

BIRLA INDUSTRIAL & TECHNOLOGICAL MUSEUM
(A unit of National Council of Science Museums)
19A, Gurusaday Road, Kolkata – 700 019

Written Test for recruitment of Technician 'A' (Carpentry)

Date: 18.01.2023

Marks: 30

Time: 1 hour

Roll No: _____

Signature: _____

General Instructions:

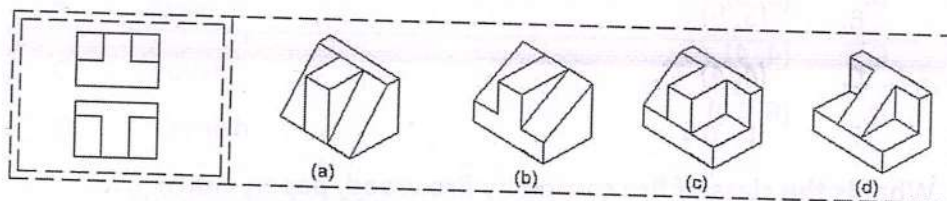
1. All questions are compulsory.
2. To answer objective type questions put a (√) mark on the correct answer in the question paper itself from the 4 alternatives given below against each question.
3. To change answer, put (X) on previous answer and (√) the fresh answer.
4. Smart phone/smart watch are to be put on switched off mode in the examination hall.
5. There is no negative marking.

(0.75 X 40) = 30

1. The lock that cannot be operated either from inside or from outside by operating the locking arm is

- A. Mortise lock
- B. Rim lock
- C. Pad lock
- D. Night latch lock

2. Isometric view corresponding to this orthographic view in first angle projection is



3. Most common and strongest form of framing joint is?

- A. Lap joint
- B. Mortise and Tenon joint
- C. Box joint
- D. Housing joint

4. Which one among the following medium is used in kiln seasoning?

- A. Water
- B. Hot air
- C. Chemical
- D. Smoke

5. Which tool is used for laying out larger circles and arcs on the wood pieces?

- A. Divider
- B. Trammel points
- C. Spirit level
- D. Try square

6. A carpenter prepares a new chair in 3 days, working 8 hours a day. At least how many hours per day must he work in order to make the same chair in 4 days?

- A. 5 hours per day
- B. 7 hours per day
- C. 6 hours per day
- D. 10 hours per day

7. Find the coordinates of midpoint of the line segment made by joining the points (5, -3) and (-1, 7)

- A. (2, 2)
- B. (3, 5)
- C. (4, 4)
- D. (6, 10)

8. What is the class of fire caused by fire wood, paper, cloth?

- A. Class A fire
- B. Class B fire
- C. Class C fire
- D. Class D fire

9. The purpose of seasoning is not to reduce

- A. Weight
- B. Shrinkage
- C. Hardness
- D. Warpage

10. Calculate the volume in cubic meter of a wooden plank of size 500 x 1000 x 50 mm

- A. 0.25
- B. 0.025
- C. 0.0025
- D. None of the above

11. While operating a thickness planner, what is the minimum safe distance from cutting blade to the finger?

- A. 100 mm from cutters
- B. 50 mm from cutters
- C. 10 mm from cutters
- D. 1 mm from cutters

12. Which is the composition of white lead and zinc mixed with linseed oil?

- A. Paint
- B. Stain
- C. Polish
- D. Varnish

13. What is the grinding angle of firmer chisel?

- A. $10^\circ - 15^\circ$
- B. $15^\circ - 20^\circ$
- C. $20^\circ - 25^\circ$
- D. $25^\circ - 30^\circ$

14. What is the tool used to check the surface and squareness of edge?

- A. Try square
- B. Bevel square
- C. Plumb bob
- D. Standard wire gauge

15. Which type of joint is used for fixing shelves?

- A. Housing joint
- B. Scarf joint
- C. Bridle joint
- D. Halving joint

16. One cubic metre is:

- A. 100 cft
- B. 35.315 cft.
- C. 25.48 cft
- D. 10.76 cft.

17. What is the advantage of bradawl?

- A. Making small holes
- B. Making deep holes
- C. Making large holes
- D. Making shallow holes

18. Which is an oil preservative?

- A. Tar
- B. White arsenic
- C. Sodium fluoride
- D. Zinc chloride

19. Which type of grain on wood is suitable for furniture?

- A. Straight grain
- B. Cross grain
- C. Interlock grain
- D. Wayne grain

20. What is the special purpose of copper and brass nails?

- A. Roofing
- B. Packing
- C. Boat building
- D. Railway sleeper's

21. What is the maximum limit of size if size on drawing is $20_{-0.021}^{-0.012}$?

- A. 19.988
- B. 19.979
- C. 20.012
- D. 20.021

22. Which dimension is measured by using screw thread micrometer?

- A. Pitch of screw thread
- B. Minor dia of screw thread
- C. Major dia of screw thread
- D. Mean dia of screw thread

23. Which type of thread is used in screw jack?

- A. Vee thread
- B. Acme thread
- C. Knuckle thread
- D. Square thread

24. Which file is used for sharpening the teeth of wood working saws?

- A. Barrete file
- B. Tinker s file
- C. Mill saw file
- D. Riffler file

25. What is the accuracy of Vernier bevel protractor?

- A. 1°
- B. 5°
- C. $5'$
- D. $5''$

26. Acid rain is caused due to pollution of atmosphere by

- A. Oxides of nitrogen and sulphur
- B. Oxides of nitrogen and phosphorus
- C. Oxides of carbon and nitrogen
- D. Oxides of nitrogen and methane

27. What is the material used to manufacture bench vice?

- A. Tool steel
- B. High carbon steel
- C. Medium carbon steel
- D. Cast iron

28. Find the HCF of 54, 288, 360:

- A. 18
- B. 36
- C. 54
- D. 108

29. What will be the LCM of 8,24,36 and 54:

- A. 54
- B. 108
- C. 216
- D. 432

30. Find the simple interest on Rs. 5200 for 2 years at the rate of 6% per annum:

- A. 450
- B. 524
- C. 600
- D. 624

31. Evaluation of $8^2 \times 8^3 \times 8^{-5}$ is:

- A. 1
- B. 0
- C. 8
- D. None of these

32. Which tool is used to make small curves in confined space?

- A. Rip saw
- B. Compass saw
- C. Cross cut saw
- D. Firmer chisel

33. Which saw is used for cutting the thick wood perpendicular to the grain?

- A. Tenon saw
- B. Dovetail saw
- C. Cross cut saw
- D. Rip saw

34. What is the use of plumb bob?

- A. To measure the plainness
- B. For cutting
- C. To measure straight length
- D. None of these

35. In wooden jack plane, blade angle with horizontal is?

- A. 40°
- B. 45°
- C. 50°
- D. 60°

36. To make the edge of wooden board straight and square is known as:

- A. Wainscot
- B. Shooting
- C. Groove
- D. Planing

37. Which is the lowest part of the window frame:

- A. Panal
- B. Horn
- C. Sill
- D. Bottom rail

38. Calculate the volume of the wooden plank of size 15'x9"x8":

- A. 7.5cu.ft
- B. 8.5 cu.ft
- C. 7 cu.ft
- D. 8 cu.ft

39. Which timber is closely grained, hard and durable?

- A. Kail
- B. Chair
- C. Teak
- D. Deoder

40. Which material is used to manufacture blade of chisel?

- A. Mild steel
- B. Carbon steel
- C. Low carbon steel
- D. Forged tool steel