

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

Booklet Serial No.

002169

Test Booklet Series

TEST BOOKLET - 2022

NON ENGINEERING WOOD TECHNOLOGY

LECTURER II

(13)

A

Time Allowed: Two Hours

Maximum Marks: 100

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES **NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Response Sheet. Any omission/discrepany will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.
4. This Test booklet contains **100** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Response sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Response Sheet provided. See directions in the Response Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Response sheet the response to various items in the Test Booklet you have to fill in some particulars in the Response Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Response Sheet**. You are permitted to take away with you the Test Booklet and Candidate's Copy of the Response Sheet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **0.25** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no **penalty** for that question.

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SEAL

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1. What does the outer bark contain?
 - A) Suberin
 - B) Pith
 - C) Hardwood
 - D) Wood Pole

2. What are openings on the radial surface known as?
 - A) Reaction Wood
 - B) Pith
 - C) Mitochondria
 - D) Pits

3. Wood can be classified into X, Y, and Z grades based on
 - A) Seasonal characteristics
 - B) Elasticity
 - C) Durability
 - D) Availability

4. Which of the following is a hardwood?
 - A) Deodar
 - B) Kail
 - C) Mahogany
 - D) Chir

5. What is the treatment for making timber fire-resistant?
 - A) Abel's Process
 - B) Tarring
 - C) ASCU treatment
 - D) Cerosoting

6. Match List - I with List - II

List - I

- a. Pigment
- b. Drier
- c. Thinner
- d. Extender

List - II

- i) Turpentine
- ii) Iron Oxide
- iii) Zinc sulphate
- iv) Aluminium silicate

- A) (a) — iii, (b) — ii, (c) — i, (d) — iv
- B) (a) — ii, (b) — iii, (c) — i, (d) — iv
- C) (a) — iii, (b) — ii, (c) — iv, (d) — i
- D) (a) — ii, (b) — iii, (c) — iv, (d) — i

7. The drawback of electric seasoning of timber is

- A) Cracks
- B) Checks
- C) Splitting
- D) Strength

8. In hardwood, annual rings are

- A) Less distinct
- B) Clearly visible
- C) Less distinct and far apart
- D) Less distinct and nearer to each other

9. The moisture content in structural timber should be

- A) 0 to 5%
- B) 5 to 10%
- C) 15 to 25%
- D) 10 to 20%

10. A natural defect in timber in cracks extend from bark towards sapwood is called as

- A) Cup shakes
- B) Radial shakes
- C) Ring shakes
- D) Star shakes

11. A hammer is a type of
- A) Gooseneck
 - B) Wedge
 - C) Lever
 - D) Fulcrum
12. A power drill for woodworking should be variable speed and
- A) Reversible
 - B) Cordless
 - C) Heavy
 - D) All of the above
13. When operating a portable power sander
- A) Start the tool above the work surface.
 - B) Make sure the abrasive belt is in good condition.
 - C) Wear goggles or a face shield
 - D) All of the above
14. With respect to the composite material the following statements below are
- 1) It is considered to be any multiple materials that exhibit a significant proportion of the properties of both constituents
 - 2) The composition of the constituent phase should be chemically similar
 - 3) The combination of matrix and reinforcing material is used in the composite
 - 4) Thermosetting epoxy resin is used as the matrix for some kinds of composition
- Which statements are correct?
- A) 1, 2 and 3
 - B) 1, 2 and 4
 - C) 1, 3 and 4
 - D) 2, 3 and 4
15. Dowel centers are
- A) Pieces of dowel rod used to strengthen joints
 - B) Small metal pins used for marking.
 - C) The wooden cores of dowel rods
 - D) None of the above.

