

PYQSide

NEET CURRENT ELECTRICITY — KIRCHHOFF'S RULES — PYQS

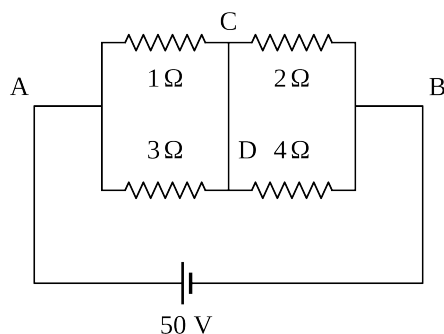
Max. Marks: 36

Questions: 9

Section A (MCQ)

- Q.1** A constant voltage of 50 V is maintained between the points A and B of the circuit shown in the figure. The current through the branch CD of the circuit is:

[NEET (UG) 2025]



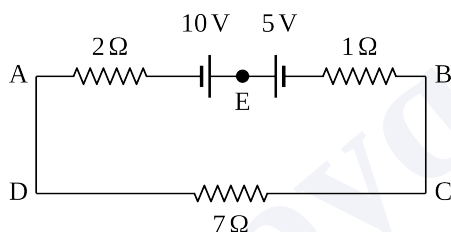
- (1) 2.5 A (2) 3.0 A (3) 1.5 A (4) 2.0 A

Scan or tap for the full solution



- Q.2** The magnitude and direction of the current in the following circuit is :-

[NEET (UG) 2023]



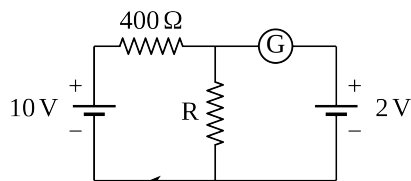
- (1) 0.5 A from A to B through E
(2) $\frac{5}{9}$ A from A to B through E
(3) 1.5 A from B to A through E
(4) 0.2 A from B to A through E

Scan or tap for the full solution



- Q.3** If the galvanometer G does not show any deflection in the circuit shown, the value of R is given by:

[NEET (UG) 2023]



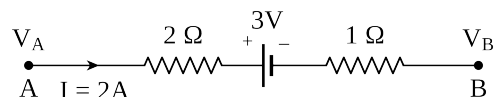
- (1) 50 Ω (2) 100 Ω (3) 400 Ω (4) 200 Ω

Scan or tap for the full solution



- Q.4** The potential difference ($V_A - V_B$) between the points A and B in the given figure is

[NEET 2016 (Phase 2)]



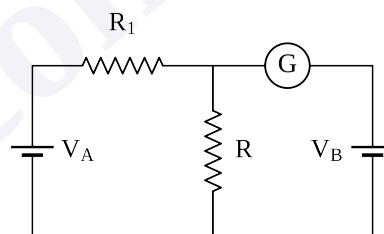
- (1) -3 V (2) +3 V (3) +6 V (4) +9 V

Scan or tap for the full solution



- Q.5** In the circuit shown the cells A and B have negligible resistances. For $V_A = 12$ V, $R_1 = 500$ Ω and $R = 100$ Ω the galvanometer (G) shows no deflection. The value of V_B is

[AIPMT 2012 (Prelims)]



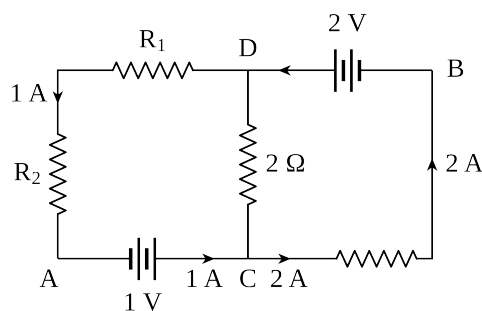
- (1) 4 V (2) 2 V (3) 12 V (4) 6 V

Scan or tap for the full solution



- Q.6** In the circuit shown in the figure, if the potential at point A is taken to be zero, the potential at point B is

[AIPMT 2011 (Mains)]



- (1) +1 V (2) -1 V (3) +2 V (4) -2 V

Scan or tap for the full solution



- Q.7** Consider the following two statements. Which of the following is correct?

- A. Kirchhoff's junction law follows from the conservation of charge.
B. Kirchhoff's loop law follows from the conservation of energy.

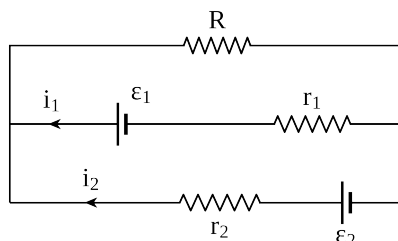
[AIPMT 2010 (Prelims)]

- (1) Both (A) and (B) are wrong
 (2) (A) is correct and (B) is wrong
 (3) (A) is wrong and (B) is correct
 (4) Both (A) and (B) are correct

Scan or tap for the
full solution



Q.8 See the electrical circuit shown in this figure. Which of the following equations is a correct equation for it ?
 [AIPMT 2009]



- (1) $\epsilon_2 - i_2 r_2 - \epsilon_1 - i_1 r_1 = 0$
 (2) $-\epsilon_2 - (i_1 + i_2)R + i_2 r_2 = 0$
 (3) $\epsilon_1 - (i_1 + i_2)R + i_1 r_1 = 0$
 (4) $\epsilon_1 - (i_1 + i_2)R - i_1 r_1 = 0$

Scan or tap for the
full solution



Q.9 Kirchhoff's first and second laws of electrical circuits are consequences of [AIPMT 2006]

- (1) conservation of energy and electric charge respectively
 (2) conservation of energy
 (3) conservation of electric charge and energy respectively
 (4) conservation of electric charge

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9		
Ans.	4	1	2	4	2	1	4	4	3		