

167/2023

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. The ideal motto of every industrial organization should be :
 - (A) Self safety and safety of work
 - (B) Safety first and safety throughout
 - (C) Safety of tools and safety of machines
 - (D) Safety first and self safety

2. What is used to prevent injuries to chest, stomach or frontal portion of our body from heating, firing etc?
 - (A) Aprons
 - (B) Shield
 - (C) Seat belt
 - (D) Gloves

3. What is the full form of PPE?
 - (A) Proper Personal Equipment
 - (B) Personal Perform Equipment
 - (C) Personal Protective Equipment
 - (D) Proper Protective Equipment

4. What is the first step of avoiding accident in work place?
 - (A) By wearing safety equipment
 - (B) Doing things in one's own way
 - (C) By observing safety precautions
 - (D) Doing things with a highly skilled working practice

5. What is the period referred as 'golden hours'?
 - (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

6. Rightward welding technique is used to weld the plates of thickness :
 - (A) Above 5 mm
 - (B) Above 10 mm
 - (C) Below 5 mm
 - (D) None of these

7. In leftward welding technique blow pipe is held at an angle of :
 - (A) 20 degree to 30 degree
 - (B) 30 degree to 40 degree
 - (C) 50 degree to 60 degree
 - (D) 60 degree to 70 degree

8. Which blow pipe valve is shut off first while back fire?
(A) Acetylene (B) Carbon dioxide
(C) Oxygen (D) Nitrogen
9. What is the use of flux?
(A) For quick welding (B) To bind the solder
(C) For joining the sheets (D) To remove oxides
10. Filler material used in brazing is known as :
(A) solder (B) spelter
(C) flux (D) alloy
11. Head of soldering iron is made by :
(A) Brass (B) Copper
(C) Cast iron (D) High carbon steel
12. A small explosion of the flame during flame ignition in gas welding is known as :
(A) Back fire (B) Shut off fire
(C) Flash back (D) Flash fire
13. Which valve is shut off first while extinguishing the flame?
(A) Oxygen (B) Nitrogen
(C) Carbon dioxide (D) Acetylene
14. What is the colour of oxygen cylinder?
(A) Black (B) Brown
(C) Red (D) Maroon
15. Gloves used while welding is made of :
(A) Leather (B) Asbestos
(C) Rubber (D) Plastic
16. What is the maximum compressive strength of third class bricks?
(A) 35 kg/cm² (B) 40 kg/cm²
(C) 45 kg/cm² (D) 50 kg/cm²
17. Refractory bricks are also known as :
(A) Hollow bricks (B) Fire bricks
(C) Perforated bricks (D) Country burnt bricks

18. Brick used at the corner of two walls is called :
- (A) Bat (B) King closer
(C) Queen closer (D) Quoin
19. Vertical sides of door or window opening is called :
- (A) Reveal (B) Sill
(C) Jambs (D) Lintel
20. Bonding in brick work is essential to eliminate continuous :
- (A) Horizontal joint (B) Diagonal joint
(C) Alternate joint (D) Vertical joint
21. Independent scaffolding is also known as :
- (A) Mason's scaffolding (B) Wooden scaffolding
(C) Brick layer's scaffolding (D) None of these
22. Which scaffolding is generally used for repairing and for adding further stories in existing building?
- (A) Needle scaffolding (B) Suspended scaffolding
(C) Wooden scaffolding (D) Ladder scaffolding
23. The interior and exterior finishing of masonry structure is known as :
- (A) Pointing (B) Plastering
(C) Painting (D) Dadoing
24. Machines employed for compacting concrete is known as :
- (A) Drilling machine (B) Mixer machine
(C) Grinder (D) Vibrator
25. The process of keeping the concrete damp is known as :
- (A) Curing (B) Mixing
(C) Dumping (D) Pouring
26. The most common material used as reinforcement is :
- (A) wood (B) steel
(C) rubber (D) bamboo
27. The inert material in concrete is :
- (A) Aggregate (B) Cement
(C) Water (D) All of these

