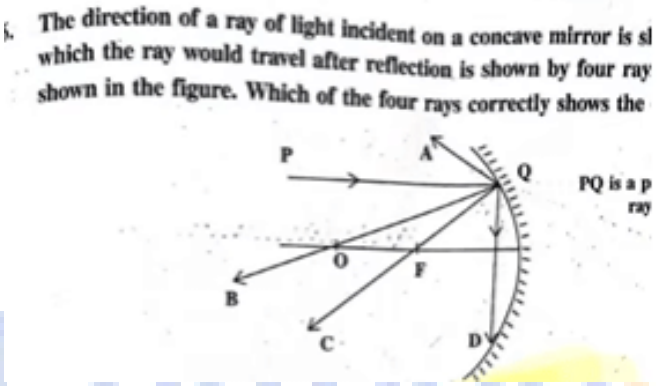
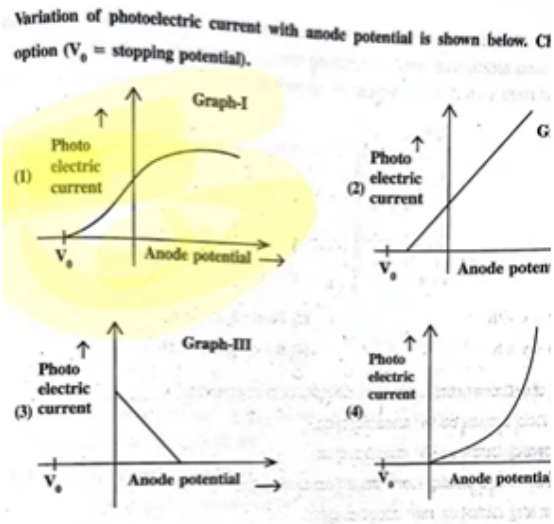
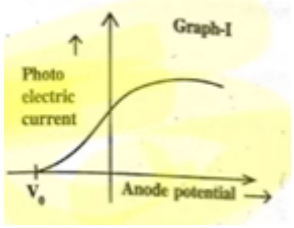
KCET Physics Answer Key 2026 (Unofficial)

Questions	KCET Answer Key 2026 (Physics)
1. The graph of pressure P and volume V of 1 mole of an ideal gas at constant T	4. 
2. A mass of 1 kg is executing SHM. Its displacement is given by x = 6.0 cos. What is the maximum kinetic energy?	4. 18 J
3. A source of frequency v gives 6 beats/second when sounded with a source of fr The second Harmonic of frequency 2 v of the source gives & beats/second whet source of frequency 420 Hz. The value of v is	2. 206 Hz
4. Following are statements of a few processes taking place in nature. I. Free expansion of a gas II. The combustion of a mixture of petrol and air, ignited by a spark III. The leaking of gas from the kitchen cylinder IV. The transfer of heat from one heated part of a liquid to the other colder part Which of these processes are irreversible in nature?	4. I, II, III and IV
5. 	1. 2.9×10^{-9}

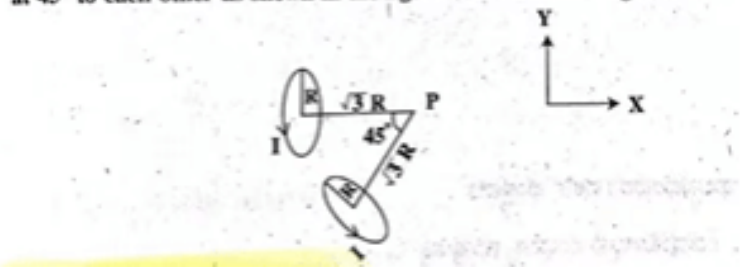
6. What will be the total electric flux through the faces of the cube as given in th of length 'a' if a charge Q is placed at B, midpoint of an edge of the cube (s  	3. $Q/4\ c_0$
7. Consider three point charges – 2Q, Q and – Q and three surfaces S_1, S_2 and figure. Match the entries of List-I with that of List-II. List-I (a) Net flux through S_1 (b) Net flux through S_2 (c) Net flux through S_3 List-II (i) $\frac{-2Q}{\epsilon_0}$ (ii) $\frac{-Q}{\epsilon_0}$ (iii) Zero  	4.. a- ii b- iii c-i
8. A parallel plate capacitor has a uniform electric field 'E' in the space If the distance between the plates is 'd' and area of each plate is 'A', the capacitor is	3. $1/2 \in_0 E^2$ A d
9. In the circuit shown in the figure, the potential difference across the 4μ  	3. 9 V

