

NEET CURRENT ELECTRICITY — KIRCHHOFF'S RULES — PYQS

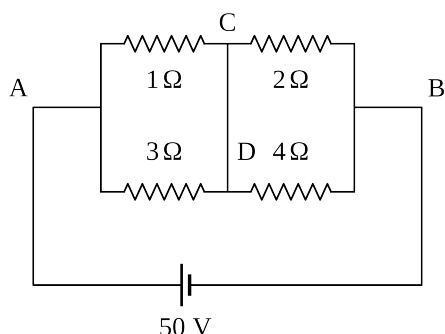
Max. Marks: 36

Questions: 9

Section A (MCQ) — 9 questions

- 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]

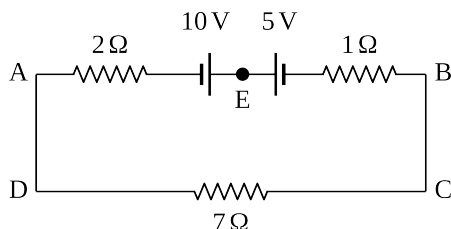


- (1) 2.5 A (2) 3.0 A (3) 1.5 A (4) 2.0 A

Scan or tap for the full solution 

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

[NEET (UG) 2023]

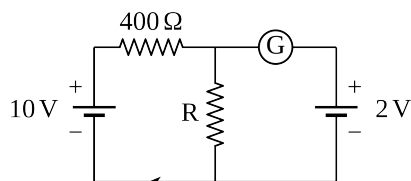


- (1) 0.5 A from A to B through E
 (2) $\frac{5}{9}$ A from A to B through E
 (3) 1.5 A from B to A through E
 (4) 0.2 A from B to A through E

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]

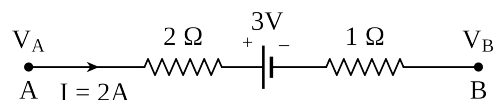


- (1) 50 Ω (2) 100 Ω (3) 400 Ω (4) 200 Ω

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)]

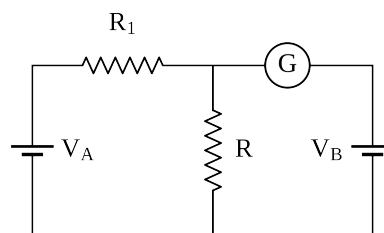


- (1) -3 V (2) +3 V (3) +6 V (4) +9 V

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)]

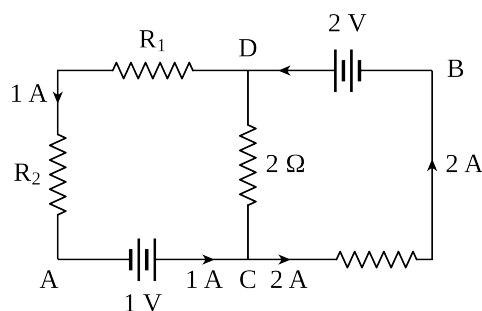


- (1) 4 V (2) 2 V (3) 12 V (4) 6 V

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)]

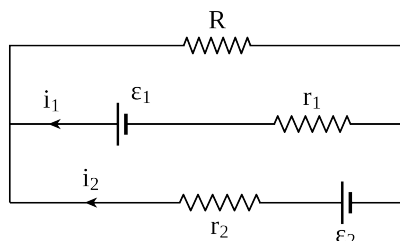
- (1) Both (A) and (B) are wrong
- (2) (A) is correct and (B) is wrong
- (3) (A) is wrong and (B) is correct
- (4) Both (A) and (B) are correct

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		