

021/23

Question Booklet Alpha Code

A

Question Booklet Sl. No.

Total Number of Questions : 100

Time : 90 Minutes

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C & D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator **IMMEDIATELY**.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

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1. Which fire extinguisher is used to extinguish class 'B' fire ?
A) Halon extinguisher
B) Carbon-dioxide extinguisher
C) Dry powder extinguisher
D) Foam extinguisher
2. What is the period referred as "Golden Hoarse" ?
A) First 30 minutes after incident
B) First 30 minutes after first aid
C) First 45 minutes of admission
D) First 60 minutes after treatment
3. What is the colour code for plastic waste bin ?
A) Yellow
B) Blue
C) Green
D) Red
4. What is the immediate action to be taken in the event of fire ?
A) Inform floor in charge
B) Close doors and windows
C) Raise an alarm
D) Call medical assistance
5. Which bolt is used to convert rotational speed into longitudinal speed ?
A) Shackles bolt
B) Cotter bolt
C) Levis bolt
D) Eye bolt
6. What is the length of pipe projection required from the vice while threading GI pipes ?
A) 100 – 125 mm
B) 150 – 250 mm
C) 150 – 200 mm
D) 125 – 150 mm
7. What are the weld positions for pipes by gas welding ?
A) 1G, 2G, 3G and 4G
B) 1G, 2G, 4G and 6G
C) 1G, 2G, 5G and 6G
D) None of these
8. Which type of filler metal does not require flux while gas welding ?
A) High Silicon Cast Iron
B) Mild Steel-Type S-FSI
C) Copper Filler Rod
D) Medium Nickel Bronze

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9. The Brass and Bronze are welded by _____ flame.
- A) Carburising
 - B) Neutral
 - C) Oxidizing
 - D) Normal
10. The cone shaped holes that appear on the surface of plaster is known as
- A) Flaking
 - B) Crazing
 - C) Popping
 - D) Bending
11. Which bond of bricks are laid cross wise with 5 cm lap each coarse ?
- A) Stretcher bond
 - B) Header bond
 - C) Raking bond
 - D) Dutch bond
12. Which type of bricks are used in construction such as bridges, storage building, etc. ?
- A) Heavy duty bricks
 - B) Perforated bricks
 - C) Solid bricks
 - D) Fire bricks
13. The following type of GLOVES are used to protect against burns
- A) Asbestos
 - B) Rubber
 - C) Plastic
 - D) Cloth
14. How to stop bleeding of injured person ?
- A) Tie bandage
 - B) Apply ointment
 - C) Apply pressure over the wound
 - D) Apply tincture over the wound
15. What type of saw is used to cut a pipe ?
- A) Coarse pitch saw
 - B) Medium pitch saw
 - C) Fine pitch saw
 - D) Very fine pitch saw

16. Which type of filler rod contains copper, aluminium, tin along with zinc ?
- A) Ferrous filler rod
 - B) Alloy type filler rod for ferrous metals
 - C) Non-ferrous filler rod
 - D) Alloy type filler rod for non-ferrous metals
17. The chemical formula for acetylene gas is
- A) CH_4
 - B) C_2H_2
 - C) CH_2
 - D) C_4H_4
18. What type of solder is used for soldering in heavy [thick] metal ?
- A) Soft solder
 - B) Coarse solder
 - C) Hard solder
 - D) Fine solder
19. Which maximum diameter pipes can be bend using radius collar bending machine ?
- A) 15 mm dia
 - B) 20 mm dia
 - C) 25 mm dia
 - D) 30 mm dia
20. What size of nozzle number is used to weld 5 mm thick plate ?
- A) Nozzle size No. 7
 - B) Nozzle size No. 18
 - C) Nozzle size No. 13
 - D) Nozzle size No. 10
21. Chemically, lime is mainly
- A) Calcium Carbonate
 - B) Calcium Oxide
 - C) Magnesium Oxide
 - D) Magnesium Nitrate
22. Which of the following is known as independent scaffolding ?
- A) Cantilever scaffolding
 - B) Double scaffolding
 - C) Suspended scaffolding
 - D) Steel scaffolding
23. What is the minimum compressive strength of first class bricks ?
- A) 120 kg/cm^2
 - B) 105 kg/cm^2
 - C) 110 kg/cm^2
 - D) 115 kg/cm^2

