

## Key to examination sheet

### SECTION 1:

- 1) What is the grade of the supplied air for hood and respirators during abrasive blasting?
  - a) A
  - b) B
  - c) C
  - d) D
  
- 2) Who is allowed to perform abrasive blasting?
  - a) All Saudi Aramco employees and Contractor
  - b) All Saudi Aramco employees and Contractor with 3<sup>rd</sup> party certification
  - c) All Saudi Aramco certified employees and Contractor
  - d) Contractor abrasive blasters
  
- 3) Flammable materials storage areas cannot be located within \_\_\_\_\_ of other buildings or Structures:
  - a) 25 ft
  - b) 50 ft
  - c) 50 meters
  - d) 100 ft
  
- 4) Keep stored O2 cylinders separated from fuel gas cylinders by \_\_\_ or by a \_\_\_ high noncombustible barrier.
  - a) 20ft, 10ft
  - b) 15ft, 5ft
  - c) 20ft, 5ft
  - d) 10ft, 5ft
  
- 5) At what concentration of H2S will loss of consciousness and death occur within minutes?
  - a) 100 ppm
  - b) 250 ppm
  - c) 500 ppm
  - d) 1000 ppm
  
- 6) If someone is injured on your job site, a preliminary written report must be submitted to the Saudi Aramco PMT within \_\_\_\_\_ period of time and final report within \_\_\_\_\_:
  - a) 2 hours, 48 hours
  - b) 24 hours, 72 hours
  - c) 8 hours, 72 hours
  - d) 1 hour, 48 hours
  
- 7) Guardrail systems shall be able to withstand, without failure a force of at least \_\_\_\_\_ lbs. applied in any downward or horizontal direction at any point on the top rail or equivalent member.
  - a) 200
  - b) 300

- c) 400
  - d) 500
- 8) What is the minimum concentration of H<sub>2</sub>S that is considered immediately dangerous to life and Health (IDLH)
- a) 10 ppm
  - b) 50 ppm
  - c) 100 ppm
  - d) 500 ppm
- 9) The maximum working pressure on an acetylene gauge is \_\_\_\_\_ psig.
- a) 7
  - b) 10
  - c) 15
  - d) 20
- 10) Which is the correct procedure to de-energize an electric circuit?
- a) Lock, tag, clear and try.
  - b) Lock, tag, try and clear.
  - c) Tag, lock, clear and try.
  - d) None of the above.
- 11) What is the maximum voltage of a portable electric tool?
- a) 110 V
  - b) 115 V
  - c) 125 V
  - d) 220 V
- 12) Crane operation shall be stopped at wind speed above \_\_\_\_\_ km/h.
- a) 24
  - b) 28
  - c) 32
  - d) 36
- 13) The contractor shall provide one toilet for every \_\_\_\_\_ worker.
- a) 15
  - b) 20
  - c) 35
  - d) 50
- 14) When there are openings in roof work and/or at edges of roofs, and a fall hazard exist, barricades must be installed capable of withstanding a force of:
- a) 100 lbs (45.4 kg)
  - b) 150 lbs (68 kg)
  - c) 200 lbs (91 kg)
  - d) 125 lbs (56.7 kg)

- 15) The Saudi Aramco Sanitary Code states that:
- Eating is allowed on the worksite.
  - You shall provide one toilet for every 50 workers.
  - You shall provide drinking water and a dipper.
  - None of the above.
- 16) Which answer is incorrect; Contractor Safety Officer shall:
- Advise on ways to prevent injury to personnel, damage to property and fires.
  - Be the only person responsible for all health and safety at the worksite.
  - Look at ways to improve existing work methods.
  - Advise their management on changes in Safety requirements.
- 17) Handling and storage of flammable materials include:
- Any metal container holding flammable liquid must be FM (or UL) labeled.
  - Transfer operation should be carried out with funnels and there should be on open flames within 6 meters (20 feet) of the operation unless conditions warrant greater clearance.
  - Transportation must always be in (closed) plastic containers.
  - None of the above.
- 18) How long is a Work Permit usually valid?
- 1 month
  - 1 week
  - 1 shift
  - 1 day
- 19) Fire extinguisher type B is used specifically for:
- Wood, paper and fiber materials.
  - Electrical fires.
  - Oil, solvents, paint, plastic and synthetic materials.
  - None of the above.
- 20) When transferring an extremely flammable liquid from a 55 gallon drum via a hand pump to a small metal safety can, which of the following provides the best protection?
- Ground both containers.
  - Bond both containers together.
  - Bond containers together and ground each to separate ground.
  - Ground one container and then bond them to other.
- 21) In order to use stepladders safety
- Two men should be on ladder at the same time to balance the ladder.
  - Never stand on the top step.
  - Stepladder should be used to gain access to roofs or other elevated surfaces.
  - Lean it against the wall for support.
  - All of the above.