28. In concrete structure reinforcement is used to take :
(A) Shear (B) Tension
(C) Elongation (D) Compression
29. In the proportion of cement concrete 1:2:4, 2 stands for :
(A) steel (B) cement
(C) sand (D) metal
30. All joints in the masonry work should be raked out to a depth of :
(A) 5 mm (B) 10 mm
(C) 20 mm (D) 30 mm
31. Joint mostly used for temporary pipe lines :
(A) Flexible joint (B) Expansion joint
(C) Flanged joint (D) Universal joint
32. Joint mostly used for small diameter cast iron, wrought iron and galvanized iron pipes :
(A) Socket and spigot joint (B) Flexible joint
(C) Collar joint (D) Screwed joint
33. PVC pipes are specified by its :
(A) Inside diameter (B) Outside diameter
(C) Average diameter (D) Bore diameter
34. Which fitting is used to close the end of a pipe having a male thread?
(A) Socket (B) Spigot
(C) Plug (D) Cap
35. Which fitting is used for the off take of service connections from larger bore pipes?
(A) Tee (B) Ferrule
(C) Saddle (D) Reducer
36. The female part of a socket and spigot joint :
(A) Gasket (B) Thread
(C) Spigot (D) Socket
37. A projecting flat rim on the end of a valve is known as :
(A) Flush (B) Flange
(C) Fissure (D) Socket

38. Fitting provided at the end of a ventilation pipe is called :
- (A) Cowl (B) Cap
(C) Net (D) Grating
39. What is the length of PVC pipe?
- (A) 3 m (B) 5 m
(C) 6 m (D) All of these
40. Fitting used to connect one length to another for continuation of the pipe line :
- (A) Tee (B) Socket
(C) Ferrule (D) Cross
41. Tunnel used for tapping underground water near river, lake are called :
- (A) Infiltration gallery (B) Infiltration well
(C) Reservoir (D) Dam
42. What is the method of constructing tube wells in hard rock?
- (A) Rotary drilling (B) Percussion drilling
(C) Boring (D) Piling
43. Base exchange process is also known as :
- (A) Disinfection (B) Reverse Osmosis
(C) Lime soda process (D) Zeolite process
44. Permanent hardness is also known as :
- (A) Carbonate hardness (B) Calcium carbonate hardness
(C) Chloride hardness (D) Non carbonate hardness
45. Filter which cannot remove pathogenic bacteria is called :
- (A) Rapid sand filter (B) Pressure filter
(C) Slow sand filter (D) Medium sand filter
46. Pressure filters are used on :
- (A) Small industrial plants
(B) Large industrial plants
(C) Sewage treatment plants
(D) Water purification plants

47. What is the colour of naturally available zeolite?
(A) Red (B) Green
(C) Yellow (D) Blue
48. The force required to ensure the desired flow of water is called :
(A) Cavitation (B) Specific gravity
(C) Capillarity (D) Water pressure
49. Air valves are provided at :
(A) Dead ends (B) Summits
(C) Junctions (D) Lower level
50. Sudden stoppage of the water flowing at a given pressure causes :
(A) Water hammer (B) Water cavity
(C) Water arrester (D) Water gravity
51. Which material is used to joint CI pipe vertical joint?
(A) Lead wool (B) Solder
(C) Cement (D) Copper
52. Zinc is commonly used for coating a steel pipe to :
(A) Prevent scaling (B) Prevent corrosion
(C) Prevent vibration (D) Get flexibility
53. What is the melting point of Brass?
(A) 1005° C (B) 327° C
(C) 1540° C (D) 983° C
54. Which is the following sentence is matching to intermittent system?
(A) Water is supplied to continuous throughout the day
(B) Water is supplied during fixed hours in a day
(C) Water is supplied by pressure system
(D) Water is supplied by gravitation force

