

JEE MAIN CURRENT ELECTRICITY — CELLS IN SERIES AND PARALLEL — PYQS

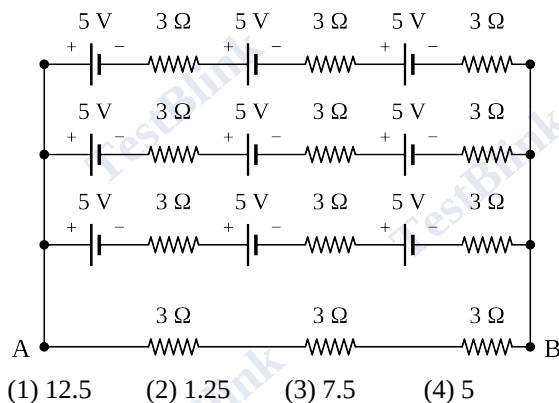
Max. Marks: 16

Questions: 4

Section A (MCQ) — 2 questions

Q.1 Refer to the figure given below, current between terminals A and B is _____ A.

[JEE Main 2026 (Online) 5th April Morning Shift]



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Q.2 For the two cells having same EMF E and internal resistance r , the current passing through the external resistor $6\ \Omega$ is same when both the cells are connected either in parallel or in series. The value of internal resistance r is $\quad\quad\quad \Omega$.

[JEE Main 2026 (Online) 28th January Morning Shift]

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

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Section B (Numerical) — 2 questions

Q.3 Two cells of emfs 1 V and 2 V and internal resistance $2\ \Omega$ and $1\ \Omega$, respectively connected in parallel, gave a current of 1 A through an external resistance. If the polarity of one cell is reversed, then value of current through the external resistance will be $\frac{\alpha}{5}$ A. The value of α is _____.

[JEE Main 2026 (Online) 6th April Evening Shift]

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Q.4 Two cells of emfs 1 V and 2 V and internal resistances $2\ \Omega$ and $1\ \Omega$, respectively, are connected in series with an external resistance of $6\ \Omega$. The total current in the circuit is I_1 . Now the same two cells in parallel configuration are connected to same external resistance. In this case, the total current drawn is I_2 . The value of $\left(\frac{I_1}{I_2}\right)$ is $\frac{x}{3}$. The value of x is _____.

[JEE Main 2025 (Online) 3rd April Evening Shift]

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ANSWER KEY

Section A (MCQ) — 2 questions

Ques.	1	2								
Ans.	2	2								

Section B (Numerical) — 2 questions

Ques.	3	4								
Ans.	3	4								