

Question Booklet No.

000731

Skill Development and Entrepreneurship Department
Directorate of Vocational Education and Training
Directorate of Skill Development, Employment and Entrepreneurship
Question Paper Group Name: Mechanical-12
Question Paper Post Names: Drawing Instructor

Duration: 60 Minutes

Total Questions: 40

INSTRUCTIONS

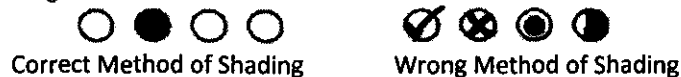
1. This Question Paper Booklet contents 40 mandatory questions. Candidate should check the Question Paper Booklet and ensure that it contents all pages and questions before starting to answer. If candidate finds any problem pertaining to printing/ binding/ incomplete pages etc, candidate should immediately 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

**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. Which of the following drawing equipment is used for supporting the drawing paper for making drawings?

- | | |
|------------------|------------------|
| 1. 'T' square | 2. Large divider |
| 3. Drawing Board | 4. Row Compasses |

2. In equilateral triangle

- | | |
|----------------------------|-------------------------------|
| 1. All three sides equal | 2. Two of its sides equal |
| 3. All three sides unequal | 4. One of angle is 90° |

3. Quadrilateral having opposite sides equal is called as

- | | |
|------------|------------------|
| 1. Square | 2. Rectangle |
| 3. Rhombas | 4. Parallelogram |

4. The ratio between the distances from the vertex to focus and vertex to focus and vertex to the directrix is called as

- | | |
|-----------------|----------------|
| 1. Focal radii | 2. Focus |
| 3. Eccentricity | 4. Taper ratio |

5. The curve traced by a point on a straight line which rolls around a circle or polygon without slip is called as

- | | |
|-------------|--------------|
| 1. Helix | 2. Hyperbola |
| 3. Involute | 4. Cycloid |

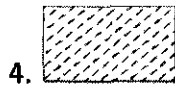
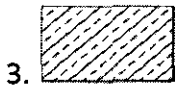
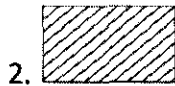
6. Dotted lines are used to show

- | | |
|---------------|-------------------------|
| 1. Section | 2. Dimensions |
| 3. Outer edge | 4. The internal details |

7. The cross-section of crane hook can be shown by

- | | |
|---------------------|--------------------|
| 1. Revolved section | 2. Removed section |
| 3. Offset section | 4. Fuel section |

8. Conventional representation of steel is



9. Hatching lines are usually drawn at an angle _____ to the horizontal.

1. 90°

2. 60°

3. 30°

4. 45°

10. A solid having one circular base and apex is

1. Cone

2. Cylinder

3. Sphere

4. Circle

11. In 1st angle method of projection the front view (elevation) is always _____

1. Below the top view

2. Above the top view

3. Side of top view

4. All of the above

12. A solid having six regular square faces is

1. Prism

2. Pyramid

3. Cube

4. Tetrahedron

13. The top view shows the only two dimensions, which are

1. Length & width

2. Length & Height

3. Height & Width

4. None of the above

14. _____ is the thread formed on the outside of a shaft.

- | | |
|--------------------|--------------------|
| 1. Internal thread | 2. External thread |
| 3. Square thread | 4. Splines |

15. Which of the following thread that advances into the work when turned clockwise?

- | | |
|----------------------|------------------------|
| 1. Left hand thread | 2. Single start thread |
| 3. Right hand thread | 4. Multiple thread |

16. The thread designated as Sq. 60 X 9 is : 4694-1968 is

- | | |
|-----------------------------------------------------|------------------------|
| 1. Square thread of nominal dia. 60 mm & pitch 9 mm | 2. Trape zoidal thread |
| 3. Acme thread | 4. Buttress thread |

17. Fastener used to lift the machines is

- | | |
|---------------------|------------------|
| 1. Lifting eye bolt | 2. Tap bolt |
| 3. Honk bolt | 4. 'T' head bolt |

