

**Skill Development and Entrepreneurship Department**  
**Directorate of Vocational Education and Training**  
**Directorate of Skill Development, Employment and Entrepreneurship**  
**Question Paper Group Name: ELECTRICAL**  
**Question Paper Post Names: Craft Instructor – Electrician, Wiremen**

Duration: 60 Minutes

Total Questions: 40

**INSTRUCTIONS**

1. This Question Paper Booklet contents 40 mandatory questions. Candidate should check the Question Paper Booklet and ensure that it contents all pages and questions before starting to answer. If candidate finds any problem pertaining to printing/ binding/ incomplete pages etc, candidate should immediately get the Question Paper replaced from the Invigilator.
2. Candidate has to write his/ her seat number in this block. 

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3. The Question Booklet Number as printed above should be mentioned at the appropriate place on the OMR Answer Sheet.
4. All the Questions are provided with 4 options as 1, 2, 3 and 4. Candidate should select the most correct Option and mention the Option Number on the OMR Answer Sheet in front of the respective Question Number by **fully shading the Option Number with BLACK INK BALL POINT PEN Only.**
5. All Questions carry equal marks i.e. 1 Question has a weightage of 1 marks. Candidate should mind the available time for the examination and solve the questions accordingly.
6. The option shaded once on the OMR Answer Sheet should not be roughed or in any other way changed. Thus candidate should take utmost care while marking their options on OMR Answer Sheet. Such changes if any or any attempt to rough/ change options shall not be checked by the authorities.
7. Marks shall be awarded to the correct answers only during the evaluation of the OMR Answer Sheet. No marks shall be deducted for registering wrong answers (shading wrong option) or not attempting questions. Thus there is **NO NEGATIVE MARKING SYSTEM.**
8. All the rough work has to be done on the sheet provided for Rough Work in the Question Booklet only. Writing anything on the Question Paper Booklet, OMR Answer Sheet or any other Paper Sheet shall be treated as an unfair means and entitle for action under "Prohibition of Unfair Practices during examination Ordinance – 1982".
9. Method of Shading the Correct Option on the OMR Answer Sheet:

Q.No. 25.How many Centimeters make 1 Meter?

(1) 10

(2) 100

(3) 1000

(4) 10000

The Correct Option for this Question is (1) and hence the (2) option on the OMR Answer Sheet in front of Question Number 25 has to be shaded as following



Correct Method of Shading



Wrong Method of Shading

**USE ONLY BLACK INK BALL POINT PEN FOR SHADING****IMPORTANT**

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**THIS QUESTION PAPER BOOKLET AND PART – 1 OF OMR ANSWER SHEET HAVE TO BE SUBMITTED TO THE INVIGILATOR AFTER THE EXAMINATION.**

1. A fractional horse power single phase motor is to be carried from its foundation to the work bench for repairs. The first step you will do is

1. Remove foundation bolt
2. Remove terminal connections
3. Remove fuses
4. Switch off the motor

2. If you observe a person receiving an electric shock, first step you will ensure to

1. Switch off the supply that is far away
2. Move the person with bare hands
3. Push or pull the victim away from the point of conduct of live equipment without causing serious injury to the victim using rubber gloves.
4. Loosen his cloths.

3. If a person after electrocution has received burn & injury in the chest, then following method of resuscitation is employed.

1. Mouth to mouth method of resuscitation
2. Schafer's method
3. Nelson's Method
4. Schafer's & Nelson's method simultaneously.

4. The symbol for indicating the DC type of measuring instrument is

1. 
2. 
3. 
4. 

5. colour of wire used to indicate positive terminal of DC voltage supply is

1. Black
2. Blue
3. Red
4. Green

6. How much current will flow, through a 230v, 200w lamp, when connected to 230 v supply?

1. 0.68 A
2. 0.86 A
3. 0.34 A
4. 0.43A

7. Three resistances  $R_1$ ,  $R_2$  &  $R_3$  of values  $10 \Omega$ ,  $20 \Omega$  and  $30 \Omega$  respectively are connected in series.  $I_1$ ,  $I_2$ ,  $I_3$  are the respective currents flowing through these resistances.  $I$  is the total current of this combination. The relationship between  $I$ ,  $I_1$ ,  $I_2$  &  $I_3$  is

1.  $I = I_1 + I_2 + I_3$

2.  $I = I_1 - I_2 - I_3$

3.  $I = I_1 + I_2 - I_3$

4.  $I = I_1 - I_2 + I_3$

8. Three resistances of value  $50 \Omega$ ,  $100 \Omega$  and  $20 \Omega$  are connected in parallel. The effective value of the resistance of this circuit is \_\_\_\_

1. 2.58

2. 2.85

3. 35

4. 53

9. Which of the following material will have highest resistance?

1. Steel

2. Nichrome

3. Copper

4. Aluminum

10. The magnetic lines in a bar magnet originate from \_\_\_\_

1. North pole & enter to south pole

2. South Pole & enter to North Pole

3. Center & enter to North Pole.

4. Center & enter to South Pole

11. In case of electrolyte preparation for secondary battery, acid is added when specific gravity of electrolyte is below \_\_\_\_

1. 2150

2. 2510

3. 1250

4. 1520

12. The flatness of the surface is checked by

1. File

2. Try square

3. Center Punch

4. Odd leg caliper

13. For cutting the soft material such as bronze, brass, soft steel, hacksaw blade of \_\_\_\_ pitch is used

1. 1.8 mm

2. 1.4 mm

3. 0.8 mm

4. Any of the above

14. The tool used to mark a parallel line with reference to a datum edge is

- 1. die
- 2. Chisel
- 3. Odd leg caliper
- 4. Drill

15. Insulation resistance of dried winding should be

- 1. More than 100  $\Omega$  and less than 200  $\Omega$
- 2. More than 500  $\Omega$  and less than 600  $\Omega$
- 3. Less than 100  $\Omega$
- 4. More than 1 M  $\Omega$