55. Which is the following sentence is matching to Ring system?
1. Each locality of town is divided into square or circular blocks.
 2. All ends are dead.
 3. Not suitable for planned roads.
 4. At the sub main and branches are interconnected.
- (A) 1 and 2 (B) 1 and 3
(C) 1 and 4 (D) 2 and 3
56. Ferrule is made out of :
- (A) Brass and Copper (B) Brass and steel
(C) Brass and Gun metal (D) Brass and Lead
57. Which pump have two suction and two delivery valves are provided in the same cylinder and water is delivered in every stroke and flow continuously?
- (A) Rotary Pump (B) Air lift Pump
(C) Double acting reciprocating Pump (D) Jet Pump
58. Which pump consists of more than one impeller?
- (A) Stage pump (B) Double acting Reciprocating pump
(C) Turbine pump (D) Rotary pump
59. When ——— works water flows through the casing, the kinetic energy of water is converted to pressure energy before the water leaves casing?
- (A) Centrifugal pump (B) Air lift pump
(C) Rotary pump (D) Hand pump
60. What is the fitted in the lower end of the suction pipe of a Centrifugal pump?
- (A) Jet (B) Ball Valve
(C) Foot Valve (D) Suction pipe
61. What is the height difference between centre of inlet pipe and centre of outlet pipe of septic tank?
- (A) 10 cm to 15 cm (B) 15 cm to 20 cm
(C) 5 cm to 7 cm (D) 5 cm to 10 cm

62. Why 30 cm to 45 cm free board provides above liquid level of Septic tank?
- (A) Helps flowing (B) Accommodate scum and gases
(C) Providing vent stack (D) Storing excessive Effluence
63. An elbow pipe usually T pipe submerged to a depth of _____ below the liquid level is provided as inlet pipe :
- (A) 15 – 25 cm (B) 5 – 10 cm
(C) 10 – 15 cm (D) 5 – 25 cm
64. What is the normal size of ventilation pipe of Septic tank?
- (A) 30 mm (B) 50 mm
(C) 75 mm (D) 100 mm
65. A circular shaped pit filled with brick bat, coarse aggregates etc.... for collecting waste water from septic tank is known as :
- (A) Leach pit (B) Cesspool
(C) Manhole (D) Soak pit
66. Select the suitable sentence related with septic tank :
- (A) Septic tank is a temporary system for waste disposal
(B) Air or Oxygen are allowed into septic tank
(C) The length of septic tank should be 2 to 4 times the width
(D) The centre of outlet pipe above the centre of inlet pipe
67. Soak pit is also known as :
- (A) Dispersion pit (B) Seepage pit
(C) Cesspool (D) Leaching pit
68. The minimum internal dimension of the access shaft of Manhole is :
- (A) 50 cm × 50 cm (B) 20 cm × 20 cm
(C) 50 cm × 30 cm (D) 100 cm × 100 cm
69. Weight of manhole cover provided at heavy traffic road is :
- (A) 135 kg (B) 155 kg
(C) 120 kg (D) 255 kg

70. An access for testing and cleaning of drain is :
- (A) Inspection Chamber (B) Gully chamber
(C) Drop Manhole (D) Access hole
71. Defect is : Water flows from the over flow pipe of the Flushing Cistern.
Causes is :
- (A) Position of the float valve is not correct
(B) Valve nut is over tight
(C) The float has broken or slip down
(D) Valve nut loose
72. A valve provided an unobstructed water way when fully open and it is very suitable for large piping system :
- (A) Globe valve (B) Butterfly valve
(C) Gate valve (D) Plug valve
73. Weight of chromium plated pillar tap of 15 mm size is :
- (A) 575 gm (B) 600 gm
(C) 625 gm (D) 650 gm
74. The following is/are used to magnify the hissing noise of leaks from water supply line :
- (A) Osmoscope (B) Acquaphone
(C) Tintometer (D) Manometer
75. If the tap leaks drop by drop the loss of water is about _____ liter / month.
- (A) 3000 (B) 3600
(C) 2500 (D) 3800
76. Manometer is used to :
- (A) Prevent water hammer (B) Measure the pressure
(C) Measure leaks (D) Measure water
77. The installation and maintenance of domestic water meter is governed by :
- (A) IS : 2004 (B) IS : 2001
(C) IS : 2556 (D) IS : 2401

