



SAMPLE TEST QUESTIONS INSULATOR - ITA WEBSITE

- 1 Fibreglass vapour seal insulation is available in sheets 24 in. x 48 in. x 2 in., with 5 sheets per bundle. How many bundles of insulation are required to cover an area 80 ft. long by 22 ft. wide?
 - A. 19
 - B. 22
 - C. 38
 - D. 44

- 2 What is the surface area of a 30 in. square x 10 ft. long duct?
 - A. 75 sq. ft.
 - B. 90 sq. ft.
 - C. 100 sq. ft.
 - D. 105 sq. ft.

- 3 How many square feet of 1-in. flexible insulation is required to cover a 12 in. x 24 in. x 12 ft. supply duct including a 3-in. lap?
 - A. 39 sq. ft.
 - B. 42 sq. ft.
 - C. 74 sq. ft.
 - D. 83 sq. ft.

- 4 Which safety precaution is taken before entering an open 2 m (6 ft.) trench?
 - A. Have a safety spotter.
 - B. Check for work permit.
 - C. Check shoring/back slope.
 - D. Ensure equipment is grounded.



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- 5 Which material should **not** be used to insulate a high temperature steam line?
- A. Mineral wool.
 - B. Calcium silicate.
 - C. Extruded foam plastic.
 - D. Cellular glass (foam glass).
- 6 Which insulation should be used in a 1 100°F high temperature steam line?
- A. Fibreglass.
 - B. Cellular foam.
 - C. Calcium silicate.
 - D. Beaded plastics.
- 7 Which insulation and finish are used for an exposed rainwater leader?
- A. 1-in. fibreglass pipe insulation with ASJ jacketing with butt laps installed and finished with 6 oz. canvas.
 - B. 1-in. flexible RFFRK wrap insulation sealed with tape and finished with 6-oz. canvas.
 - C. 1-in. fibreglass pipe insulation with ASJ jacketing finished with 0.016 aluminum jacketing and secured with screws.
 - D. 1-in. elastomeric insulation finished with PVC jacketing and secured with tacks.
- 8 Which size of pipe covering is applied to insulate a 12-in. O.D. pipe with two single 1/2-in. steam tracers?
- A. 11 in.
 - B. 12 in.
 - C. 13 in.
 - D. 14 in.



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- 9 Which type of sealant is applied over an insulated elbow covered with a glass fab membrane?
- A. Mastic.
 - B. Primer.
 - C. One coat.
 - D. Finishing cement.
- 10 What are the first three steps when starting the layout for metal jacketing on an elliptical tank head?
- A. Draw width, length and circumference.
 - B. Draw diameter, true height and circumference.
 - C. Draw width, length, and divide into equal parts.
 - D. Draw radius, true height, and divide into equal parts.
- 11 An insulated tower reduces from a 6-ft. diameter to a 2-ft. diameter. The tapered part is to be covered with four pieces of aluminium of equal size. Allowing for the standard 3-in. lap, what are the correct measurements?
- A. 54 in. and 16 in.
 - B. 57 in. and 19 in.
 - C. 60 in. and 22 in.
 - D. 63 in. and 25 in.
- 12 When is an S-clip installed on a large vertical vessel?
- A. To fasten bands and springs.
 - B. To support bands and cladding
 - C. To fasten insulation and cladding.
 - D. To support foamglass and banding.



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- 13 Which system is used to fabricate a removable flexible flange cover for a moderate temperature application?
- A. Elastomeric rubber and glue.
 - B. Fiberglass blanket and canvas.
 - C. Calcium silicate and aluminium.
 - D. Ceramic fibre blanket and vinyl covering.
- 14 Which insulation and installation method are used for a domestic cold water system in a concealed application?
- A. 1-in. elastomeric foam, glued in place with non-contact adhesive.
 - B. 1-in. fibreglass with ASJ, installed with self-seal laps and foil tape.
 - C. 1-in. fibreglass with ASJ, installed with all butt joints.
 - D. 1/2-in. mineral fibre with ASJ, installed with all butt joints.
- 15 Which fastening system is used to secure insulation on refrigeration piping?
- A. Pittwrap, mastic, and staples.
 - B. Glass fab, staples, and lagging.
 - C. Fibre tape, mastic, and wood skewers.
 - D. Glass fab, mastic, steel bands, and Pittwrap.
- 16 Which system requires a completely sealed vapour barrier?
- A. Chilled water lines.
 - B. 140-lb. steam lines.
 - C. Hot water heating lines.
 - D. Domestic hot water lines.



