

Skill Development and Entrepreneurship Department
Directorate of Vocational Education and Training
Directorate of Skill Development, Employment and Entrepreneurship
Question Paper Group Name: Mechanical-5

**Question Paper Post Names: Craft Instructor-Mechanic Motor Vehicle, Craft Instructor-Mechanic Tractor,
 Craft Instructor-Mechanic Agricultural Machinery**

Duration: 60 Minutes

Total Question: 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 (2) 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

This Question Paper Booklet and OMR Answer Sheet is the property of the Department and is being handed over to the candidate for examination purpose only in the examination hall.

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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. _____ are used to cut sheet metal up to 1.2 mm thickness.

- | | |
|-------------------------|-----------------|
| 1. Mallets | 2. Snips |
| 3. Scratch awl & criber | 4. Steel square |

2. The portion between the point & shank is called _____ of drill.

- | | |
|-----------|----------|
| 1. Flutes | 2. Body |
| 3. Tang | 4. Point |

3. Which of the following tap is used to finish the threads of a blind hole to correct depth.

- | | |
|-----------------|---------------------------------------|
| 1. Taper tap | 2. Bottoming tap |
| 3. Tap wrenches | 4. Double ended adjustable tap wrench |

4. The principle part of a _____ arc frame, anvil, spindle & the thread.

- | | |
|---------------------------|----------------------|
| 1. Vernier caliper | 2. Metric micrometer |
| 3. Circle cutting machine | 4. Bossing mallet |

5. Which file have deeper cutting action & are useful for filling soft materials?

- | | |
|--------------------|--------------------|
| 1. Single cut file | 2. Double cut file |
| 3. Curved cut file | 4. Rasp cut file |

6. _____ washer do not have chamfers & commonly used in structural fabrication work.

- | | |
|------------------------|-------------------|
| 1. Spring washer | 2. Tab washer |
| 3. Toothed lock washer | 4. Punched washer |

7. The wheel assembly consist of _____ .

- | | |
|--------------------------|-----------------|
| 1. Only hub | 2. Only tyre |
| 3. Hub, rim, tyre & tube | 4. None of this |

8. The main function of _____ is to convert the rotary motion of the steering wheel into regular motion of the front wheel.

- | | |
|----------------------|----------------------|
| 1. Suspension system | 2. Breaking system |
| 3. Steering system | 4. Electrical system |

9. Which of the following is a type of suspension?

- | | |
|---------------------------|-----------------|
| 1. Wish bone type | 2. Torsion type |
| 3. Mc. pherson strut type | 4. All of these |

10. The main function of the _____ is to support all the units of vehicle & to take on the load of goods, passengers etc.

- | | |
|------------------|-----------------|
| 1. Chassis frame | 2. Car body |
| 3. Engine | 4. Differential |

11. The function of master cylinder is to _____.

- | | |
|----------------------------|------------------------------|
| 1. Store the air | 2. Pressurize t & supply air |
| 3. Pressurize & supply oil | 4. Regulate oil pressure |

12. The main function of pump is to _____.

- | | |
|-------------------------|--------------------------|
| 1. Pressurize the oil | 2. Pressurize the air |
| 3. Control the pressure | 4. Regulate the pressure |

13. Which valve is used to control the speed of actuator?

- | | |
|----------------------------|---------------------------|
| 1. Direction control valve | 2. Pressure control valve |
| 3. F.R.L. | 4. Flow control valve |

14. In _____ cooling system no pump is used for water circulation.

- | | |
|-------------------------|----------------------------|
| 1. Thermo-siphon system | 2. Pump circulation system |
| 3. Forced feed system | 4. None of these |

15. A _____ has paste or gel electrolyte.

- | | |
|---------------|-----------------|
| 1. Wet cell | 2. Dry cell |
| 3. Hydrometer | 4. All of these |

16. The main function of a lubricator is to _____.

- | | |
|---|--|
| 1. Minimize the friction between two moving parts | 2. Absorb the heat from the moving parts |
| 3. Minimize wear & tear | 4. All of these |