16. While checking the choke using series 1 amp method, the bulb should \_\_\_\_\_

- 1. Glow dim
- 2. Glow bright
- 3. Not glow
- 4. Flicker

17. The direction of rotation of ceiling fan should be \_\_\_\_\_ direction looking from the ground

- 1. Initially clockwise, then anti clockwise
- 2. Initially anticlockwise, then clockwise
- 3. Clockwise
- 4. Anticlockwise

18. For skinning the cable insulation, the Proper tool to be used is

- 1. Plier
- 2. Cutter
- 3. Scissor
- 4. Stripper

19. For wiring up a 1.5 ton Air conditioner, the socket required shall have current rating of \_\_\_\_\_

- 1. 1 A
- 2. 2 A
- 3. 16 A
- 4. 5 A

20. The equipment used to measure insulation resistance of a motor is \_\_\_\_\_

- 1. Megger
- 2. Voltmeter
- 3. Ammeter
- 4. Wattmeter

21. The meter used to measure the speed of a motor is called as \_\_\_\_\_

- |                  |               |
|------------------|---------------|
| 1. Potentiometer | 2. Tachometer |
| 3. Ammeter       | 4. Voltmeter  |

22. How we can change the direction of rotation of a DC Motor?

1. By changing either armature or field terminals
2. By changing both armature & field terminals
3. By shorting armature & field terminals
4. By opening field terminals

23. The purpose of no volt coil in four point starter is to \_\_\_\_\_

1. Release handles of starter when there is no supply.
2. Speed up the motor
3. Stop the motor
4. Plug the motor

24. The material of brushes used in DC generator is \_\_\_\_\_

- |           |             |
|-----------|-------------|
| 1. Copper | 2. Aluminum |
| 3. Carbon | 4. Silver   |

25. A series motor is always started on

- |              |                   |
|--------------|-------------------|
| 1. Load      | 2. No load        |
| 3. Less Load | 4. Very less load |

26. Which of the following is not required in over hauling of the DC Motor?

- |                  |                    |
|------------------|--------------------|
| 1. Pulley puller | 2. Bearing puller  |
| 3. Center Punch  | 4. Frequency meter |

27. In case of DC Motor, the overload relay setting should be \_\_\_\_\_ times, the rated current of the motor

- |        |        |
|--------|--------|
| 1. 0.2 | 2. 5.1 |
| 3. 1.5 | 4. 2.0 |

28. We can change the direction of rotation of 3 phase squirrel cage induction motor by

1. Interchanging all the phases
2. Interchanging any two phases
3. By shorting R & Y terminal
4. By shorting Y & B terminal

29. The overload relay setting i.e. overload current should be about \_\_\_\_\_times the HP rating of the Motor.

1. 1.1
2. 1.2
3. 1.9
4. 1.5

30. While running in delta mode, each winding of 3 phase squirrel case induction motor receives \_\_\_supply. If the operation voltage is 440 volts

1.  $440/\sqrt{3}$
2.  $230/\sqrt{3}$
3. 440 V
4. 230 V

31. While starting the slip ring induction motor on rotor resistance starter, following statement is true

1. Resistance is changed from low to high value
2. Resistance is changed from high to low value
3. Resistance is changed from medium to low value
4. Resistance is changed from medium to high value.

32. The resistance of starting winding in case of single phase induction motor is \_\_\_\_\_ as that of running winding.

1. Low
2. High
3. Very Low
4. Same

33. The function of centrifugal switch in case of single phase induction motor is to

1. Disconnect running winding
2. Disconnect starting winding
3. Disconnect both windings
4. To short starting & running winding

34. The direction of rotation of single phase induction motor can be changed by

1. Interchanging starting/running winding terminal
2. Opening starting winding
3. Interchanging both windings simultaneously
4. Interchanging the supply connections.

35. If input AC voltage is 24V, the output DC of the half wave rectifier will be \_\_\_\_ V

- |           |         |
|-----------|---------|
| 1. 10.8 V | 2. 18 V |
| 3. 24 V   | 4. 12 V |

36. \_\_\_\_ diode is used as voltage regulator

- |                   |          |
|-------------------|----------|
| 1. Photo          | 2. Zener |
| 3. Light Emitting | 4. Power |

37. Following device can be used as series voltage regulator

- |          |               |
|----------|---------------|
| 1. Diode | 2. Transistor |
| 3. Triac | 4. Dial       |

38. The function of heat sink in power supply is to \_\_\_\_\_

- |                                     |                   |
|-------------------------------------|-------------------|
| 1. Dissipate heat                   | 2. Regulate power |
| 3. Regulate harmonics in the supply | 4. Improve P.F.   |

39. The efficiency of full wave rectifier is \_\_\_\_\_ than half wave rectifier.

- |             |               |
|-------------|---------------|
| 1. More     | 2. Lower      |
| 3. Very Low | 4. Always low |

40. The filters are used in conjunction with rectifier circuit because they \_\_\_\_\_

- |                     |                                     |
|---------------------|-------------------------------------|
| 1. Reduce voltage   | 2. Reduce current                   |
| 3. Increase voltage | 4. Remove ripples from the voltage. |

SPACE FOR ROUGH WORK

EAL



AL