

UGC NET Examination Response Paper

Subject: N/A

Test Date: N/A

Document: Official Response Sheet

Test Time: N/A

Q. 1

Question ID: 630680403609

Status: Answered | Chosen Option: A



- ☒
- ☐
- ☐
- ☐
- ☒
- ☐
- ☐
- ☐
- ☐
- ☐
- ☐
- ☒

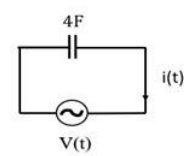
Option 1 ID: 6306801573926	Option 2 ID: 6306801573928	Option 3 ID: 6306801573929	Option 4 ID: 6306801573927
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Q. 4

Question ID: 630680396138

Status: Answered | Chosen Option: B

- ☒
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- ☐
- ☐

Option 1 ID: 6306801544664	Option 2 ID: 6306801544665	Option 3 ID: 6306801544667	Option 4 ID: 6306801544666
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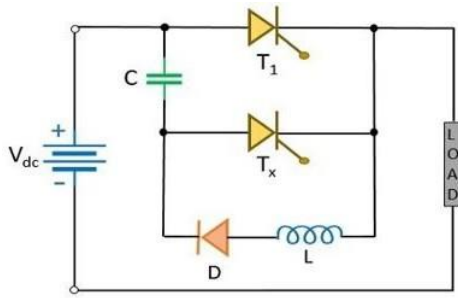
Question ID: 630680358745

Option 4 ID:
6306801396945

Q. 13

Question ID: 630680352185

Status: Answered | Chosen Option: B



- ✗
✔
✗
✗
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Option 1 ID:
6306801370838

Option 2 ID:
6306801370840

Option 3 ID:
6306801370839

Option 4 ID:
6306801370837

Q. 17

Question ID: 630680618154

Status: Answered | Chosen Option: D



$$\frac{I_a}{R_a} = \frac{V}{2} = E_b$$



$$I_a R_a = 2V = \frac{E_b}{2}$$

$$\frac{I_a}{R_a} = 0$$

$$I_a R_a = \frac{V}{2} = E_b$$



Option 1 ID:
6306802418959

Option 2 ID:
6306802418957

Option 3 ID:
6306802418960

Option 4 ID:
6306802418958

Q. 21

Question ID: 630680396193

Status: Answered | Chosen Option: B



The correct expression for the capacitance of a single 3-phase unsymmetrical line with transposed conductors, with r = radius of the conductor and x , y and z as spacing between conductors, is:

$$C = \frac{2 \pi \epsilon_0}{\log_e \frac{\sqrt[3]{xyz}}{r}} \text{ F/m}$$



$$C = \frac{2 \pi \epsilon_0}{\log_e r} \text{ F/m}$$

$$C = \frac{2 \pi \epsilon_0}{\log_e \sqrt[3]{xyz}} \text{ F/m}$$

$$C = \frac{\pi \epsilon_0}{\log_e \frac{\sqrt[3]{xyz}}{r}} \text{ F/m}$$

$$\psi_{\text{int}} = \frac{1}{4} \times 10^{-7} \text{ Wb - turns/m}$$



$$\psi_{\text{int}} = 2 \text{ I} \times 10^{-7} \text{ Wb - turns/m}$$



$$\psi_{\text{int}} = \frac{1}{2} \text{ I} \times 10^{-8} \text{ Wb - turns/m}$$

$$\psi_{\text{int}} = \frac{1}{2} \text{ I} \times 10^{-7} \text{ Wb - turns/m}$$



Option 1 ID:
6306801544886

Option 2 ID:
6306801544887

Option 3 ID:
6306801544885

Option 4 ID:
6306801544884

Q. 25

Question ID: 630680373444

Status: Answered | Chosen Option: D

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- ☐

Option 1 ID: 6306801455050	Option 2 ID: 6306801455047	Option 3 ID: 6306801455049	Option 4 ID: 6306801455048
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Q. 30

Question ID: 630680328968

Status: Answered | Chosen Option: A

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- ☒
- ☐
- ☐
- ☐
- ☐
- ☒

Option 1 ID: 6306801279828	Option 2 ID: 6306801279827	Option 3 ID: 6306801279825	Option 4 ID: 6306801279826
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Q. 35

Question ID: 630680396175

Status: Answered | Chosen Option: D



Calculate the output DC voltage for a single-phase semi converter for $v_s = 400 \sin \omega t$ and whose firing angle α is 90 degrees.



