

Question Bank (MCQs) – Rigger's Syllabus

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1. The employee that is responsible for balancing and securing the load to the hook, and will direct during the lift is called –
 - a. Hoist Operator
 - b. Rigger**
 - c. Crane Driver
 - d. Works Manager

2. Day-to-Day inspections should include:
 - a. inspect the wire rope for abnormalities and/or damage.
 - b. inspect the block and hook for any cracks or damage.
 - c. visually inspect limit switches for abnormalities and test for proper functionality.
 - d. all of above.**

3. Wire rope inspections include checking of –
 - a. waviness
 - b. basket / lantern cage deformation (birdcage)
 - c. core protrusion / distortion
 - d. all of above.**

4. A portion /section of a rope is a section of the rope that has lost its circular form is called-
 - a. core protrusion
 - b. flattened portion**
 - c. kink
 - d. none of above

5. Standard signal/Communication for moving Hoist upwards is -
 - a. with forearm vertical, fore finger pointing up, move hand in small horizontal circle.**
 - b. with arm extended downward, fore finger pointing down, move hand in small horizontal circle.
 - c. with shouting up and up.
 - d. none of above.

6. Standard signal/Communication for moving Hoist downwards is -
 - a. with forearm vertical, fore finger pointing up, move hand in small horizontal circle.
 - b. with arm extended downward, fore finger pointing down, move hand in small horizontal circle.**
 - c. with shouting up and up.
 - d. none of above.

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7. Standard Signal for Emergency stop is –

- a. with forearm vertical, fore finger pointing up, move hand in small horizontal circle.
- b. with arm extended downward, fore finger pointing down, move hand in small horizontal circle.
- c. **both arms extended, palms down, move arms back and forth horizontally.**
- d. arm extended, palm down, move are back and forth horizontally.

8. Standard Signal to Move slowly is-

- a. with arm extended downward, fore finger pointing down, move hand in small horizontal circle.
- b. both arms extended, palms down, move arms back and forth horizontally.
- c. arm extended, palm down, move are back and forth horizontally.
- d. **use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal.**

9. Important factor (s) while attaching the load is-

- a. use appropriate sling/hardware (work load limit)
- b. sling angle
- c. center of gravity alignment
- d. **all of above.**

10. Safe Practices for Rigger include -

- a. maintain line-of-sight with the operator.
- b. stop the operation if comprehension is lost.
- c. plan in advance where the load is going.
- d. **all of above.**

11. Lifting Factors while handling the load include –

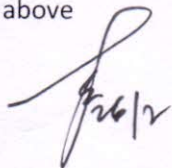
- a. size, weight, and center of gravity of the load.
- b. the rated capacity of the sling.
- c. the number of sling legs & angle the sling makes with the horizontal line..
- d. **all of above.**

12. Types of Rigging & Slings include –

- a. wire rope & fibre rope.
- b. synthetic web slings.
- c. cargo nets
- d. **all of above**

13. The use of two slings, each supporting the same amount of weight and having the same support angle results in

- a. unequal distribution of the load weight.
- b. **equal distribution of the load weight.**
- c. depends upon type of slings.
- d. none of the above



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14. How tight do you tighten a screw pin shackle?

- a. hand tight and back off $\frac{1}{4}$ turn.
- b. hand tight and back off $\frac{1}{2}$ turn.
- c. **minimum of hand tight with pin fully engaged.**
- d. none of the above

15. Protecting slings are used for –

- a. protecting the rigger.
- b. **protecting slings against sharp edges.**
- c. protecting the load.
- d. none of above.

16. Maximum wear limitation of hooks and shackles is?

- a. 5%.
- b. **10%**
- c. 15%.
- d. 20%

17. Which washer is used for locking?

- a. Plain.
- b. **Locking.**
- c. Spring.
- d. Round.

18. The beam which is fixed at one end and free at other end is called –

- a. Simple supported beam
- b. Fixed beam
- c. Overhanging beam
- d. **Cantilever beam**

19. Which of the following does not affect the capacity of a wire rope sling?

- a. sling angle
- b. **thimbles in sling's eyes.**
- c. D/d Ratio
- d. none of the above.

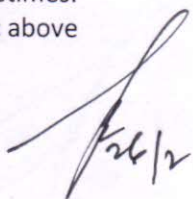
20. If a load is to be slid on flat concrete floor, which of the following provide least friction.

- a. Aluminium
- b. Rubber
- c. **Wood**
- d. Steel.