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- 17 What is the procedure to apply sealer when installing urethane on a chilled-water converter?
- A. Use non-contact sealer, butter all joints and fasten seams with filament tape.
 - B. Use non-setting sealer, butter all joints and fasten seams with filament tape.
 - C. Use contact sealer, butter all joints and fasten seams with wire.
 - D. Contact sealer, butter all butt joints and fasten seams with galvanized banding and clips.
- 18 What is the procedure followed when installing insulation on a 90° long radius elbow on a low pressure steam line, which will be finished with a PVC jacketing?
- A. Pre-cut urethane mitres and secure with stainless steel wire.
 - B. Install an insert cut from ceramic fibre block and tie in place with fibre tape.
 - C. Install 2 layers of fibreglass blanket and maintain continuous vapour barrier.
 - D. Pre-cut mitres with same insulation and thickness as materials and fasten with stainless steel wire.
- 19 A 20-ft. diameter storage tank has a temperature range of 250°C to 750°C. What is the correct finishing procedure?
- A. 016 corrugated aluminium fastened with springs and bands.
 - B. 020 corrugated aluminium fastened with screws, springs and bands.
 - C. 016 smooth aluminium fastened with springs, bands and rivets.
 - D. 020 smooth aluminium fastened with bands and rivets.
- 20 What size of 4-oz. canvas is required to cover a 4 in. x 1 in. iron pipe 90° elbow?
- A. 16 in. x 16 in.
 - B. 20 in. x 20 in.
 - C. 22 in. x 22 in.
 - D. 24 in. x 24 in.



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- 21 Which fastener is used to apply a PVC finish on an exposed rainwater leader?
- A. Tacks.
 - B. Rivets.
 - C. Contact adhesive.
 - D. Welding adhesive.
- 22 A rectangular plenum duct 24 in. × 18 in. requires 1 in. of insulation plus canvas. What is the length of each piece of canvas if 6 in. is required for shrinkage and lap?
- A. 94 in.
 - B. 96 in.
 - C. 98 in.
 - D. 100 in.
- 23 Which type of fastening device is used to attach acoustic panels to a concrete ceiling?
- A. Cupped pins.
 - B. 1/2-in. banding.
 - C. Self-adhering pins.
 - D. Perforated base anchors.
- 24 Where is a negative air fan for an enclosed asbestos work site located?
- A. Close to the entry outside the work area.
 - B. Far from the entry outside the work area.
 - C. Close to the entry inside the work area.
 - D. Far from the entry inside the work area.



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- 25 What is the procedure when preparing material and equipment for mineral fibre spray?
- A. Protect material from elements and clean equipment.
 - B. Mix material, flush hoses with water and oil all moving parts.
 - C. Keep material and hose cool and keep spray gun well lubricated.
 - D. Keep material away from sunlight and flush hoses with solvent.
- 26 What must be adjusted to achieve the required thickness when spraying urethane insulation?
- A. Pump pressure.
 - B. Opening of the nozzle.
 - C. Consistency of the mixture.
 - D. Rate of application to substrate.
- 27 Which procedure is used to prepare a sprayed mineral fibre substrate for sealer application?
- A. Spray substrate with adhesive.
 - B. Level off substrate with a straight edge.
 - C. Apply clips over insulation and tamp substrate.
 - D. Clean and remove loose debris from substrate.
- 28 What must be done with the nozzle when storing polyurethane spray equipment?
- A. Left in place.
 - B. Covered with tape.
 - C. Replaced with a new nozzle.
 - D. Lubricated with petroleum jelly.



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- 29 Which drawings in a set of blueprints are referenced in order to determine which rooms have to be fire-stopped?
- A. Electrical and site.
 - B. Structural and electrical.
 - C. Structural and mechanical.
 - D. Architectural and mechanical.
- 30 Which type of penetration requires a fire-stop system using intumescent wrap strips in combination with an RC collar?
- A. Iron pipe.
 - B. Glass pipe.
 - C. Electrical tray.
 - D. Copper pipe.