- 22) What should people look for when inspecting hand tools before use?
- a) Check the load rating.
  - b) Missing or broken parts.
  - c) Electric rating.
  - d) Load rating.
- 23) Which of the following is true concerning explosive proof equipment? Explosive proof equipment is allowed to operate in a flammable or explosive atmosphere because it is capable of:
- a) The explosion if it happens will stay inside the container.
  - b) Not producing sparks under any condition.
  - c) Operating below the auto ignition temperature.
  - d) Shutting down the equipment serviced in an emergency.
- 24) How long should the appointed "Fire Watch" remain at the site of HOT work after the work has stopped?
- a) 10 minutes
  - b) 15 minutes
  - c) 20 minutes
  - d) 30 minutes
- 25) The following lifts is/are considered as critical:
- a) Multiple or trailing lifts.
  - b) Night time crane lifts.
  - c) Crane suspended personnel platforms (man baskets).
  - d) All of the above.
  - e) A & C only.
- 26) Cranes shall be inspected by the crane operator \_\_\_\_\_.
- a) Daily.
  - b) Monthly.
  - c) Prior to each shift.
  - d) Noon of the above.
- 27) When lifting over or adjacent to process piping, etc., what is required?
- a) Hold Tag.
  - b) Welding Machine.
  - c) Rigger 3.
  - d) Hot Work Permit.
  - e) All of the above.
- 28) What is used to control suspended loads?
- a) Slings.
  - b) Guys.
  - c) Tag Lines.
  - d) Shackles.

e) All of the above.

29) Identify two things that must be done to make sure hand tools do not cause injury.

- a) Properly ground and bond them.
- b) Inspect them and use them safely.
- c) Check the Saudi Aramco approval.
- d) Check the certification and sticker.

30) Identify the hazard associated with hydro-testing.

- a) Toxic exposure from the water used during testing.
- b) Unexpected failure of the equipment under test.
- c) Release of hydrogen sulfide or hydrogen.
- d) Corrosive action of hydrogen on human skin.

31) Identify two things that should be done before using portable electrical equipment in damp or wet locations.

- a) Install grounding clamps and discharge electricity.
- b) Discharge electricity and inspect the equipment.
- c) Inspect the equipment and use GFCI.
- d) Tape all insulated wires and use GFCI.

32) The top edge height of top rails shall not be less than \_\_\_\_\_ and not more than \_\_\_\_\_ above the walking / working surfaces of a platform.

- a) 0.95 m (38 in) / 1.27 m (50 in)
- b) 0.89 m (35 in) / 1.15 m (45 in)
- c) 0.95 m (38 in) / 1.15 m (45 in)
- d) 1.016 m (40 in) / 1.27 m (50 in)

33) What is the purpose of a hold tag?

- a) To isolate or de-energize equipment.
- b) To work the job safety.
- c) To explain the reason why the equipment is being locked out.
- d) All of the above.

34) Crane boom shall be kept \_\_\_\_\_ feet from overhead power lines up to 50,00 volts and \_\_\_\_\_ feet over 250,000 volts.

- a) 10;20
- b) 15;20
- c) 10;25
- d) 15;25

35) You need to inform the operator of heavy equipment to stop work. The operator is in the cab operation the equipment and is wearing ear defenders. What should you do before approaching?

- a) Shout loudly to the signal man.
- b) Establish eye contact with the signal man.
- c) Establish eye contact with the operator.

- d) Shout loudly to the operator.
- 36) In order to store cylinders:
- a) They should be stored in a safe, dry well ventilated place and secured.
  - b) Flammable substances should not be stored in the same area.
  - c) They should not be stored near a source of heat.
  - d) All off the above.
- 37) Compressed gas cylinder requirements include:
- a) Don't use cylinders that have dents, rust, gouges or burn marks.
  - b) Mark empty cylinders as "MT".
  - c) Remove from service any compressed gas cylinders in violation of the regulations.
  - d) All of the above.
- 38) A ladder shall extend \_\_\_\_\_ above the upper point of contact.
- a) 1 meter (3 ft)
  - b) 3 meters (10 ft)
  - c) 4 rungs
  - d) 12 inches
- 39) Portable electric tools must be:
- a) Insulated or double grounded.
  - b) Single insulated or bonded.
  - c) Double insulated or grounded.
  - d) Double grounded or de-energized.
- 40) A confined space must not be entered without wearing supplied-air respirators if the oxygen level is below:
- a) 21 %
  - b) 18 %
  - c) 25 %
  - d) 19.5 %
- 41) During which of the following activities should you wear a personal floatation device?
- a) When boarding a boat.
  - b) When on an offshore rig.
  - c) When disembarking from a barge.
  - d) All of the above.
  - e) A and C only.
- 42) What must you ensure when boarding a vessel from a pier?
- a) You have a work permit.
  - b) You have your luggage.
  - c) Winds are less than 20 knots.
  - d) You have a safe access.