16. Rabbet joints are commonly used in the construction of cases, cabinet frames and
- A) Drawers
 - B) Roofing members
 - C) Tabletops
 - D) Picture frames
17. When cutting a rabbet by hand, make the shoulder cut with a
- A) Backsaw
 - B) Dovetail saw
 - C) Sharp file
 - D) Reciprocating saw
18. The correct depth of the dado is usually
- A) Twice
 - B) One-fourth
 - C) Three-fourth
 - D) One-half
19. Hand tools used to cut a mortise include a drill and a
- A) Miter box
 - B) Chisel
 - C) Dado cutter
 - D) Rip saw
20. The ends of the socket piece in a dovetail joint are called
- A) Half-pins
 - B) Tails
 - C) Pins
 - D) Blind ends

21. A screw-mate drill and countersink can be used with
- A) Wood plugs
 - B) Flathead screws
 - C) Roundhead screws
 - D) Dowel screws
22. The two basic types of hardware are cabinet hardware and
- A) Surface hardware
 - B) Metal fasteners
 - C) Structural hardware
 - D) Metal guides
23. Flat cutting produces a
- A) Patterned grain
 - B) Cathedral grain
 - C) Irregular grain
 - D) Flat grain
24. Which of the following can be used to cut veneer?
- A) Craft knife
 - B) Paper cutter
 - C) Utility knife
 - D) All of the above
25. The jointer is used for
- A) Smooth
 - B) Square up
 - C) Straighten
 - D) All of the above

26. The elevating crank is used to adjust
- A) Depth of cut
 - B) Angle of cut
 - C) Cutting width
 - D) All of the above
27. To cut a bevel, adjust the track for
- A) Straight crosscutting
 - B) Duplicate parts
 - C) Cutting from the bottom
 - D) Ripping
28. When adjusting the sliding compound miter saw, loosen the locking handle or lever and tilt the _____ to the desired angle.
- A) Saw head
 - B) Fence
 - C) Turntable
 - D) Clamping device
29. The scroll saw is also called a
- A) Coping saw
 - B) Band saw
 - C) Compass saw
 - D) Jigsaw
30. Multispur bits are used
- A) To cut perfectly round, flat-bottomed holes.
 - B) To create countersinks.
 - C) To cut dowels.
 - D) To cut rough holes.

31. Which of the following is usually not cut with a plunge router?
- A) Rabbet
 - B) Dado
 - C) Edge
 - D) Mortise
32. During sanding, the movement of the abrasive against the wood generates
- A) Friction
 - B) Tension
 - C) Adhesion
 - D) Static electricity
33. What is the role of matrix in Glass Fiber Reinforced Plastic (GFRP)
- 1) Support and transfer the stresses to the fibers
 - 2) To reduce the propagation of cracks
 - 3) To carry the entire load
 - 4) To protect the fibers against damage
- A) 1, 2 and 4
 - B) 2 and 4
 - C) 1, 2 and 3
 - D) 1, 3 and 4
34. Sanding discs are installed using
- A) Two wrenches of different sizes
 - B) A tension knob
 - C) A chuck key
 - D) Pressure-sensitive adhesive
35. Spindle turning involves turning stock held between the live center and the
- A) Tool rest
 - B) Dead center
 - C) Spur
 - D) Headstock

36. Rough turning is begun using a
- A) Gouge
 - B) Spindle
 - C) Round nose
 - D) None of the above
37. The vertical part of a shoulder is cut with a
- A) Skew
 - B) Parting tool
 - C) Gouge
 - D) Hermaphrodite caliper
38. Which of the following is a penetrating finish?
- A) Enamel
 - B) Varnish
 - C) Shellac
 - D) Danish Oil
39. Pumice is used to
- A) Removes excess glue
 - B) Remove old paint
 - C) Clean brushes
 - D) Rub down a finish
40. A shallow dent in wood can sometimes be repaired by
- A) Filling it with a sliver of wood
 - B) Using steam to swell the wood
 - C) Rubbing it with white shellac
 - D) Filling it with glue

41. Match Group - I and Group - II

Group - I

- a. Deciduous
- b. Conifer
- c. Endogenous
- d. Exogenous

- A) a-2, b-1, c-4, d-3
- B) a-1, b-2, c-3, d-4
- C) a-2, b-1, c-3, d-4
- D) a-1, b-2, c-4, d-3

