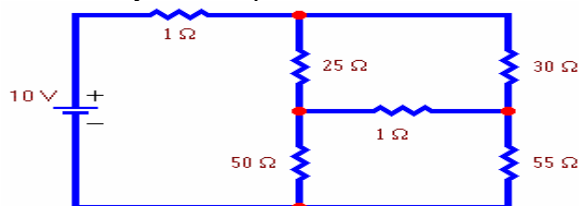


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**Total Questions: 26:**  
**20 MCQS & 6 Subjective Questions:**  
**10 MCQS which I remember are given below:**

**Question No: 1 - Please choose one**

How many KVL equations can be written for the given circuit?



- ▶ 2
- ▶ 4

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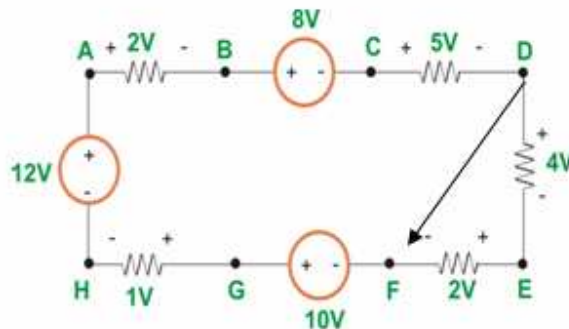
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▶ 3 because 3 meshes or loops are formed and number of loops is equal to number of equations.

▶ 1

Question No: 2 - Please choose one

For the given circuit, voltage  $V_{DF}$  is



▶ 6v  $-2-4=0$   
So,  $V_{df}= 6$  Answer

▶ 2v

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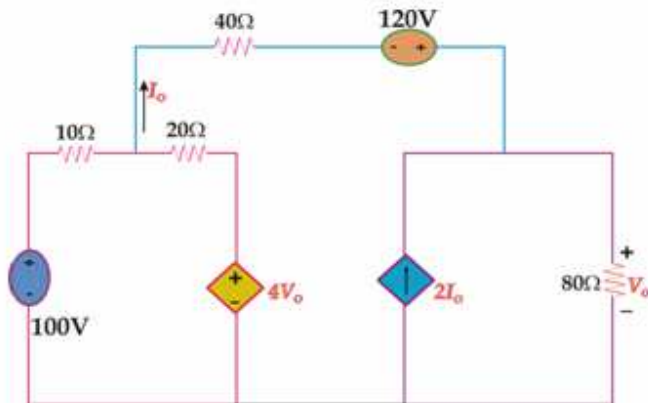
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- ▶ 4v
- ▶ 10v

Question No: 3 – Please choose one

How many sources are dependent sources in given circuit?



- ▶ 3
- ▶ 2

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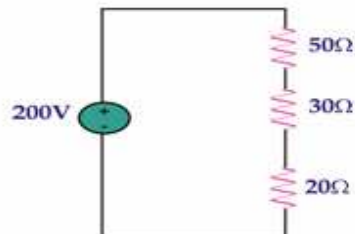
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▶ 4

▶ 1

**Question No: 4 - Please choose one**

Through which resistance most current will flow



▶ 50Ω

▶ 30Ω

▶ 20Ω

▶ same through all resistance Because same current flowing through series combination. Page 32

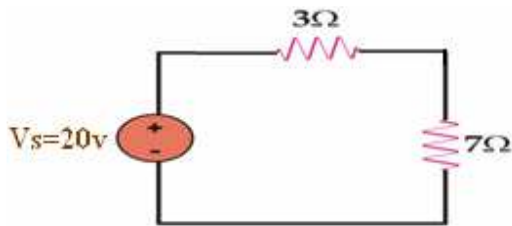
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Question No: 5 - Please choose one

In the figure below Voltage drop across  $7\Omega$  will be



▶ 20v

▶ 14v

$$V = \frac{R}{R_T} \cdot V_S$$

So,

$$V = \frac{7}{10} \cdot 20 = 14\text{V}$$

▶ 6v

▶ 10v

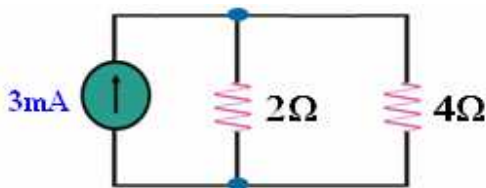
Question No: 6 - Please choose one

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If current flowing through  $4\Omega$  is  $1\text{mA}$ , voltage drop across it will be