18. In designation Hex bolt M20 X 75 X 1.5, M20 represents the

- | | |
|-----------------|--------------------------|
| 1. Nomenclature | 2. Type of precision |
| 3. Manufacturer | 4. Size of diameter – 20 |

19. The nut used to prevent corrosion & leakage of fluid from the threads is

- | | |
|-----------------|------------------|
| 1. Collared nut | 2. Washer |
| 3. Ring nut | 4. Domed cap nut |

20. Washers are provided to

- | | |
|-----------------------------------|--------------------|
| 1. Provide smooth bearing surface | 2. Prevent leakage |
| 3. Lock the nut | 4. All the above |

21. Calculate the diameter of rivet suitable for joining plates of 25 mm thick

- 1. 20 mm
- 2. 25 mm
- 3. 30 mm
- 4. 15 mm

22. Calculate the pitch of rivets for 36 mm diameter of rivet.

- 1. 101 mm
- 2. 108 mm
- 3. 75 mm
- 4. 50 mm

23. The process used to prevent leakage through the riveted joints is _____

- 1. Fullering
- 2. Rivetting
- 3. Clamping
- 4. Tapering

24. Double – V – Butt weld joint is represented by a symbol.




25. Pipes of different diameters are joined by the use of _____

- 1. Nipple
- 2. Plug
- 3. Coupler
- 4. Reducing sockets

26. To permit longitudinal expansion or contraction of metal in pipe line due to temperature, the _____ joint is used.

- 1. Union joint
- 2. Expansion Joints
- 3. Hydraulic joint
- 4. All of above

27.  Symbol is used for the electrical device.

- | | |
|-----------------|----------------|
| 1. Generator | 2. Motor |
| 3. AC generator | 4. D. C. Motor |

28. In machine drawing _____ lettering should never be used.

- | | |
|---------------|-----------|
| 1. Gothic | 2. Roman |
| 3. Ornamental | 4. Italic |

29. Sum of four angle in a quadrilateral is_

- | | |
|----------------|----------------|
| 1. 180° | 2. 90° |
| 3. 230° | 3. 360° |

30. If the angle between two lines is less than 90° is called as ____

- | | |
|-----------|-----------|
| 1. Right | 2. Acute |
| 3. Obtuse | 4. Reflex |

31. The straight line perpendicular to the major axis is called

- | | |
|--------------|------------|
| 1. Focus | 2. Vertex |
| 3. Directrix | 4. Segment |

32. Circle within the circle but with different centres are called as

- | | |
|----------------------|---------------------|
| 1. Concentric circle | 2. Eccentric circle |
| 3. Tangent | 4. Circumference |

33. The end points of major axis on the curve are called ____

- | | |
|--------------|-----------|
| 1. Focus | 2. Centre |
| 3. Directrix | 4. Vertex |

34. _____ triangle has all three sides unequal in length.

- | | |
|----------------|-----------------|
| 1. Equilateral | 2. Obtuse angle |
| 3. Right angle | 4. Scalen |

35. Side face of the prism has the shape.

- | | |
|----------------|---------------|
| 1. Rectangular | 2. Triangular |
| 3. Square | 4. Generator |

36. In IIIrd angle method of projection the object is placed in between

- | | |
|-----------------------------|-----------------------------|
| 1. Ground & H. P. | 2. VP & HP |
| 3. 1 st quadrant | 4. 2 nd quadrant |

37. In square nut the width across flats is ____

- | | |
|---------------|-------------|
| 1. $1.5d + 3$ | 2. $2d$ |
| 3. $3d$ | 4. $2d + 3$ |

38. When the plates are placed one above the other, the joint is called ____

- | | |
|-----------------|-----------------|
| 1. Butt joint | 2. Lap joint |
| 3. Solder joint | 4. All of above |

39. Metal end length of type 'B' studs is ____

- | | |
|-----------|-----------|
| 1. d | 2. $1.5d$ |
| 3. $2.5d$ | 4. $0.5d$ |

40. Left hand side view is drawn _____ to the front view in 1st angle projections

- | | |
|---------|----------|
| 1. Left | 2. Below |
| 3. Top | 4. Right |

SPACE FOR ROUGH WORK

EAL

EAL