Group -II

- 1. Softwood
- 2. Hardwood
- 3. Eucalyptus
- 4. Bamboo

42. Hand tools used to cut a tenon include a backsaw or

- A) Table saw
- B) Rip saw
- C) Fine crosscut saw
- D) Dovetail saw

43. A hinge is a piece of hardware used as a

- A) Repair plate
- B) Support
- C) Joint
- D) All the above

44. All veneer slices cut from a single log are kept in bundles called

- A) Cuts
- B) Fitches
- C) Books
- D) Collections

45. Wood shrinks and swells as a function of

- A) Stress
- B) Shear Stress
- C) Moisture content
- D) Temperature

46. How many methods of artificial seasoning are there?
- A) 3
 - B) 4
 - C) 5
 - D) 8
47. Which of the following pairs regarding the defects in timber are correctly matched?
- 1. Upsets due to over maturity and unventilated star age of the wood.
 - 2. Fwciness due to crushing of fibers running transversal.
 - 3. Star shakes radial splits widest at the circumference and diminishing towards the center.
 - 4. Heart shakes crack widest at the center and diminish towards the outer circumference.
- A) 1 and 4
 - B) 1 and 2
 - C) 3 and 4
 - D) 2 and 4
48. Which of the following tree is not an example of a thorny type forest?
- A) Khair
 - B) Kelkar
 - C) Red sandal
 - D) Babool
49. The mode of pollination of gymnosperms is
- A) Hydrophily
 - B) Entomophily
 - C) Anemophily
 - D) All the above
50. In gymnosperm endosperm is
- A) Triploid
 - B) Diploid
 - C) Tetraploid
 - D) Haploid

51. The tallest known gymnosperm is
- A) Pinus
 - B) Ginkgo
 - C) Ephedra
 - D) Sequoia
52. Which of the following feature distinguish a monocot from a dicot plant
- A) Venation
 - B) Vernation
 - C) Aestivation
 - D) Phyllotaxy
53. The following steps are involved in laying a sewer in a trench:
1. Transferring the center line of the sewer to the bottom trench.
 2. Setting sight rails over the trench.
 3. Driving pegs to the level of the inverted line of the sewer.
 4. Placing the sewer of these steps is The correct sequence of these steps is
- A) 1, 2, 3, 4
 - B) 2, 3, 1, 4
 - C) 4, 2, 3, 1
 - D) 2, 3, 4, 1
54. Thick and woody climbers are called as
- A) Suckers
 - B) Lianas
 - C) Climbers
 - D) Creepers
55. If a fully saturated soil mass has a water content of 100%, then its void ratio is
- A) Less than the specific gravity
 - B) Greater than the specific gravity
 - C) Does not depend on specific gravity
 - D) Equal to specific gravity

56. The rate of energy emission from the unit surface area through the unit solid angle, along a normal to the surface is known as
- A) Reflectivity
 - B) Emissivity
 - C) Intensity of radiation
 - D) Transmissivity
57. The major factors other than density that can affect the production of smooth surfaces during wood machining are
- A) Interlocked and variable grain
 - B) Hard mineral deposits
 - C) Reaction wood
 - D) All of the above
58. Consider the following statements:
- A: In masonry, bricks are joined together by cement mortar.
- B: Cement mortar adheres more effectively to the brick surface than any other material.
- A) Both A and B are true and B is the correct explanation of A
 - B) Both A and B are true and B is not the correct explanation of A
 - C) A is true and B is false
 - D) A is false but B is true
59. The Sericulture industry is based on
- A) Oak plant
 - B) Mulberry plant
 - C) Palash
 - D) Aonla
60. Which is not a type of agroforestry plant nursery?
- A) Marshy nursery
 - B) Dry nursery
 - C) Wet nursery
 - D) None of the above