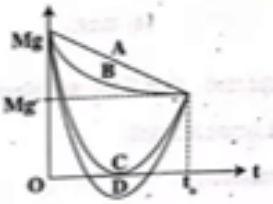
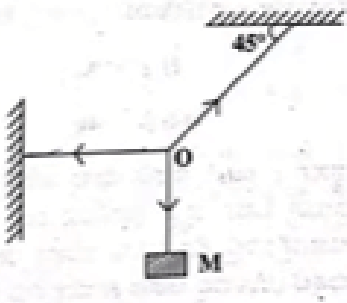
10. An electric dipole of dipole moment $\vec{P}$ is placed in the uniform electric field $\vec{E}$. the following statements are correct? Statement I: The torque on the dipole is $\vec{P} \times \vec{E}$ Statement II: The potential energy of the dipole is $-\vec{P}.\vec{E}$ Statement III: The net force on the dipole is non zero	2. I and II only
11. A 200 J of work is done in moving a charge 5C from a point A where the pote another point B where potential is V volt. The value of V at B is	3. 40 V
12	2. X is n-type, Y is p type and the junction is forward biased
13. A car covers the first half of the distance between two places at 40 km/t 50 km/h. The average speed of the car is	1. 45.00 km/h
14. The number of electrons moving per second through the filament of a 120 V is no (e=1.6 x 10^{-19} C)	3. 3.1x 10^{19}
15. Given below are two statements: Statement I: The resistivity of a conductor is independent of its temper Statement II: The resistivity of a semiconductor decreases with an increase Select the correct option. (1) Both Statement I and Statement II are false (2) Both Statement I and Statement II are true (3) Statement I is true but Statement II is false (4) Statement I is false but Statement II is true	(4) Statement I is false but Statement II is true
16. Current flowing through a wire decreases linearly from 10 A to zero in 4 Find the total charge flowing through the wire in the given time interv 	2. 20 C

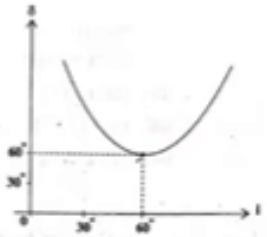
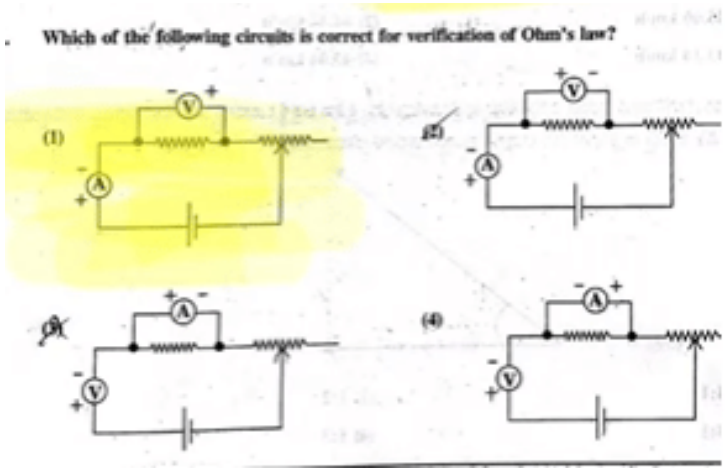
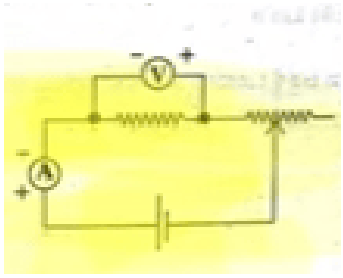
17. In a conducting region, 1019 electrons and 10" protons move to the lei move to the right per second. The resulting electric current is (e = 1.6)	(4) 1.6 A towards right
18. 	3. 4A, 2.5 A, and 1 A
19. 	2. C
20. The incorrect statement about refractive index for a pair of medi (1) It depends upon nature of the first medium (2) It depends upon nature of the second medium (3) It depends upon wavelength of light (4) It depends upon angle of incidence	(4) It depends upon angle of incidence
21. The critical angle for a monochromatic light going from medium speed of light in medium A is V, then the speed of light in medium	3. V/sinθ
22. What range of electromagnetic spectrum is considered as light?	3. 400 nm to 700 nm
23. In Young's double slit experiment, how many maxima can be seen maxima) if d = (5λ)/2, where A is the wavelength of light and d is the distance	1. 5