- 43) When performing crane operations on a vessel, what can affect control of crane loads?
- a) Passing vessels.
  - b) Drilling operations.
  - c) Wave Action.
  - d) All of the above.
  - e) A and C only.
- 44) Who is responsible for all safety onboard a marine vessel or barge?
- a) Site PMT.
  - b) Construction Manager.
  - c) Captain/Master.
  - d) Safety Officer.
- 45) Why should you be aware of mooring ropes and wires?
- a) Many ropes and wires are slack and can cause serious injury.
  - b) Many ropes and wires are at neck level and can present a choking hazard.
  - c) Many ropes and wires are under tension and can cause serious injury.
  - d) Many ropes and wires are at ankle level and can cause you to trip and fall.
- 46) Personnel basket shall not be permitted to transfer personnel when the wind speed exceeds \_\_\_\_\_ or in rough weather.
- a) 28 km/h (21 knots)
  - b) 50 km/h (28 knots)
  - c) 13 km/s (7 knots)
  - d) 25 km/h (14 knots)
- 47) What is the first thing you should do if a person falls in the water?
- a) Inform the Captain/Maser.
  - b) Shout "Man Overboard".
  - c) Follow the directions of the Captain/Master.
  - d) Throw a floatation device in the water.
- 48) How is transfer from boat to boat landing done safely?
- a) Grab the knotted rope when the boat is at the BOTTOM of a swell; swing to the platform; PUSH off the boat with your feet.
  - b) Grab the knotted rope when the boat is at the TOP of a swell; swing to the platform; PUSH off with your feet.
  - c) Grab the knotted rope when the boat is in BETWEEN swells, swing to the platform; PUSH off the boat with your feet.
  - d) Grab the knotted rope when the boat is on top of the swell; swing to the platform using GRAVITY to pull you to the landing.
- 49) How should you stand on a moving personnel basket?
- a) Lean forward, both feet on the basket rim, hold with both hands.
  - b) Stand straight, both feet on the basket rim, hold with both hands.

- c) Lean backward, both feet on the basket rim, hold with both hands.
- d) Stand straight, one foot on the basket rim, hold with both hands.

50) When can you transfer from a boat to a boat landing (or vice versa) using the swing rope technique?

- a) If you have both hand free.
- b) During an emergency drill.
- c) When the winds are light.
- d) After you have received the training.

## **SECTION 2**

1. Personnel working on, over or near water shall wear approved Personal Floatation Device (PFD)'s per GI 6.020, unless prevented from falling into the water by a fall protection system
  - a) True
  - b) False
2. Portable power tools being operated from an onsite generator need not be protected by a GFCI (ground fault circuit interrupter) to be consistent with the Saudi Aramco CSM.
  - a) True
  - b) False
3. The new heavy plastic 5 gallon drums may be used to store, transport, and dispense diesel fuel only.
  - a) True
  - b) False
4. Cigarette smoking is forbidden anywhere on Saudi Aramco Construction sites except in designated and approved smoking shelters.
  - a) True
  - b) False
5. The work permit should be revised if there is any change in the condition.
  - a) True
  - b) False
6. If a tool breaks it is permissible to weld a piece of pipe as a handle temporarily
  - a) True
  - b) False
7. Soap and paper towels must be provided for the men to clean up before meals.
  - a) True
  - b) False
8. Slings shall be tagged with a safe Working Load (SWL) in the field.
  - a) True
  - b) False



9. Personnel basket transfers shall not be conducted when the wind speed exceeds 25 km/h (15 mph, 14 knots) or in rough weather.
- a) True
  - b) False
10. A fire extinguisher must be placed near (5 to 15 feet) to any combustion engine being operated on site.
- a) True
  - b) False
11. Hand held power tools such as drills and grinders may be locked-on if the job is going to take a long period of time to accomplish.
- a) True
  - b) False
12. Damaged welding cables can be properly spliced by a competent electrician.
- a) True
  - b) False
13. Scaffold planks must be at least 2" thick by 9" wide or up to 2" thick by 12" wide.
- a) True
  - b) False
14. Scaffold planks must be tied to or otherwise secured to the scaffold bearers.
- a) True
  - b) False
15. A safety Officer must tour the site several times a day because condition is changing constantly during construction activities.
- a) True
  - b) False
16. A weekly Safety Inspection of each area should be carried out and a report of defects given to those responsible for correcting them.
- a) True
  - b) False
17. A Safety Officer checks all construction activities only. The personnel officer checks the medical facilities, toilet facilities, drinking water and all things affecting health and welfare.
- a) True
  - b) False
18. It is okay to bring chemicals on site without a MSDS if you only have 20 liters of liquid or 10 cubic meters of a toxic gas.
- a) True
  - b) False