61. The location of IGFRl is
- A) Delhi
 - B) Jhansi
 - C) Chennai
 - D) Patna
62. The national research center, agroforestry was established in
- A) 1987
 - B) 1988
 - C) 1989
 - D) 1990
63. Which agroforestry tree drains a large amount of groundwater?
- A) Subabul
 - B) Mahua
 - C) Eucalyptus
 - D) Sal tree
64. Consider the following statements regarding Plane Table Surveying
1. It is less accurate than chain surveying.
 2. It is not necessary to do accurate centering of the plane table for the small-scale survey.
 3. Compass rule may be made use for adjusting the plane table transverse.
 4. From the instrument station, resectors are drawn to plot the position of an object in the field.
- A) 1, 3 and 4 are correct
 - B) 2, 3 and 4 are correct
 - C) 1, 2 and 3 are correct
 - D) 1, 2 and 4 are correct
65. The flame of the forest is native to
- A) China
 - B) Australia
 - C) Arab world
 - D) Indian Subcontinent

66. The scrub forests have a tree density of
- A) 0.1
 - B) 0.01
 - C) 0.001
 - D) 1
67. Tree density is measured in
- A) Tree per hectare
 - B) Tree per acre
 - C) Tree per square meter
 - D) Tree per square kilometer
68. Agroforestry is a type of
- A) Mixed cropping
 - B) Double cropping
 - C) Mono cropping
 - D) Multiple cropping
69. What does NWWDA stand for?
- A) National Wood Window and Door Association
 - B) National Wood Wild and Door Association
 - C) National Wild Water and Door Association
 - D) National Wood Water and Door Association
70. Shear strength of timber depends on which one of the following
- A) Lignin with fibers
 - B) Medullary rays
 - C) Sapwood
 - D) Heartwood

71. Consider the following statements:

A collision diagram is used to

1. Study accident pattern
2. Eliminate accidents
3. Determine remedial measures
4. Make statistical analysis of accidents

Of these statements:

- A) 2 and 4 are correct
- B) 1 and 2 are correct
- C) 1 and 3 are correct
- D) 3 and 4 are correct

72. Knots in Timber are

- A) Speckled stains
- B) Spits radiating from the center
- C) Defects caused by crushing fibers
- D) Signs of branches cut off

73. The age of the exogenous tree can be judged from

- A) Annual rings
- B) Cambium layer
- C) Inner bark
- D) Medullary rays

74. The property of Plywood is

- A) Good strength along the panel only
- B) Tendency to bend easily
- C) Greater impact resistance
- D) Tendency to split in the plane of the panel

75. The strength of timber is maximum in a direction

- A) Perpendicular to grains
- B) Same in all directions
- C) Parallel to grains
- D) Adjacent to grains

76. The best season for felling trees for timber production in hilly areas is
- A) Summer
 - B) Spring
 - C) Winter
 - D) Monsoon
77. Consider the following statements:
Sand in mortar is needed for
- 1. Decreasing the quantity of cement.
 - 2. Reducing shrinkage.
 - 3. Decreasing the surface area of the binding material.
 - 4. Increasing the strength.
- A) 1, 2 and 4 are correct
 - B) 1, 2 and 3 are correct
 - C) 1, 3 and 4 are correct
 - D) 2, 3 and 4 are correct
78. Radial splits in timber originating from bark and narrowing towards the pith are known as
- A) Star shakes
 - B) Rind galls
 - C) Cup shakes
 - D) Heart shakes
79. A crack that separates the wood fibers is called
- A) Collapse
 - B) Warp
 - C) Check
 - D) Split
80. Good preservation should be
- A) Be poisonous
 - B) Having Pleasant Odour
 - C) Unaffected by heat and moisture
 - D) Having white color