24. In the figure shown, the conductor PQ of length l is moved from $x = 0$ to $x = 2b$ with a constant velocity $\vec{v}$. A uniform magnetic field $\vec{B}$ is perpendicula the paper and extends from $x = 0$ to $x = b$ and it is zero from $x > b$. The m induced in the conductor is 	3. B/ v; 0 < x < b
25. In a circuit containing a pure resistor connected to an AC source (1) Voltage leads the current by 90° (2) Current leads the voltage by 90° (3) Voltage and current are in same phase with each other (4) Current leads the voltage by 180"	(1) Voltage leads the current by 90°
26. A light bulb rated 100 W is connected to an AC source of 220 V, 50 Hz. The RMS of the bulb is	(1) 0.454 A
27. A small town with a demand of 900 kW of electric power at 220 V is situated from an electric power generating station. The two-wire line has resistance pe 5 x 10^{-4} Ω m^{-1}. The town gets power from the line through 45000 V to a transformer at a substation in the town. The line power loss in the form of heat?	(2) 8 kW
28. Variation of photoelectric current with anode potential is shown below. Cl option (V_0 = stopping potential). 	(1) 

29. In Faraday-Henry's experiment, a coil is connected to a galvanometer. For pointer in the galvanometer, which of the following statement/s is/are wrong? The pointer in the galvanometer deflects - (a) When the bar magnet is moved towards the stationary coil along its axis (b) When the bar magnet is moved away from the stationary coil along its axis (c) When the coil is moved towards the stationary bar magnet along its axis (d) When the coil and the magnet are moved without relative motion between	(4) Only D
30. If a paramagnetic bar is brought near a bar magnet, then it is (1) Attracted by both the poles of the bär magnet (2) Repelled by both the poles of the bar magnet (3) Attracted by the South-pole and repelled by the North-pole of the t (4) Attracted by the North-pole and repelled by the South-pole of the t	(1) Attracted by both the poles of the bär magnet
31. Pick out the WRONG statements about magnetic substances (x=magnetic susceptibility) (μ, relative permeability). 1. Substances with-1< x< 0 are diamagnetic II. Substances with x>>1 are paramagnetic III. Substances with x<<1 are ferromagnetic IV. Substances with μ>>1 are ferromagnetic	(3) II and III
32. Work function of the metal is (1) Maximum possible energy acquired by an electron (2) Equal for all metals (3) Minimum energy required by an electron to just eject from metal (4) Maximyurn energy which is given to electron to move out of metal	(4) Maximyurn energy which is given to electron to move out of metal
33. A point charge is placed in a moving train. A passenger A sitting in the t the ground observe the fields due to this charge. Then (1) A observes both electric and magnetic fields (2) B observes both electric and magnetic fields (3) A observes only magnetic field (4) B observes only electric field	(2) B observes both electric and magnetic fields
34. A proton, an electron and an a-particle enter at right angles to a uniform field at the same velocity. If R_p R_e, and R_a are the radiii of circular paths of these	(2) $R_a > R_p > R_e$

35. Biot-Savart law indicates that an electron moving with a velocity vec V prod vec B around it such that	(2) vec B is perpendicular to vec V
36. Two identical circular current loops carrying equal currents are placed w at 45° to each other as shown in the figure. The resultant magnetic field  	(1) $\frac{\mu_0 I}{16\sqrt{2}R}\left[(\sqrt{2}+1)\hat{i}+\hat{j}\right]$
37. There are two wires of same material and same length while the diameter of second wire is two times the diameter of the first wire. Then the ratio of extensions produced in the wires by applying same load will be (1) 1:1 (2) 1:2 (3) 2:1 (4) 4:1	(2) 1:2
38. In a capillary tube experiment, a vertical 30 cm long capillary tube is dipped in water, water rises upto a height of 10 cin due to capillarity. If this experiment is conducted in a freely falling water in an elevator, then the length of the water column becomes	(1) 10 cm
39. In thermodynamic processes, which of the following statements is not true? (1) In an isothermal process, the temperature remains constant (2) In an isobaric process, the volume remalos constant (3) In an adiabatic process, the system is insulated from the surroundings (4) In an adiabatic process, PVT a constant	(2) In an isobaric process, the volume remalos constant
40. A horizontal force of 5 N is applied on a stationary body of mss 5 Kg, which on a frictionless. The change in kinetic energy of the body in 10 s is:	(4) 250 J
41. The angular moment of a moving body remains constant, if (1) met external force is applied (2) net pressure is applied (3) net external torqué is applied	(4) net external torque is no

