

2025

Electronics (Vocational)

Total marks: 50

Time: 2 hours

General instructions:

- i) *Approximately 10 minutes is allotted to read the question paper and revise the answers.*
- ii) *All questions are compulsory.*
- iii) *The question paper consists of 21 questions.*
- iv) *Marks allocated to every question are indicated against it.*

N.B: *Check that all pages of the question paper are complete as indicated on the top left side.*

1. Choose the correct answer from the given alternatives: 10x1=10

- i. Things that divert one's attention from the main task or focus is
 - (a) Recipient
 - (b) Prejudgements
 - (c) Distractions
 - (d) Beliefs
- ii. Episodic series in digital format that can be easily downloaded from the internet
 - (a) Whats app
 - (b) Amazon
 - (c) Facebook
 - (d) Podcasts
- iii. 'Save as' command is a part of
 - (a) File menu
 - (b) Edit menu
 - (c) Format menu
 - (d) Insert menu
- iv. Business that has just begun to operate
 - (a) Investments
 - (b) Innovation
 - (c) Service
 - (d) Startups
- v. Which of the following is used to step up or step down the voltage?
 - (a) Generator
 - (b) Starter
 - (c) Motor
 - (d) Transformer
- vi. Which of the following is not a busway system component?
 - (a) Slip ring
 - (b) Joint stack
 - (c) Elbows
 - (d) Off sets
- vii. A load centre is also called
 - (a) Logical unit
 - (b) Processing unit
 - (c) Control unit
 - (d) Panel unit
- viii. A conductor that serves as a common connection for two or more circuits is
 - (a) Busway
 - (b) Trim
 - (c) MCB
 - (d) Busbar
- ix. What is the output of full wave rectifier?
 - (a) DC
 - (b) Pulsating DC
 - (c) AC
 - (d) Square wave
- x. Squirrel cage is a type of
 - (a) Induction motor
 - (b) Synchronous motor
 - (c) Brushed motor
 - (d) Brushless DC motor

Answer the following questions in one word or one sentence:

- 2. What is active listening? 1
- 3. What are organisational skills? 1
- 4. What is service entrance? 1
- 5. What is the working principle of a fuse based on? 1
- 6. What is load centre? 1
- 7. What is soft starter? 1
- 8. Define programmable logic controller. 1
- 9. List any two examples of electrical hazards. 1

Answer the following questions in 20-50 words:

- 10. List any two ways to manage stress. 2
- 11. Mention any two importances of green jobs. 2
- 12. Differentiate between ground fault (GFCI) and arc fault circuit interrupter (AFCI). 2
- 13. What are the roles of tees and offsets in a busway system? 2
- 14. Differentiate between AC fuse and DC fuse. 2
- 15. Write two uses of electrical drives. 2
- 16. Write a short note on main breaker load centre. 2
- 17. What is meant by ‘testing’ in a control panel? Name one type of testing performed in a control panel system. 2

Answer the following questions in 60-100 words:

- 18. a. Explain briefly (i) Circuit breaker (ii) Surge arrester. 2+2=4

Or

- b. What is fire extinguisher? Write three procedural steps to operate fire extinguisher. (1+3=4)

- 19. Write four differences between earthing and grounding. 4

- 20. What is a switch board? Explain briefly any three components of a switch board. 1+3=4

- 21. a. Explain briefly the working of an alternator or AC generator. 4

Or

- b. Explain the working principle of direct online starter.
