

Time: 3 Hours

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the Question must be answered at one place

UNIT-I

- | | Marks | CO | BTL |
|--|-------|----|-----|
| 1. a) Discuss the irony in Mark Twain's "Luck". How does the story challenge society's understanding of success? | 8 | 1 | K2 |
| b) Read the passage and answer the following questions.
Digital payments in India continue to grow rapidly. The Unified Payments Interface (UPI) processed billions of transactions in recent months, making it one of the most widely used payment systems in the world. People use UPI for shopping, bill payments, money transfers, and other daily transactions.

The increasing use of smartphones, internet connectivity, and digital banking services has encouraged more people to adopt digital payments. Financial experts believe that digital transactions will continue to expand in the coming years.

i) What three factors have contributed to the growth of digital payments in India?
ii) What evidence shows that UPI is widely used?
iii) Give two examples of how digital payments are used in daily life. | 6 | 1 | K2 |

(OR)

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|--|---|---|----|
| 2. a) Do you think the Reverend's confession changes the reader's perception of the hero in "Luck"? Explain. | 8 | 1 | K2 |
| b) Do as Directed.

i) Fill in the blanks with the correct form of the verb given in brackets.
a) By this time tomorrow, we _____ the assignment. (finish)
b) She usually _____ her emails before breakfast. (check)
ii) Write a synonym of the word – ancient.
iii) Write the antonym of the word – generous.
iv) Fill in the blanks with suitable one-word substitutes.
a) A person who studies the stars and planets is an _____.
b) A place where aircraft take off and land is an _____. | 6 | 1 | K3 |

UNIT-II

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|---|---|---|----|
| 3. a) Explain the significance of the concluding line, "If Winter comes, can Spring be far behind?" | 8 | 2 | K2 |
| b) Write a well-structured paragraph of about 120–150 words on any ONE of the following topics.

a) The Importance of Mental Well-being among Students
b) Social Media: A Tool for Learning and Networking | 6 | 2 | K2 |
| (OR) | | | |
| 4. a) Why the West Wind is considered a symbol of transformation in the poem? Explain. | 8 | 2 | K2 |
| b) Distinguish between the following pairs of words by giving their meanings. Then write one meaningful sentence using each word.

i) Site – Sight ii) Piece – Peace iii) Whole – Hole | 6 | 2 | K2 |

UNIT-III

5. a) Explain the relationship between knowledge, technology and national prosperity according to Abdul Kalam. 8 3 K2
b) Write an essay of about 300 words on: "The Role of Technology in Education." 6 3 K2

(OR)

6. a) Discuss the role of innovation and creativity in building a knowledge society. 8 3 K2
b) Do as Directed. (4+2=6M) 6 3 K3
i) Fill in the blanks using comparative adjectives of the words given in the brackets:
a) The new policy is _____ (effective) than the previous one in improving results.
b) Of all the candidates, she is the _____ (suitable) for the position.
c) This task is not as _____ (easy) as it initially appeared.
d) The weather today is the _____ (bad) we have experienced this month.
ii) Fill in the blanks with suitable words from the brackets:
e) The team showed _____ progress after the training session. (significant / heavy / strong)
f) He gave a _____ explanation that cleared all doubts instantly. (clear / bright / loud)

UNIT-IV

7. a) How does "Like a Tree, Unbowed" inspire individuals to overcome challenges? 8 4 K2
b) Draft an official letter to the District Collector requesting permission to conduct a flash mob at the city centre to promote financial literacy among the public. 6 4 K2

(OR)

8. a) Examine Wangari Maathai's contribution to environmental conservation and social justice. 8 4 K2
b) Write an email to the Placement Officer requesting registration for campus recruitment training. 6 4 K2

UNIT-V

9. a) Explain Swami Vivekananda's concept of selfless work in "The Secret of Work". 8 5 K2
b) Paraphrase the following sentences: 6 5 K2
i) AI assists doctors in diagnosing diseases more accurately and quickly.
ii) Transportation systems are becoming more efficient through AI-powered traffic management.
iii) Experts emphasize the need for responsible development and regulation of AI technologies.