81. Which method of application of preservative is suitable for moist timber?
- A) Soaking
 - B) Hot and cold tank treatment
 - C) Brushing and spraying
 - D) Pressure application
82. Which of the following makes the timber look sound but might fail it without pre- warning?
- A) Wasps
 - B) White ants
 - C) Beetles
 - D) Insects
83. Ascue is a
- A) Preservative
 - B) Natural defect
 - C) Defect by insects
 - D) Type of marine borer
84. The defect caused due to over maturity and poor ventilation of the tree is called
- A) Foxiness
 - B) Heart shake
 - C) Ring galls
 - D) Knot
85. The timber piece whose breadth and thickness exceed 50 mm, but are less than 200 mm in length is called as
- A) Scantling
 - B) Pole
 - C) Baulk
 - D) Batten
86. Which IS code is used for the classification of timber for seasoning purposes?
- A) IS: 1141-1958
 - B) IS: 1708-1969
 - C) IS: 4970-1973
 - D) IS: 399-1963

87. Which of the below adhesive is not attacked by water?
- A) Starch glue
 - B) Albumin glue
 - C) Vegetable glue
 - D) Rubber glue
88. The correct sequence of the increasing order of the disturbance to soil samples obtained from the chunk, piston, split spoon and remolded sampler is
- A) Piston sampler, chunk sampler, split spoon sampler, remolded sampler
 - B) Chunk sampler, piston sampler, split spoon sampler, remolded sampler
 - C) Piston sampler, chunk sampler, remolded sampler, split spoon sampler
 - D) Chunk sampler, piston sampler, remolded sampler, split spoon sampler
89. Nitrocellulose glue is prepared from
- A) Pyridine
 - B) Benzene
 - C) Pyroxylin
 - D) Resin
90. Epoxy adhesives are used in the manufacturing of
- A) Plywood
 - B) Glass
 - C) Fabric
 - D) Plastic
91. Consider the following statements:
The disease of dry rot in timber is caused by:
- 1. Complete submergence in water.
 - 2. Alternate wet and dry conditions.
 - 3. Lack of ventilation.
- Which of the statements given above is/are correct?
- A) 1 only
 - B) 2 only
 - C) 3 only
 - D) 2 and 3

92. Which glue can bond metal to wood?
- A) Super glue
 - B) PVC cement
 - C) Contact cement
 - D) Gorilla glue
93. Vegetable glue is used for
- A) Labeling
 - B) Joining glass
 - C) Plastic adhesion
 - D) Plywood adhesion
94. Which of the following is not an application of a sandwich panel?
- A) Fabrication of wings of aircraft
 - B) Fabrication of roofs, floors, and walls of buildings
 - C) Design of ships, boat hulls
 - D) Conveyor belts
95. Which of the following statements about the design period are true?
- 1. It is concerned with the economy of investment.
 - 2. It takes into account aspects like the life of durability and ease or difficulty of a capacity increase of installations.
 - 3. It considers the frequency of occurrence of extremes of river flow.
 - 4. It is concerned with estimating future requirements.
- Select the correct answers using the codes given below:
- A) 1, 2 and 4
 - B) 1, 2, 3 and 4
 - C) 2 and 3
 - D) 1, 3 and 4
96. The woodworking lathe is the type of
- A) Engine lathe
 - B) Centre Lathe
 - C) Speed Lathe
 - D) Special purpose lathe

97. Which of the following are the criteria associated with the design of a sag vertical curve?
1. Provision of minimum stopping distance during daytime
 2. Adequate drainage
 3. Comfortable operation
 4. Pleasant appearance
- A) 1, 2 and 4
B) 2 and 3
C) 1 and 3
D) 2, 3 and 4
98. What is the preparation of putty?
- A) Resin and common wax
B) Gum mastic
C) Gum sandaraz
D) Lead and Sinc
99. What is the name of the first coat in the painting?
- A) Gluing
B) Priming
C) Varnishing
D) Polishing
100. Consider the following steps:
1. Driving sheet piles surrounding a vibration-receiving structure.
 2. Digging a trench around a source of vibration.
 3. Placing rubber mountings between a machine causes vibration and its base. Active isolation of vibration can be achieved by
- A) 1 and 2
B) 1 and 3
C) 2 and 3
D) 3 alone

ROUGH WORK

ROUGH WORK