Option 1 ID:
6306801544815

Option 2 ID:
6306801544814

Option 3 ID:
6306801544813

Option 4 ID:
6306801544812

Q. 39

Question ID: 630680210766

Status: Answered | Chosen Option: B

☐ 9600 $\sqrt{3}$ W☐ 6400 W☐ 1000 W☐ 9600 W

Option 1 ID:
630680817225

Option 2 ID:
630680817223

Option 3 ID:
630680817226

Option 4 ID:
630680817224

Q. 43

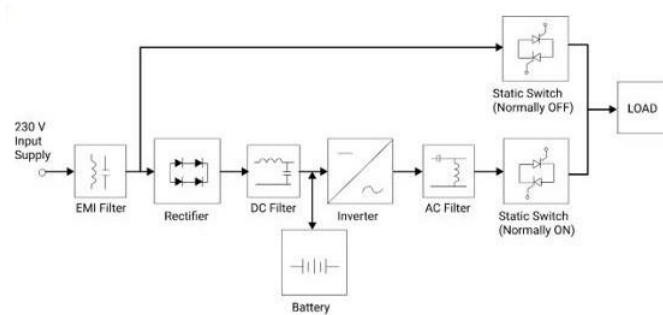
Question ID: 630680338929

Status: Answered | Chosen Option: B

50 A

 $25\sqrt{2}$ A $50\sqrt{2}$ A

25 A



Option 1 ID:
6306801318305

Option 2 ID:
6306801318307

Option 3 ID:
6306801318308

Option 4 ID:
6306801318306

Question ID: 630680405720

Option 4 ID:
6306801582025

Q. 52

Question ID: 630680334718

Status: Answered | Chosen Option: A

A resistance of $12\ \Omega$, an inductance of $(\frac{1}{10\pi})$ H, and a capacitance of $(\frac{1}{100\pi})$ F are connected in series. The impedance of the circuit when connected across a supply of 230 V, 50 Hz is:



Option 1 ID:
6306801302129

Option 2 ID:
6306801302130

Option 3 ID:
6306801302131

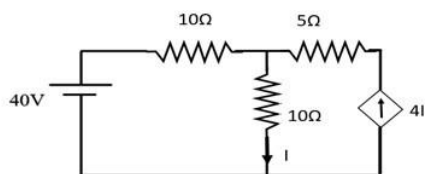
Option 4 ID:
6306801302132

Q. 57

Question ID: 630680339821

Status: Answered | Chosen Option: C

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✗
✗
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Option 1 ID:
6306801321805

Option 2 ID:
6306801321807

Option 3 ID:
6306801321808

Option 4 ID:
6306801321806

Q. 61

Question ID: 630680503344

Status: Answered | Chosen Option: C

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Option 1 ID: 6306801966958	Option 2 ID: 6306801966959	Option 3 ID: 6306801966957	Option 4 ID: 6306801966960
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Q. 66

Question ID: 630680373454

Status: Answered | Chosen Option: D

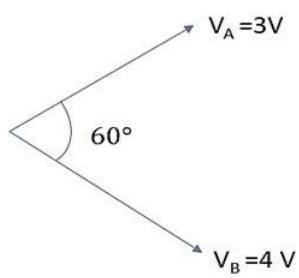
- ☐
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Option 1 ID: 6306801455088	Option 2 ID: 6306801455087	Option 3 ID: 6306801455090	Option 4 ID: 6306801455089
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Q. 71

Question ID: 630680352127

Status: Answered | Chosen Option: A



7 V



5 V

 $\sqrt{13}$ V $\sqrt{37}$ V

Option 1 ID:
6306801370606

Option 2 ID:
6306801370607

Option 3 ID:
6306801370605

Option 4 ID:
6306801370608

Q. 75

Question ID: 630680612221

Status: Answered | Chosen Option: B

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- ☒
- ☐

Option 1 ID: 6306801544579	Option 2 ID: 6306801544576	Option 3 ID: 6306801544577	Option 4 ID: 6306801544578
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Q. 80

Question ID: 630680796434

Status: Answered | Chosen Option: B



Option 1 ID:
6306803120725

Option 2 ID:
6306803120724

Option 3 ID:
6306803120726

Option 4 ID:
6306803120727

Q. 85

Question ID: 6306801001559

Status: Answered | Chosen Option: A

What is the value of $(x^2 + y^2 + z^2)$ if x , y , and z satisfy the following linear equations?

$$6x - y + 4z = 3$$

$$x + 4y + 2z = -2$$

$$5x + 4z = 0$$



Option 1 ID:
6306803930341

Option 2 ID:
6306803930342

Option 3 ID:
6306803930343

Option 4 ID:
6306803930344

Q. 89

Question ID: 63068070753

Status: Answered | Chosen Option: D



Option 1 ID:
630680273634

Option 2 ID:
630680273637

Option 3 ID:
630680273635

Option 4 ID:
630680273636

Question ID: 630680945829

Option 4 ID:
6306803708073

Q. 99

Question ID: 630680172224

Status: Answered | Chosen Option: B

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Option 1 ID: 630680667335	Option 2 ID: 630680667332	Option 3 ID: 630680667333	Option 4 ID: 630680667334
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