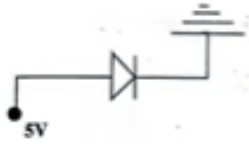
(4) net external torque is no	
42. If the earth were to suddenly contract to half of its present radius, what we of the day?	(1) 6 h
43. Imagine a new planet-having the same density as that of the earth, but it than the earth in sine. If the acceleration due to gravity on the surface of the on the surface of the new planet is g, then	(3) g = 2g
44. Suppose the acceleration due to gravity at the earth's surface is g m/s² moon it is g′ m/s². An M kg passenger goes from the earth to the moon with a constant velocity (Neglect all other objects in the sky). Which cur weight (net gravitational force) as a function of time? 	(1) A
45. The velocity of a particle moving along x-axis is given as x denotes the x-coordinate of the particle in metres. The magnitude of the particle when the velocity of the particle zero is	(3) Zero
46. A man weighs 80 kg. He stands on a weighing scale in a lift which is moving with a uniform acceleration of 6 m/s². What would be his weight in kg? (g = 10 m)	(2) 48 Kg
47. A mass M is hung with a light inextensible string as shown in figure. horizontal string. 	(3) Mg

48. Two bodies with kinetic energies in the ratio of 3:1 are moving with equal The ratio of their masses is	(2) 1:3
49. . Match the physical quantities given in List-I with dimensions expressed length (L), time (T) and electric current (A) given in List-II. List-I / List-II (a) Torque — (i) $[M^{-1}L^{-2}T^{4}A^{2}]$ (b) Gravitational constant — (ii) $[M^{1}L^{2}T^{-1}]$ (c) Capacitance — (iii) $[M^{-1}L^{3}T^{-2}]$ (d) Planck's constant — (iv) $[M^{1}L^{2}T^{-2}]$	(2) a- iv, b-iii, c-i, d-ii
50. 7. From the graph of angle of deviation versus angle of incidence for an equilateral refractive index of material of prism is 	(4) √2
51. . Which of the following circuits is correct for verification of Ohm's law? 	(1) 

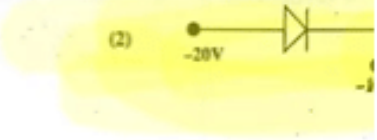
52.

In which of the following figures, diode is reverse biased?

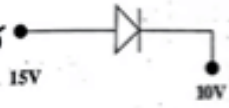
(1)



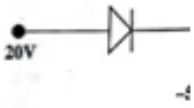
(2)



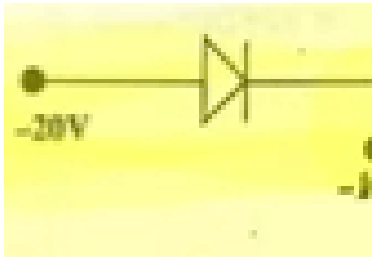
(3)



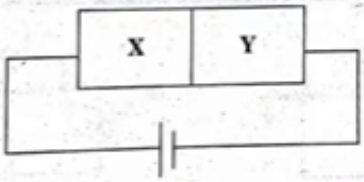
(4)



(2)



53. A wafer of pure germanium crystal has two parts X and Y. The end X is obt with arsenic and Y with indium. It is connected to a battery as shown in the f the following statements is correct?



(1) X is p-type, Y is n-type and the junction is forward biased

(2) X is n-type, Y is p-type and the junction is forward biased

(3) X is p-type, Y is n-type and the junction is reverse biased

(4) X is n-type, Y is p-type and the junction is reverse biased

(4) X is n-type, Y is p-type and the junction is reverse biased