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24. What is the percentage of strength for the cement in storage after 3 months ?
A) 48% strength
B) 85% strength
C) 75% strength
D) 60% strength
25. The angle of squint junction is generally
A) 45°
B) 90°
C) 120°
D) 18°
26. The hollowness of concrete block is _____ of the volume of the concrete.
A) 10 – 20%
B) 20 – 40%
C) 40 – 80%
D) 80 – 100%
27. What is the percentage by weight of crushed gravel sand through IS sieve No. 120 ?
A) 0 – 10%
B) 5 – 30%
C) 25 – 60%
D) 45 – 85%
28. The usual length of pipes varies between
A) 1 meter to 5 meter
B) 15 meter to 30 meter
C) 2 meter to 6 meter
D) 10 meter to 22 meter
29. The pipes joined by expansion joint are made of
A) Copper
B) Cast Iron
C) Glass
D) Plastic
30. The other name for bell mouth end is
A) Clamp End
B) Golden End
C) Socket End
D) Spigot End
31. What is the temperature range of heating tools used in plastic welding process ?
A) 50°C to 100°C
B) 400°C to 470°C
C) 200°C to 370°C
D) 600°C to 670°C

32. Which is the process of water softening treatment works based on ion-exchange-process ?
- A) Zeolite process
B) Reverse osmosis process
C) Lime soda process
D) De-mineralization process
33. Which material is used to make ferrules in dual system of treated water supply ?
- A) Lead
B) Brass
C) Steel
D) Bronze
34. Nephelometer is used for determining
- A) Temperature
B) Turbidity
C) Colour
D) Acidity
35. Tri-calcium phosphate and carbon is used for removing
- A) Calcium
B) Magnesium
C) Fluoride
D) Carbon
36. The value of B-coli index for drinking water should not be more than
- A) 10
B) 20
C) 40
D) 30
37. Which plaster thickness of not more than 25 mm finished surface resemble very much as marble finish ?
- A) Lime mortar plaster
B) Rough coat plaster
C) Stucco plaster
D) Pebble dash plaster
38. Which is the grade of ordinary portland cement conforming IS 12269 ?
- A) 53 grade
B) 43 grade
C) 33 grade
D) 63 grade
39. Which one is artificial sand ?
- A) Sea sand
B) Crushing stone sand
C) River sand
D) Pit sand

49. Which water supply distribution system is suitable for towns growing irregularly ?
- A) Radial system
 - B) Tree or Dead end system
 - C) Circle or Ring system
 - D) Grid iron system
50. What is the size of concrete weep holes constructed in the infiltration galleries ?
- A) Size 3 × 10 cm
 - B) Size 7 × 10 cm
 - C) Size 5 × 10 cm
 - D) Size 10 × 10 cm
51. Which of following is a form of heat ?
- A) Energy
 - B) Force
 - C) Hardness
 - D) Power
52. According to which of the following principles does heat transmission occur ?
- A) Thermodynamics
 - B) Gravity
 - C) Inertia
 - D) Velocity
53. The increase in temperature of any element caused by energy is called
- A) Degree
 - B) Power
 - C) Heat
 - D) Calorie
54. The intensity of any element of getting hot or cold is defined by
- A) Density
 - B) Temperature
 - C) Stress
 - D) Physical changes
55. Heat transmission refers to
- A) Exchange of heat energy
 - B) Stability in temperature
 - C) Absorption of energy
 - D) All of these
56. What is the conversion of sunlight into renewable energy for water heating using a solar thermal collector ?
- A) Water heater
 - B) Solar water heater
 - C) Direct heating
 - D) Indirect heating

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57. With reference to solar heat, what does Etc mean ?
- A) Evacuated tube collector B) Extra tube collector
C) Elevated tube collector D) None of these
58. Which type of tap is used for hot and cold water pipe line in a system ?
- A) Stop cock B) 2 or 3 in mixer tap
C) One l one mixer D) Plung tap
59. Following is type of solar heater
- A) Direct gain type B) Closed loop type
C) Panel D) Cell
60. The solar system which use flat paned collector is
- A) Closed loop system B) Direct gain type
C) Both (A) and (B) D) None of these
61. The piping system which same pipe is used for the discharge of waste matter and dirty water is known as
- A) One pipe system B) Partial ventilated system
C) Single stack system D) None of these
62. The piping system in which different systems are used for the discharge of waste matter and dirty water is known as
- A) Single pipe system B) Stack system
C) Two pipe system D) All of these
63. The number of main pipes in two pipe system is
- A) 2 B) 3 C) 4 D) 5
64. For which of the following system, a separate pipe for ventilation is provided ?
- A) Single stuck system B) Partial ventilated system
C) One pipe system D) All of these

65. The main test for inspection of drainage system
- A) Smoke test
 - B) Air pressure test
 - C) Ball test
 - D) All of these
66. Other name of floor trap is
- A) Gully trap
 - B) Nahani trap
 - C) Bottle trap
 - D) Intercepting trap
67. Traps are used to prevent the passage of
- A) Air
 - B) Oxygen
 - C) Sewer gas
 - D) Wash water
68. In which type of hydrant installed at underground ?
- A) Post
 - B) Past
 - C) Flush
 - D) Surplus
69. The hydrant which is installed in an underground brick is known as
- A) Plush hydrants
 - B) Flush hydrants
 - C) Post hydrants
 - D) Surplus hydrants
70. The minimum size of a fire hydrants is
- A) 5 cm
 - B) 10 cm
 - C) 15 cm
 - D) 20 cm
71. The shock and sound produced on suddenly stopping the following water by closing the valve is known as
- A) Water hammer
 - B) Water shot
 - C) Burst sound
 - D) Water point
72. The resolution of the water hammer problem is
- A) Closure of valve slowly
 - B) Usage of air chamber
 - C) Closure of faucet slowly
 - D) All of these

