Skill Development and Entrepreneurship Department
Directorate of Vocational Education and Training
Directorate of Skill Development, Employment and Entrepreneurship
Question Paper Group Name: Mechanical-1
Question Paper Post Names: Craft Instructor-Draftsman (Mechanical)

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.

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

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.

Any means of copying this Question Paper Booklet or any matter within in part or full, and/or transferring/ circulating during the examination period is prohibited and shall be treated as a means of criminal offence and the respective person shall be booked under **"Prohibition of Unfair Practices during examination Ordinance – 1982"** and shall be entitled for imprisonment for 1 year and / or penalty of Rs. 1000.

Further unauthorized handling, transfer or copying of this Question Paper Booklet and OMR Answer Sheet during examination period by the staff including Departmental Staff and Staff appointed for Examination purpose is also prohibited and entitled for action as per above ordinance.

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

1. X: I represents that

    1. Reduction Scale   2. Enlarged Scale

    3. Full Scale   4. Plain Scale

2. The ratio of isometric length to the true length is

    1. 0.9135   2. 0.9153

    3. 0.8165   4 0.8156

3. Couic section, famed by cutting plane inclined to the axis (Not parallel to the generator) and passes through a base is called

    1. Parabola   2. Cycloid

    3. Ellipse   4. Hyperbola

4. If a ball is thrown in the sky, and it drops at the certain distance from a point where it is thrown, then the path followed by the ball is

    1. Parabola   2. Hyperbola

    3. Cycloid   4. None of above

5. Dimensions of features are taken from datum/common origin is called

    1. Chain dimensioning   2. Parallel dimensioning

    3. Combined dimensioning   4. Running dimensioning

6. In side view of visible screw threads, crest diameter should shown by

    1. ¾ Circle   2. ½ circle

    3. Full circle   4. Double circle

7. The suitable thread form for toothpaste cap is

    1. Square   2. Acme

    3. Knuckle   4. Buttress

8. The development of surfaces of a frustum of a cone can be drawn with

    1. Parallel line method   2. Radial line method

    3. Triangulation method   4. None of above

9. If a 60° inclined cutting plane (to H.P) cutting a long vertical cylinder through its center, the true shape obtained is

    1. Parabola   2. Ellipse

    3. Tringle   4. Hyperbola

10. The side view of the object appears on

    1. AVP   2. AHP

    3. HP   4. VP

11. The ratio of pitch and lead for quadruple start thread is

    1. 4   2. ¼

    3. 1/8   4. ½

12. Radius of woodruff key is _____(d-diameter of shaft)

    1. d/4   2. d/6

    3. d/8   4. d/3

13. Sirclips are also called.

    1. Circular rings   2. Pilot rings

    3. Washers   4. Retaining rings

14. This symbol is used to represent

    1. Fillet weld on one side of T.   2. Double v-Butt joint

    3. Weld all round T.   4. Fillet weld each side of T

3

15. Chaeellcing and fullesing is process of

    1. Making the rivetled joint leak proof.   2. Making the rivetled joint of equistrength

    3. To enliance the efficiencey of rivetled joint   4. To maintain the distance between two rooms.

16. The general formula to find the diameter (d) of rivet for plate thickness t in mm.

    1. $104 \sqrt{t}$ 2. $6 \sqrt{t}$

    3. $8 \sqrt{t}$ 4. $2.8 \sqrt{t}$

17. The intentional difference left between the two mating surfaces of assembly is called

    1. Tolerance   2. Fit

    3. Allowance   4. Fundamental deviation

18. For joining two mis-aligned shaft the following coupling is used

    1. Muff coupling   2. Oldham's coupling

    3. Flanged coupling   4. Friction grip coupling

19. Carburetor is a part of

    1. High speed diesel engine   2. S.I engine

    3. C.I engine   4. CRDI engine

20. While hatching the assembly, the mating parts are shown with;

    1. Hatching in different directions   2. By changing the distance in hatching

    3. A & B   4. None of above

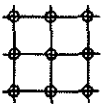21. In S.I engine the ignition of fuel takes place due to

    1. High temperature   2. Injection of fuel

    3. Spark plug   4. High compression ratio

22. Function of piston ring is

    1. To form gas tight seal between the piston & the cylinder

    2. To transfer the heat from the combustion chamber to the piston & cylinder

    3. To control the lubrication between piston & the cylinder walls

    4. All above

23. The task of cam shaft is to

    1. Provide motion to piston   2. To drive valve train to operate the valve at correct moment.

    3. To disengage driving & driven shaft   4. To provide electric current to spark plug

24. The command used to produce multi object efficiently in CAD

    1. Copy   2. Arrey

    3. Make block   4. Layer

25. How many methods, can be used to draw the circle in CAD

    1. 3   2. 4

    3. 5   4. 6

26. The command used to breaks a compound object into component object is

    1. Break   2. Trim

    3. Explode   4. Divide

27. Auto CAD is a package suitable for

    1. Only 2D   2. Only 3D

    3. 2D & 3D   4. 3 ½ D

28. Which is not a part of geometric modeling?

    1. Wireframe modeling   2. Surface modeling

    3. Solid modeling   4. Object modeling

29. Efficiency of gear train is about

    1. 50%   2. 67%

    3. 88%   4. 99%

30. Pulley is used along with

    1. Ropes   2. Belts

    3. Chains   4. 1 & 2

31. Carburetor is used to supply _____to engine

    1. Air   2. Fuel

    3. Air & Fuel mixture   4. Air & Lubricating oil

32. Snap gauges are used to check

    1. Shaft   2. Hole

    3. Gap   4. Taper

33. A special device which holds, supports locates and also guides the cutting tool is called

    1. Fixture   2. Jig

    3. Clampling plate   4. Indexing head

34. In lever loaded safety valve the weight attached depends upon_____

    1. Intensity of pressure   2. Length from fulcrum

    3. Length of lever   4. All above

35. Tail stock in lathe machine is used to

    1. To support other end of work piece   2. To hold tool for perferuing operation

    3. 1 & 2 above   4. None of above

36. This convention is hydraulic is used for

    1. Valve   2. Blow off cock

    3. Pump   4. Jack

37. In 3-2-1 pin method of location, 3 pins are used

    1. In left side   2. Top side

    3. Bottom side   4. Front side

38. In Screw jack, the threads used on the screw is

    1. V   2. Square

    3. Metric   4. Knuckle

39. The command used in CAD to round the outer edges of the part is

    1. Fillet   2. Chamfer

    3. Trim   4. Cut

40. Following is not a pren operation

    1. Deep drawing   2. Curling

    3. Blanking   4. Knurling

SPACE FOR ROUGH WORK