78. Size 2 water meters nominal size of :
- (A) 15 and 20 mm (B) 20 and 25 mm
(C) 25 and 32 mm (D) 40 and 50 mm
79. The sluice valve generally placed at the distance of about ————— interval.
- (A) 100 m to 150 m (B) 100 m to 200 m
(C) 150 m to 250 m (D) 300 to 500 m
80. What is the reason of defect of the Bib tap spindle continuously slipping when tap is turned and does not shut off?
- (A) Spindle thread worn out (B) Check nut loose
(C) Defective seating (D) Gland nut loose
81. The efficiency and effectiveness of trap will depend upon the :
- (A) Size (B) Water level
(C) Depth of water seal (D) Material
82. Minimum depth of water seal of Gully trap is :
- (A) 25 mm (B) 30 mm
(C) 50 mm (D) 75 mm
83. Intercepting trap provided at :
- (A) Corner of drain
(B) Every 30-meter straight
(C) Near Gully trap
(D) Junction of house drain and sewer
84. The system of sanitary plumbing ————— have two set of vertical pipes are laid, one for night soil one for sullage and have provide vent pipe separately.
- (A) One pipe system
(B) Two pipe system
(C) Single stack system
(D) Partially ventilated single stack system
85. S L means in sanitary plumbing :
- (A) Sewer Line (B) Sanitary Link
(C) Street Line (D) None of these

86. Which is provided for admitting air to the drain for balance the pressure and prevent siphonage of water?
- (A) Pressure Relief Valve (B) Lamp hole
(C) Air Admittance Valve (D) Gully Trap
87. The testing pressure on completion of the works shall not be less than _____ time the working pressure of the pipe.
- (A) 1.5 (B) 2
(C) 2.5 (D) 3
88. MSP means :
- (A) Main Stack pipe (B) Main Sewage Pipe
(C) Main Shaft Pipe (D) Main Soil Pipe
89. The diameter of main ventilation pipe should be not less than :
- (A) 35 mm (B) 40 mm
(C) 50 mm (D) 75 mm
90. Post Fire Hydrant projected about _____ above the ground surface.
- (A) 60 – 90 cm (B) 50 – 60 cm
(C) 40 – 60 cm (D) 50 – 90 cm
91. The height of front edge of Kitchen Sink from the floor level shall be :
- (A) 70 cm (B) 100 cm
(C) 80 cm (D) 20 cm
92. Hot water taps are generally identified with _____ on top of the tap.
- (A) Red spot (B) Blue spot
(C) Arrow mark (D) Yellow mark
93. What is the two main categories of Boilers?
- (A) Electric boiler and Gas boiler
(B) Fire tube boiler and Water tube boiler
(C) Solar boiler and Electric boiler
(D) Biomass boiler and Fire tube boiler

94. What is used in Water Heater to control temperature of water and prevent over heating?
- (A) Dead weight valve (B) Check valve
(C) Inner container (D) Thermostat
95. Specific heat of Aluminium is :
- (A) 1 (B) 0.1
(C) 0.12 (D) 0.22
96. BTU means :
- (A) British Thermal Unit (B) British Thread Unit
(C) Basic Thermal Unit (D) British Heat Unit
97. What is provided to sewer line for fresh air to inside and escaping poisonous gases to outside?
- (A) Inspection chamber (B) Ventilating Shaft
(C) Drop Manhole (D) Inlets
98. _____ is the name given to the transmission of heat energy by contact.
- (A) Convection (B) Radiation
(C) Conduction (D) Induction
99. In Solar Water Heating system the hot water naturally rises in to the tank through _____ flow.
- (A) Vacuum (B) Thermosiphon
(C) Siphon (D) Gravity
100. A thermally insulated hot water storage tank is mounted _____ the collector of Solar Water Heating system.
- (A) Above (B) Below
(C) Parallel (D) Horizontally

SPACE FOR ROUGH WORK

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