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21. Which angle from horizontal will produce the greatest tension in a sling leg.
- a. 75 Degree.
 - b. 60 Degree.
 - c. 45 Degree.
 - d. **30 Degree.**
22. What is the hand signal to raise the load with crane.
- a. **thumbs up.**
 - b. index finger up.
 - c. little finger up.
 - d. two hands up.
23. A fibre wire rope will have breaking strength _____ than independent material wire rope.
- a. more
 - b. **less**
 - c. same
 - d. none of above
24. A rigger while lifting a load.
- a. **recognizes centre of gravity to keep it stable.**
 - b. need not to recognize centre of gravity.
 - c. only concentrate on wire size.
 - d. none of the above.
25. How does a Rigger signals to other crew members.
- a. by hand signals.
 - b. by whistling.
 - c. by flags.
 - d. **all of above.**
26. Rigger uses chain slings to lift the heavy load.
- a. no
 - b. sometimes.
 - c. **yes**
 - d. none of the above.
27. A rigger must not convey signals to crane driver for lifting load.
- a. correct
 - b. **incorrect.**
 - c. sometimes.
 - d. a & c above


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28. A Rigger while rigging must follow safety norms/requirements for safety.

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- a. in-correct.
- b. never
- c. **correct**
- d. a & b above

29. A Rigger dismantles, clean & store rigging equipments

- a. **yes.**
- b. no need
- c. not safe to do.
- d. all of above.

30. Material of chain slings in DMW

- a. stainless steel.
- b. **alloy steel.**
- c. copper.
- d. brass.

31. Material of wire rope slings in DMW

- a. Stainless Steel.
- b. **Alloy Steel.**
- c. Copper.
- d. Brass.

32. Wire rope sling is manufactured from

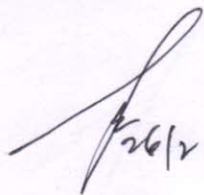
- a. Jute.
- b. Pipes.
- c. **Wires.**
- d. Balls.

33. Chain slings is manufactured from

- a. Pipes
- b. Wires
- c. Plates
- d. **Metallic rings**

34. Rigger inspects chain slings before use daily for

- a. wear out
- b. cracks
- c. breakage
- d. **all of the above**


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35. Rigger inspects wire ropes before use daily for
- a. breakage of wire
 - b. kinking
 - c. wear out
 - d. **all of the above**
36. Should crane operator follow the signal of Rigger?
- a. never.
 - b. sometimes.
 - c. **always.**
 - d. none of the above
37. Safe working limit of slings
- a. **defines the maximum load that should be lifted with the sling.**
 - b. is the limit at which slings are tested.
 - c. is decided by the rigger.
 - d. none of the above.
38. Types of slings used in DMW are.
- a. Chain slings
 - b. Wire rope slings.
 - c. Polyester web slings.
 - d. **All of the above.**
39. Should sling be protected against sharp edges.
- a. **must be protected.**
 - b. no need to protect.
 - c. sling is strong enough & need no protection.
 - d. none of the above.
40. Can kinked wire rope be used.
- a. yes.
 - b. **no.**
 - c. sometimes
 - d. a & c above.
41. Wire rope sling is rejected if,
- a. diameter reduced to 99%.
 - b. diameter reduced to 98%.
 - c. diameter reduced to 97%.
 - d. **diameter reduced to 90%.**

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42. Can wire rope sling be used if

- a. one strand broken.
- b. two strand broken.
- c. three strand broken.
- d. **can never be used even if one strand is broken.**

43. Whether deformed wire rope sling can be used.

- a. **never be used.**
- b. can be used.
- c. sometimes.
- d. none of the above.

44. Chain slings are tested & certified as per Factory act.

- a. **once a year.**
- b. daily.
- c. weekly.
- d. no need.

45. Annual testing of chain slings is done with load at

- a. 200 % of Safe Working Load.
- b. 180% of Safe Working Load.
- c. 150 % of Safe Working Load.
- d. **125% of Safe Working Load.**

46. Annual testing of tackles is done with load at

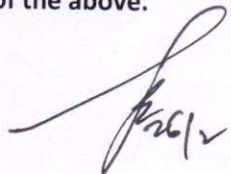
- a. 200 % of Safe Working Load.
- b. 180% of Safe Working Load.
- c. 150 % of Safe Working Load.
- d. **125% of Safe Working Load.**

47. What will happen if the slings are put below the centre of gravity of load.

- a. **load will topple.**
- b. load will not topple.
- c. it is safe.
- d. none of the above.

48. Polyester web sling is removed from service when

- a. cut or snag.
- b. excessive wear.
- c. missed identification.
- d. **any of the above.**



49. Rigger must inspect the rigging equipment

- a. **daily before use.**
- b. weekly.
- c. monthly.
- d. not required.

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50. Which measuring instrument will be used by Rigger to measure the diameter of wire rope sling

- a. **Vernier Caliper.**
- b. Scale.
- c. Measuring Tape
- d. any of the above.

51. Whether Rigger should use only those rigging equipments which are tagged by competent person after inspection

- a. no
- b. **yes**
- c. depends on rigger's judgment.
- d. none of the above.

