| Question Booklet No. | 000697 |
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**Skill Development and Entrepreneurship Department**
**Directorate of Vocational Education and Training**
**Directorate of Skill Development, Employment and Entrepreneurship**
**Question Paper Group Name: Mechanical-6**
**Question Paper Post Names: Craft Instructor – Mechanic Machine Tool Maintenance, Tool & Die Maker (Jigs & Fixture)**

Duration: 60 Minutes | Total Question: 40

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**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. In case of 'V' belt, what will happen if incorrect tensioning given during running

1. Swelling
2. Softening
3. Whipping
4. Elongation

2. Elector magnetic clutch when open for maintenance,.....these clutch plates before assembly.

1. Demagnetise
2. Magnetise
3. Electrolize
4. Electroplating

3. A single universal coupling may be used below.....angular deviation in two axies.

1. $20^0$
2. $10^0$
3. $30^0$
4. $45^0$

4. After removing the high spots repeatedly the scraped marks comes nearer and nearer and the spot turns in the .....

1. Cavities
2. Bearing spot
3. Scrap
4. Spot

5. The point of contact of two pitch circles of mating gear is called.....

1. Pressure point
2. Pitch point
3. Module
4. Contact point

6. The minimum number of teeth on pinion to avoid interference in rack and pinion is.....

1. 18
2. 12
3. 24
4. 16

7. During welding, when the weld reduces the cross sectional thickness of the base metals is called_____.

1. Spattering
2. Blow hole
3. Undercutting
4. Penetration

8. Which of the following is not a specification of lathe machine tool?

1. Chuck size
2. Swing over diameter
3. Bed length
4. Distance between centres

9. Cutting fluids are used for

1. cool the tool
2. Improve surface finish
3. cool the work piece
4. All the above

10. Tumbler gear in the lathe machine are used for

1. Give desired direction of movement to the lathe carriage.
2. Drill a work piece
3. Cut gear
4. Reduce the spindle speed

11. The function of (use) Jig is

1. For holding the work in milling, planning or turning operations.
2. To check the accuracy of work piece.
3. for holding & guiding the tool in drilling, reaming or tapping operations.
4. None of the above

12. The surface speed of regulating wheel in centre less grinding is

1. 60 to 90 m/min
2. 15 to 60 m/min
3. 90 to 120 m/min
4. 5 to 15 m/min

13. Reciprocation of the cutting tool in shaping machines is accomplished by

1. Rack pinion mechanism.
2. Oscillating lever mechanism
3. Crank & connecting rod mechanism.
4. Cam & Cam follower mechanism

14. In ____ milling process, the feed direction & direction of rotation of cutter are in ____ direction.

1. Up, Same
2. Down, reverse
3. Down, Opposite
4. Up, opposite

15. Arc blow occurs in _____ welding.

1. AC
2. DC
3. Gas
4. Resistance

16. The portion of the cutting part enclosed between face & the flank is _____

1. Shank
2. base
3. Wedge
4. Rake face

17. The main purpose of grinding wheel guard is to

1. Limit grinding to a small part of the wheel.
2. Protect the operat from flying sparks.
3. Prevent pieces from being thrown from broken grinding wheel
4. All the above

18. For best eye protection when grinding, use____

1. Use the grinder's glass eye shield and wear goggles
2. Use the grinder's glass eye shield.
3. Use the grinder's glass eye shield and wear a face shield
4. Either 2) or 3)

19. When hand grinding a very short part on a bench or pedestal grinder, the part should be.

1. Held with long nose pliers
2. Held with vise grip pliers.
3. Held by hand
4. clamped to the tool rest.

20. A utility grinder mounted on its own free standing base is called as _____

1. A post grinder
2. A pedestal grinder
3. Freestanding grinder.
4. An upright grinder.

21. The device, fed to the control unit of NC machine tool which sends the position command signals to sideway transmission elements of the machine is called as

1. Tape
2. Controller
3. Feedback unit
4. None of the above

22. In CNC machine tool, the part program entered into the computer memory

1. Can be used again and again.
2. Can be used only once.
3. Can be used again but it has to be modified every time.
4. None of the above

23. Several machine tools can be controlled by a central computer in

1. NC machine tool
2. DNC machine tool
3. CNC machine tool
4. CCNC machine tool

24. Which type of pump is used for lifting water from the ground surface to the top of the building?

1. Centrifugal pump
2. Turbine pump
3. Submersible pump
4. All the above

25. What is the positive displacement pump?

1. Volume of fluid discharged cannot return back to the suction side of the pump.
2. Oil from suction side of the pump flows completely to the delivery side.
3. Discharges fixed volume of fluid every cycle
4. All the above

26. Which of the following joint have high corrosion resistance?

1. Welding joint.
2. Bolted joint
3. Riveted Joint
4. All the above

27. Single-V and Single U-butt welds are used for sheet of thickness.

1. Up to 10 mm
2. 10-20 mm
3. 5-15 mm
4. 15-25 mm

28. Which of the following types is not fillet weld?

1. Butt joint
2. Lap joint
3. T-Joint
4. Corner Joint

29. Which of the following is an example of fusion welding?

1. Arc welding
2. Forge welding
3. Resistance welding
4. Thermit welding

30. The metals having food weldability, in descending order are

1. Carbon steel, iron, cast steel, cast iron
2. Cast steel, iron, carbon steel, cast iron
3. Iron, carbon steel, cast steel, cast iron
4. Cast iron, iron, carbon steel, cast steel

31. Which type of compressor is used in a gas turbine plant?

1. Multistage axial flow Compressor
2. Screw compressor
3. Reciprocating compressor
3. Either 3) and 2)

32. _____ of power developed is utilized for driving the compressor?

1. 70%
2.65%
3. 55%
4. 85%

33. The compressor has to be started

1. Before starting the gas turbine
2. After starting the gas turbine
3. At any time during the operation
4. Simultaneously with starting of Gas turbine

34. A fixture does not

1. Hold the work piece
2. Locate the work piece
3. Guide the tool
4. All of the above

35. Jigs are not used in

1. Drilling
2. Reaming
3. Tapping
4. Milling

36. The following holds the work piece securely in a jig or fixture against the cutting forces.

1. Locating device
2. Guiding device
3. Clamping device
4. Indexing device

37. The difference between the maximum limit of size and the minimum limit of size is called____

1. Tolerance Zone
2. Size tolerance
3. Standard tolerance
4. All the above

38. Basic hole and basic shaft are those whose upper deviation and lower deviation respectively are _____

1. Zero, Zero
2. Minimum, Minimum
3. Minimum, maximum
4. None of the above

39. Expressing a dimension as $20.3 \pm 0.02$ mm is the case of

1. Limiting dimension
2. Unilateral dimension
3. Bilateral dimension
4. All of above

40. Which of the following methods is not used for testing straightness?

1. Interference method
2. Spirit level method
3. Auto collimator
4. Beam comparator

SPACE FOR ROUGH WORK