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73. The scientific method meant for testing the pressure and leakage in a pipe at same time is known as
- A) Hydrostatic test
 - B) Rock well test
 - C) Sounding road test
 - D) Hardness test
74. Which test is applied in underground drains for soundness ?
- A) Water test
 - B) Sound test
 - C) Hydraulic test
 - D) Pneumatic test
75. In distribution pipes, drain valves are provided at
- A) Junctions
 - B) Summits
 - C) Lower points
 - D) Any where
76. Most common surface water supply is
- A) Sea
 - B) Pond
 - C) River
 - D) Lake
77. The distribution of water by gravity is
- A) Not reliable
 - B) Very difficult to maintain
 - C) Is easy if at height
 - D) Costly
78. Air relief valves in water supply pipelines are provided at
- A) Pipe bends
 - B) Pipe joints
 - C) Summits
 - D) Low points
79. High points air relief valves are provided to remove
- A) Accumulated air
 - B) Suspended matter
 - C) Internal temperature
 - D) Branching of connecting

80. What is the use of water meter ?
- A) To determine the unit of flow pressure
 - B) To determine the quality of water
 - C) To determine the quantity of water
 - D) To determine the quality of flow pressure
81. The pipe that drain out waste water from building and house are known as
- A) Drain pipe
 - B) Water pipe
 - C) Carbon pipe
 - D) Vent pipe
82. Drainage pipe should be
- A) Air tight
 - B) Leak proof
 - C) Such that it makes water flow at a greater speed
 - D) All of these
83. Cess pools are provided
- A) Inside the building
 - B) Away from building
 - C) In bathroom
 - D) In carriage
84. The following is not a part of drainage system
- A) Hopper
 - B) Gully
 - C) Grating
 - D) Junction
85. The layout of domestic drainage system depends upon
- A) The design of the building
 - B) Number of fixtures
 - C) Type of pipes
 - D) All of these
86. The tanks means for collecting human waste are known as
- A) Water tanks
 - B) Inspection tanks
 - C) Septic tanks
 - D) Floor tanks

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87. Inspection chamber is constructed in the drainage system for
- A) Inspection
 - B) Maintenance
 - C) Removing blockage
 - D) All of these
88. Seepage pit it also called
- A) Air chamber
 - B) Septic tank
 - C) Soak pit
 - D) Sump
89. Man holes on sewer lines are provided for
- A) Periodic cleaning
 - B) Oxidation purpose
 - C) Removal of some sewage
 - D) At bends
90. For house drainage minimum gradient is
- A) 1 in 10
 - B) 1 in 30
 - C) 1 in 60
 - D) 1 in 80
91. The shaft connecting pump and electric motors is called
- A) Connecting shaft
 - B) Joint shaft
 - C) Propeller shaft
 - D) Transmission shaft
92. The pumps that work by remaining completely or partially immersed in water are called
- A) Booster pump
 - B) Submersible pump
 - C) Impulse pump
 - D) Centrifugal pump
93. The function of booster pump is
- A) To increase the water pressure
 - B) To decrease the speed of water
 - C) To maintain the temperature of water
 - D) All of these

94. The following is a type of centrifugal pump
- A) Turbine pump
 - B) Rotary pump
 - C) High lift pump
 - D) Centrifugal pump
95. Air lift pump is installed to draw more water from the deep well the pump is operated by
- A) Acute air
 - B) Secondary electrical
 - C) Compressed air
 - D) Primary electric source
96. Which of the following containments has the characteristics of causing server public health risk through transmission of communicable water born diseases ?
- A) Pathogenic microorganism
 - B) Settleable solids
 - C) Micropollutants
 - D) Total dissolved solid
97. Water can take a from of an invisible gas called
- A) Carbon dioxide
 - B) Oxygen
 - C) Hydrogen
 - D) Water vapour
98. Flux in the soldering is used
- A) To heat the joint
 - B) To heat the solder
 - C) To avoid oxidation
 - D) None of these
99. Which type of brazing is suitable for joining copper and bronze metal tubes ?
- A) Dip brazing
 - B) Silver brazing
 - C) Furnace brazing
 - D) Inducation brazing
100. Which water supply distributions system is suitable for towns growing irregularly ?
- A) Radial system
 - B) Tree or dead and system
 - C) Circle or ring system
 - D) Grid iron system
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Space for Rough Work