52. Is it mandatory that the rigging equipment can be certified by Govt. approved person as per Factory act.

- a. no
- b. **yes**
- c. not mandatory
- d. none of the above.

53. Only those slings & ropes can be used which has registration number by registering authority.

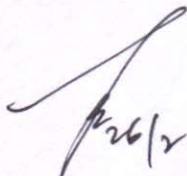
- a. **yes**
- b. no
- c. no need.
- d. none of the above.

54. Whether slings & ropes can be used whose due date of testing has expired.

- a. can be used always.
- b. can be used up to one month after expiry.
- c. **never be used.**
- d. none of the above.

55. Whether newly purchased sling / rope can be used without test certificate.

- a. **never**
- b. yes
- c. Supervisor can allow.
- d. none of the above.


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56. Can Rigger, rig a load whose approx. weight is not known.

- a. **never**
- b. yes
- c. can be rigged.
- d. (b) & (c) above.

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57. How the rejected rigged equipment is disposed.

- a. **should be gas cut & send to scrap yard.**
- b. tag should be removed.
- c. should be sent for repair.
- d. can be used in emergency.

58. A deformation created by a loop in the rope which has been tightened without allowing for rotation about its axis is called -

- a. Core Protrusion
- b. Flattened portion
- c. **Kink**
- d. Waviness

59. Warning device (s) that help (s) bring attention to people in the area of the crane being in operation-

- a. manually operated gong
- b. power-operated bell, siren, or horn
- c. rotating beacon & strobe light
- d. **all of above.**

60. Hand signals during operation are used when -

- a. when operator is deaf.
- b. **voice communications cannot be heard.**
- c. when rigger is dumb.
- d. none of above.

61. Cranes shall be operated only by the following qualified persons:

- a. designated persons
- b. trainees under the direct supervision of a designated person
- c. maintenance and test personnel.
- d. **any of above.**

62. _____ is used to douse general fire?

- a. **Fire extinguisher.**
- b. Life Guard.
- c. Alcohol.
- d. Air blowing.

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63. Overhead lifting devices built on order must be?

- a. stamped by a professional engineer (P.E).
- b. built by a qualified fabricator.
- c. tested to 125% of intended capacity.
- d. **all of above.**

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64. What is meant by first-aid?

- a. **preliminary treatment of a victim by first aid-trained person before doctor.**
- b. first person available at site.
- c. prepare a proper sequence of operations.
- d. care of a victim after treatment by doctor.

65. The most effective way to improve safety in vast organization like Railways is to –

- a. ignore small acts of negligence by the staff.
- b. annual checking of records.
- c. **educate the staff at all levels regarding safe practices.**
- d. punishing defaulting staff.

66. The best way of avoiding accident is –

- a. doing work leisurely.
- b. adopting one's own methods.
- c. **observing safety rules related to job, machine and workplace.**
- d. using mobile phone.

67. When using multiple leg rigging, the most desirable sling angles to have are?

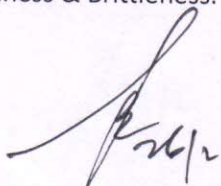
- a. 5-25 degrees
- b. 30-40 degrees
- c. **45-70 degrees**
- d. 75-90 degrees

68. The minimum recommended sling angle is?

- a. **30 degrees.**
- b. 45 degrees.
- c. 60 degrees.
- d. Sling angles are not recommended.

69. Which of the following group of properties enables the manufacture of chain hooks from wrought Iron.

- a. Ductility, Malleability and Hardness.
- b. Hardness, Toughness and Ductility.
- c. **Malleability, Ductility, and Toughness.**
- d. Hardness, toughness & Brittleness.



70. Before a rigger can select the length & capacity of slings needed to lift a load, what two things must he know about the load.

- a. Height, Manufacturer.
- b. Weight, Centre of Gravity.**
- c. Color, Designated pick points.
- d. None of the above.

71. What is the name of PPE item which is used by Rigger during working to protect his head.

- a. Cap
- b. Helmet**
- c. Handkerchief.
- d. None of the above.

72. What is name of PPE which is used by rigger during working to protect his foot.

- a. Sports Shoes.
- b. Industrial Safety shoes.**
- c. Slippers.
- d. None of the above.

73. Which grade of chain is only acceptable type for use in chain slings.

- a. High Test G4
- b. Alloy G-8**
- c. Proof Coil G-3
- d. None of the above.

74. What is name of PPE which is used by rigger during working to protect his hands.

- a. Industrial Hand Gloves.**
- b. Winter gloves.
- c. Protective cloth.
- d. Not required.

75. What sling material shall not be used during acidic working conditions.

- a. Nylon**
- b. Chain
- c. Wire Rope
- d. None of the above.

76. Chain slings_____ to lift the heavy load.

- a. always should be used.**
- b. never should be used.
- c. sometimes to be used.
- d. none of these.