(OR)

10. a) Discuss the relevance of "The Secret of Work" in student life. Give examples. 8 5 K2
b) Correct the errors and rewrite the following sentences. 6 5 K2
a) The committee have decided the result.
b) Hardly I reached home when it started raining.
c) She don't agree with the proposal.
d) Neither of the options are suitable.
e) If I was you, I would accept the offer.
f) The data is showing an increase in sales.

Answer ONE Question from each Unit

All Questions Carry Equal Marks

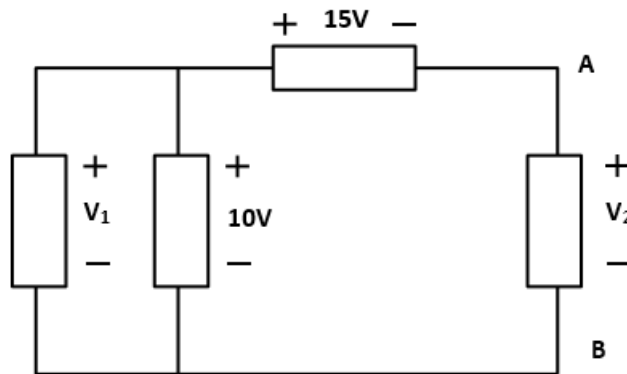
All parts of the Question must be answered at one place

UNIT-I

- | | | Marks | CO | BTL |
|----|---|-------|-----|-----|
| 1. | a) Derive an expression for energy stored in inductor and write its properties. | 7M | CO1 | L3 |
| | b) Derive the expression for total resistance of series and parallel circuits. | 7M | CO1 | L3 |

(OR)

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|----|---|----|-----|----|
| 2. | a) Applying Kirchhoff's Voltage Law, find V_1 and V_2 | 7M | CO1 | L3 |
|----|---|----|-----|----|



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|----|--|----|-----|----|
| b) | Explain the faraday's laws of electromagnetic induction. | 7M | CO1 | L2 |
|----|--|----|-----|----|

UNIT-II

- | | | | | |
|----|--|----|-----|----|
| 3. | a) Deduce average and RMS values of sinewave $V = V_m \sin \omega t$. | 7M | CO2 | L3 |
| | b) Derive the relation between current and voltage for pure resistor. Draw its phasor diagram. | 7M | CO2 | L3 |

(OR)

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|----|---|----|-----|----|
| 4. | a) Explain series R-L circuit also draw its phasor diagram. | 7M | CO2 | L2 |
| | b) Define the active power, reactive power, apparent power & power factor of the circuit. | 7M | CO2 | L3 |

UNIT-III

5. a) Explain the construction of DC machine with neat sketch. 7M CO3 L2
b) Derive the E.M.F equation of a DC generator. 7M CO3 L3

(OR)

6. a) Derive the Torque equation of DC motor. 7M CO3 L3
b) With neat sketch explain the working of 3-point starter. 7M CO3 L2

UNIT-IV

7. a) Explain the formation of PN Junction diode. 7M CO4 L2
b) Describe the V-I Characteristics of PN Junction diode. 7M CO4 L2

(OR)

8. a) Describe the working of Zener diode as a Voltage Regulator. 7M CO4 L2
b) Explain the working of centre tapped full wave Rectifier with relevant waveforms. 7M CO4 L2

UNIT-V

9. a) Explain the working of BJT with neat sketch. 7M CO5 L2
b) Draw and explain the input characteristics of BJT in common base configuration. 7M CO5 L2

(OR)

10. a) Draw and explain the output characteristics of BJT in common base configuration. 7M CO5 L2
b) Deduce the relationship between α , β and γ . 7M CO5 L2