19. Crane operation must be stopped when the wind speed is over 10 mph?  
a) True  
b) False
20. All Accident must be reported to Saudi Aramco within 48 hours?  
a) True  
b) False
21. Before use, all new lifting equipment should be subjected to a proof load test by competent Rigger.  
a) True  
b) False
22. A N95 respirator can be used during spray painting.  
a) True  
b) False
23. Personnel shall not be on any scaffold or other temporary elevated work area during sustained winds more than 65 kph (40 mph)  
a) True  
b) False
24. Climbing of scaffold braces, runners, etc., is not permitted, except as required by a scaffold craftsmen during scaffold erection, alteration and dismantling.  
a) True  
b) False
25. Ladder should be positioned at an angle where the horizontal distance from the top support to the foot of the ladder is  $\frac{1}{4}$  the working length of the ladder or 75 degrees angle.  
a) True  
b) False
26. Use GFCI's on all 120-volt, single-phase, 15 and 20 ampere receptacles, or have an assured equipment grounding conductor program.  
a) True  
b) False
27. Only UL, FM or other recognized testing lab approved extension cords bearing appropriate lab trademarks shall be used.  
a) True  
b) False
28. Eye and face protection devices shall meet ANSI Z87.1 requirements.  
a) True  
b) False

29. Hard hats shall be replaced not more than 5 years from the date of manufacture stamped/printed/embossed on the inside of the shell.
- a) True
  - b) False
30. Forklift operators shall travel in reverse when the load obstructs the operator's forward view.
- a) True
  - b) False
31. Outdoor storage of flammable and combustible materials shall not be within 3 meters (10 ft) of a building or structure.
- a) True
  - b) False
32. Screw-type (Jubilee) hose clamps can be used to secure compressed air hoses to fittings/couplers.
- a) True
  - b) False
33. Portable electric power tools shall be certified by an independent testing and certification services such as Underwriters' Laboratories (UL), Factory Mutual (FM) or Conformite Europeene (CE) and shall bear the appropriate certifying agency mark.
- a) True
  - b) False
34. Job-made extension cords shall be fabricated by a certified electrician and shall meet the requirements in Section 11.7.15 (A) through 11.7.15(H) of the Construction Safety Manual (5<sup>th</sup> edition).
- a) True
  - b) False
35. Personnel shall not be on any scaffold or other temporary elevated work area during storms or high winds (i.e., sustained winds more than 65kph).
- a) True
  - b) False
36. Mobile and tower scaffolds shall be plumb, level and square, and shall be horizontally and vertically braced in both directions by diagonal braces.
- a) True
  - b) False
37. Personal fall arrest systems shall include a full body harness, shock absorbing lanyard or self-retracting lifeline and a substantial anchor point and/or horizontal/vertical lifeline.
- a) True
  - b) False
38. Safety belts shall be used as part of a personal fall arrest system.

- a) True
  - b) False
39. Self-retracting lifelines shall not be connected to a lanyard, but shall be directly attached to a D- ring on the full body harness.
- a) True
  - b) False
40. Abrasive blasting breathing air equipment shall include a high efficiency breathing air filter and water/oil traps before the filter in the breathing air delivery system to remove moisture, oil, mist and particulates.
- a) True
  - b) False
41. Hearing protection shall be provided to all personnel in areas near abrasive blasting operations where noise levels exceed 85 decibels (dBA).
- a) True
  - b) False
42. Breathing air quality shall meet Compressed Gas Association (CGA) Grade "D" and shall be tested by every six (6) months by a SA approved independent 3<sup>rd</sup> party testing facility.
- a) True
  - b) False
43. All sand blasting component and work surfaces shall be electrically grounded to the compressor, and the compressor bonded to a permanent ground to prevent static electricity build up.
- a) True
  - b) False
44. Flashback flame arrestor shall be installed on all oxygen/fuel cylinder regulators and check valves shall be installed at the end of hoses near the torch.
- a) True
  - b) False
45. If a welding cable becomes damaged beyond a distance of 3 meters (10 ft) from the end to which the electrode holder is connected, it shall be repaired using a standard plug-and-socket coupling.
- a) True
  - b) False
46. Electrical equipment shall not be used in electrically classified locations, unless it is marked to show the class, group and operating temperature for which it is approved.
- a) True
  - b) False
47. All heavy equipment/vehicles shall be grounded as soon as they are positioned near overhead power lines for any type of work.

- a) True
- b) False

48. Slings and other rigging hardware shall have a minimum design safety factor of 5.

- a) True
- b) False

49. Aluminum ferrules are permitted to be used for wire rope slings.

- a) True
- b) False

50. Slings, other rigging hardware and hooks shall be periodically inspected by a SA certified rigger at a maximum interval of 6 months.

- a) True
- b) False