17. Four types of cylinder heads are used in automobile engine are

- | | |
|---|---|
| 1. 'L' head, 'I' head, 'F' head, 'T' head | 2. 'L' head, 'C' head, 'F' head, 'T' head |
| 3. 'L' head, 'I' head, 'G' head, 'T' head | 4. 'L' head, 'I' head, 'F' head, 'N' head |

18. In a spark ignition engine _____ is used as fuel.

- | | |
|---------------|------------------|
| 1. Diesel | 2. Petrol |
| 3. Bio diesel | 4. None of these |

19. The _____ is used to connect & disconnect transmission of power from engine flywheel to the gear box.

- | | |
|--------------------|-------------------|
| 1. Clutch | 2. Differential |
| 3. Steering system | 4. Steering wheel |

20. Front wheel alignment depends upon

- | | |
|---------------------|--|
| 1. Camber & castor | 2. King pin indination |
| 3. Toe in & toe out | 4. Castor, camber, king pin indination, Toe in & Toe out |

21. In this type two separate discs are clamped together & flange of discs provide seating surface for the tyre & tube.

- | | |
|----------------|---------------------|
| 1. Disc wheel | 2. Wire wheel |
| 3. Split wheel | 4. Heavy duty wheel |

22. The minimum distance between rivets should be _____ times the diameter of the rivet.

- 1. One time
- 2. Two times
- 3. Three times
- 4. Four times

23. Which is the correct symbol for the FRL?



24. In _____ the steel part is heated to the required hardening temperature & then quenched in molten salt bath usually at 300°C to 350°C.

- 1. Mar tempering
- 2. Austempering
- 3. Hardening
- 4. Carburising

25. The process of hardening steel by heating it with flame of an oxyacetylene torch is known as

- 1. Flame hardening
- 2. Tempering
- 3. Annealing
- 4. Homogenising

26. The connection is called a series connection in which the same _____ flows in the two lamps.

- 1. Current
- 2. Voltage
- 3. Resistance
- 4. Voltmeter

27. The connection is called parallel connection in which the same source _____ is applied across all lamps.

- 1. Current
- 2. Voltage
- 3. Ampere
- 4. Resistance

28. Ohm's law states that _____

1. $\frac{V}{I} = \text{constant } R$

2. $\frac{V}{I} = P \text{ constant}$

3. $\frac{V}{P} = \text{constant } R$

4. $\frac{I}{V} = \text{constant } R$

29. A _____ is an electrical device constructed of two conductive plates separated by an insulating material.

1. Rheostat

2. Capacitor

3. Voltage

4. Electrode

30. It is a process in which the punch removes a portion of material from strip.

1. Blanking

2. Riveting

3. Soldering

4. Brazing

31. _____ is the process of making cups, sheets etc.

1. Blanking

2. Drawing

3. Riveting

4. Brazing

32. In _____ welding hydrogen combines with oxygen to generate steam & attains flame.

1. TIG

2. MIG

3. Oxy hydrogen

4. Oxy acetylene

33. _____ is the difference between the actual size & the minimum limit of size.

1. Actual deviation

2. Fits

3. Tolerance

4. Limits

34. _____ always provides clearance.

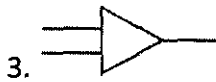
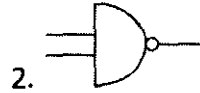
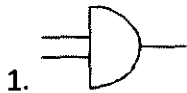
1. Maximum clearance

2. Clearance fit

3. Minimum clearance

4. Interference fit

35. Which of the following symbol represents AND gate?



36. In two wheeler following type of ignition system is used.

1. Battery coil ignition

2. Compression ignition

3. None of these

4. Magneto ignition

37. In two wheeler following type of clutch is used

1. Multi plate clutch

2. Single plate clutch

3. Centrifugla clutch

4. Cone clutch

38. Common rail fuel injection sys is used in

1. Diesel engine

2. Petrol engine

3. Two wheeler engine

4. Single piston engine

39. Ultrasonic testing is used for detection of _____.

1. Thickness of parts

2. Conductivity of material

3. Cracks in metal body

4. Strength of material

40. For alignment of com shaft journal this instrument is used

1. Voltmeter

2. Dial indicator

3. Pressure gauge

4. Micrometer

SPACE FOR ROUGH WORK