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77. From what material are shackles made from.

- a. Concrete
- b. Iron
- c. **Forged steel**
- d. Aluminium

78. A _____ is a device that attaches the load to the crane snatch block hook.

- a. **Sling**
- b. Motor.
- c. Hoist.
- d. None of the above.

79. Which of the following defects is a cause for removing a wire rope from service.

- a. **excessive broken wires.**
- b. too shiny.
- c. 1% reduced dia.
- d. none of these.

80. Rigger should normally warn the persons, working/standing in the bay of crane movement by

- a. **whistling.**
- b. pushing them away.
- c. calling on mobile phone.
- d. hooting by mouth.

81. What equipments for warning should a Rigger have-

- a. **Whistle.**
- b. Mobile Phone.
- c. Laptop.
- d. None of above.

82. At a time Crane Driver should accept signal from -

- a. all riggers at site.
- b. **only rigger engaged with his crane.**
- c. anybody working at site.
- d. his supervisor only.

83. Crane driver should accept Emergency stop from

- a. all riggers at site.
- b. only rigger engaged with his crane.
- c. **anybody working at site.**
- d. his supervisor only.

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84. Reject the sling if there is

- a. sign of kinking, crushing, bird caging or any other damage.
- b. evidence of heat damage
- c. any end attachments cracked, deformed or worn
- d. **all of above.**

85. Reject the sling if normal throat opening of its hook has expanded by-

- a. 5%
- b. 10 %
- c. **more than 10 %**
- d. none.

86. What precaution should be taken to lift a lengthy load.

- a. hooks of sling with multi legs should be directly engaged at different location on the load.
- b. **spread bar should be used to engage hooks of multi leg slings at suitable loading points of the load.**
- c. spread bar should be used to engage directly the load.
- d. none of the above.

87. What precautions should be taken to save sling from damage likely to be caused by sharp edges of load.

- a. **use a wooden packing.**
- b. use rubber packing.
- c. use cloth packing
- d. none of the above.

88. What are the signs of overloading of wire rope sling

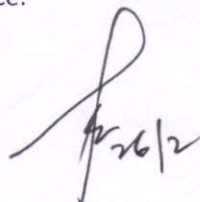
- a. opening up, distortion or cracking of the hook.
- b. distortion and wear of links or closing of thimble.
- c. **(a) & (b) above.**
- d. none of above.

89. What precautions should be taken by Rigger after completion of load lifting work to protect slings from damages.

- a. clean the sling & check for damage.
- b. follow proper storage rules & leave in proper condition for next lift,
- c. don't wait to report damaged or defective slings & follow proper disposal or replacement procedures.
- d. **all of above.**

90. What are the defects sufficient to reject a Polyester Web sling

- a. acid or caustic burns
- b. melting or charring of the sling surface.


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- c. snags, tears or cuts
- d. **all of above.**

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91. What are the defects sufficient to reject Alloy Steel Chain Slings

- a. defective or questionable welds
- b. missing or removed id tags
- c. any end attachments cracked, deformed or worn
- d. **all of above.**

92. What is full form of abbreviation SWL, pertaining to slings

- a. Scheduled Work Load
- b. Special Work Load
- c. Standard Work Load
- d. **Safe Working Load.**

93. To which motion of crane, the under mentioned signal pertains:

- Fore arm vertical, Forefinger pointing up & move hand in small horizontal circular motion.
- a. emergency stop
- b. **hoist load.**
- c. lower load.
- d. none of above.

94. While lifting component from machine table, which motion of hoist should be used to ensure safety.

- a. fast motion
- b. **micro motion**
- c. L.T. motion
- d. C.T. motion

95. What is full form of abbreviation L.T., pertaining to E.O.T. crane

- a. Limited Travel
- b. **Longitudinal Travel**
- c. Long Travel
- d. Lengthy Travel

96. What is full form of abbreviation C.T., pertaining to E.O.T. crane

- a. Complete travel
- b. Common Travel
- c. Close Travel
- d. **Cross Travel.**


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97. What is full form of abbreviation A.H., pertaining to E.O.T. crane

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- a. Additional handle
- b. Auxiliary Hoist**
- c. Additional Hoist
- d. None.

98. What precaution should be taken to avoid jerks during hoisting of load with crane

- a. hook of snatch block of crane should be centered vertically on cg of the load**
- b. hook of snatch block of crane should be used for taper lifting of the load.
- c. all legs of the sling should be unequal in length.
- d. none of the above

99. Rigger must know the contact number of Safety Officer of DMW.

- a. yes**
- b. not required.
- c. may be.
- d. none of above

100. Rigger must know the contact number of Ambulance of DMW.

- a. yes**
- b. not required.
- c. may be.
- d. none of above.

Note: This technical MCQ is indicative only.


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