▶ 2V

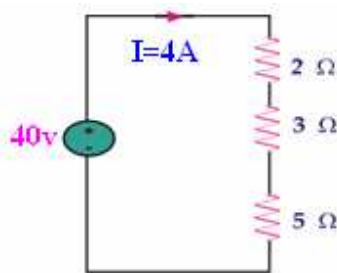
▶ 6V

▶ 4V

▶ 12V  $V=IR \Rightarrow \frac{1}{4}=4$  So,  $V=R/Rt \cdot Vt \Rightarrow 4/1.33 \cdot 4=12\text{v} = \text{Answer.}$

Question No: 7 - Please choose one

For the given figure current flowing through  $5\Omega$  is



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▶ 5A

▶ **4A** same current will flow in series circuit.

▶ 10A

▶ 2A

**Question No: 8 - Please choose one**

---

If an atom has 8 electrons in its outer-most shell then the Valence of this atom is:

▶ 1

▶ **Zero**

▶ 8

▶ 5

**Question No: 9 - Please choose one**

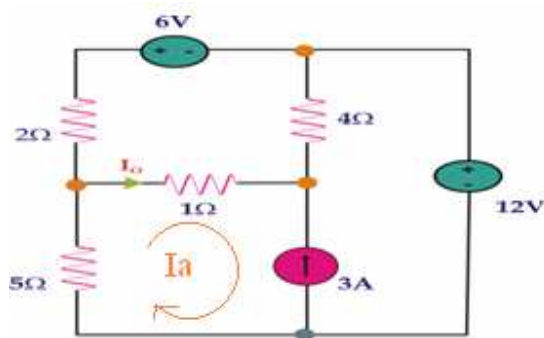
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The value of  $I_a$  for given circuit is



- ▶  $I_a = I_o$
- ▶  $I_a = 3A$
- ▶  $I_a = -3A$  Current is not in same direction with 3A.
- ▶  $I_a = 6v$

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**Question No: 10 (Marks: 1) – Please choose one**

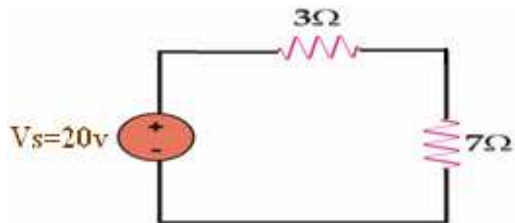
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Using voltage divider in the figure below Voltage drop across  $7\Omega$  will be

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▶ 20v

▶ **14v**  $7/10*20 = 14 = \text{Answer.}$

▶ 6v

▶ 7v

### **Subjective Paper:**

Question: 21: What will be the V(not) of 20 Ohm Resistance?

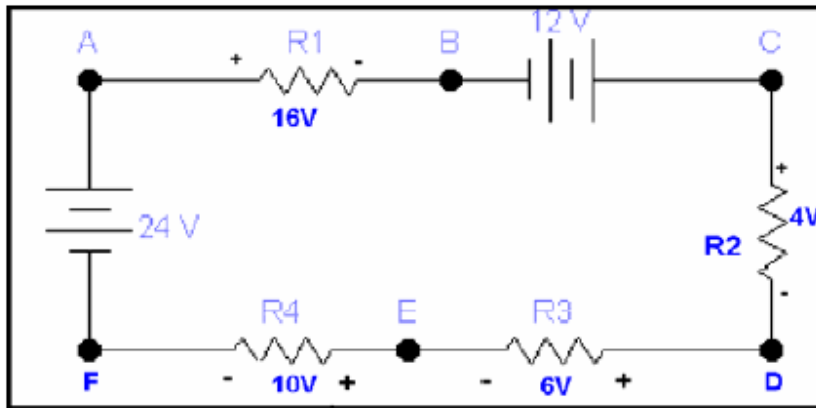
Marks: 2:

Answer:  $I_2 = -4A$ ,  $V=IR$  so,  $-4A*20=-80= \text{Answer.}$

Question: 22: Calculate the voltages  $V_{ae}$ .

Marks: 2:

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**Answer:**

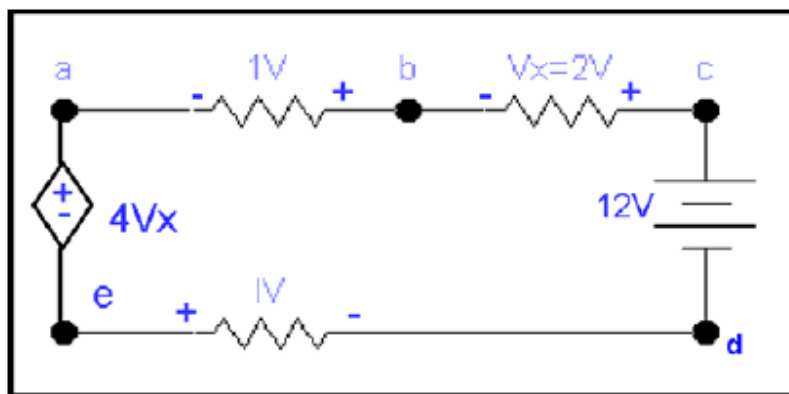
For path AEFA

$$V_{AE} + 10 - 24 = 0 \text{ ----- (A)}$$

$$V_{AE} = 14 \text{ volt}$$

**Question: 23:** Calculate the voltage  $V_{ad}$ .

**Marks: 3:**



**Answer:**

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**For Vad**

**There are two paths in which Vad is the only unknown quantity they are adea and adcba.**  
**For path adea the KVL equation will be**

**Vad**

**$-1V - 4V_x = 0$**

**where  $V_x = 2V$**

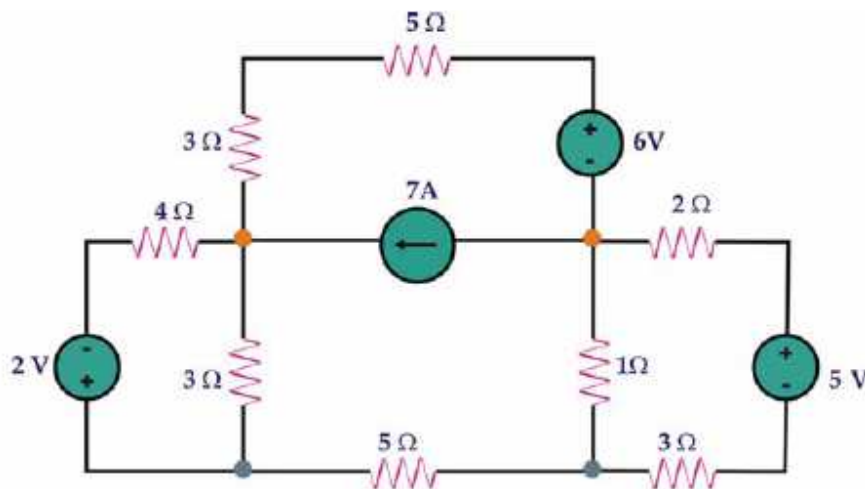
**V**

**ad**

**$-1 - 8 = 0$**

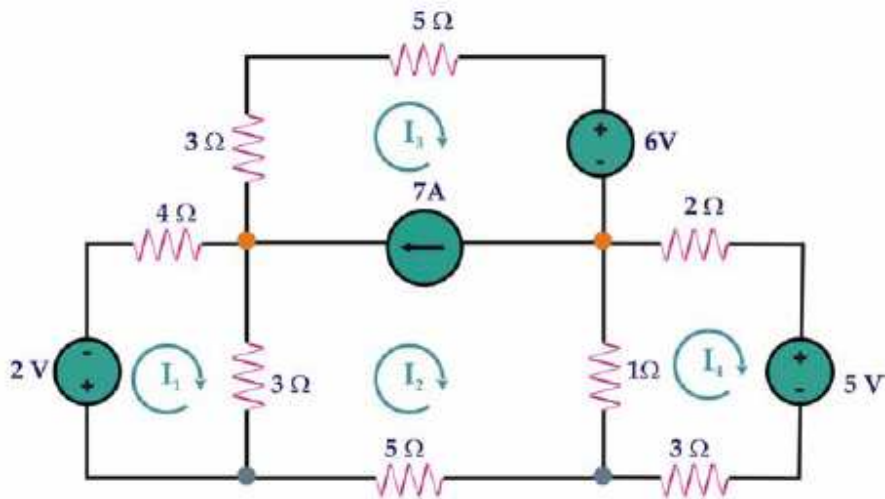
**Vad = 9 volts**

**Question: 26:** Use KVL labels each Mesh, write only Equation for Super Mesh. **Marks: 5:**



**Answer:**

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KVL equation for super mesh

$$1(I_2 - I_4) + 8I_3 + 5I_2 + 6 + 3(I_2 - I_1) = 0$$

Note:

Question 24 and 25 are not remember but they both are from KVL lectures.