

Instructions to Candidates

- There are two parts in the question paper namely Part A and Part B.
- Part A is objective type having 50 questions. No negative marks for wrong answer. (50 questions x 1 mark = 50 marks). To be answered in OMR answer sheet.
- Part B is descriptive type. Answer any five questions. To be answered in conventional answer sheet (5 questions x 10 marks = 50 marks)
- In case of doubt in Tamil or Hindi version, English version shall be followed.
- Do not use sketch pens. Use only Black (or) Blue Ball point pens.

Part A

Objective Type questions

(Answer all questions)

(50 questions x 1 mark = 50 marks)

1. One inch is equal to

- (1) 2.54cm (2) 25.4mm (3) 1/12 of a feet (4) all the above

2. Quality policy of I.C.F ensures

- (1) Quality (2) Reliability (3) Safety (4) all the above

3. Feeler gauges are employed to measure the

- (1) Thickness of the pipe (2) Yield strength of the components (3) Thin gap between components (4) None of the above

4. Fillet thickness is the term associated with

- (1) Welding (2) milling (3) grinding (4) painting

5. The spring is subjected to the following heat treatment

- (1) Hardening (2) Tempering (3) Both 1 & 2 (4) Annealing

6. Density =

- (1) Mass x 1/Volume (2) mass x volume (3) mass + volume (4) Volume /mass

7. This reference consists of 14 digits xx xx xx xxx x xx xx – What it is?
- (1) Drawing no (2) Unique no (3) unified list number (4) all the above
8. Why housekeeping is important
- (1) Reduced fire hazard (2) higher employee morale (3) increase in production
(4) all the above
9. _____ is used for removing drill from the spindle
- (1) Spanner (2) sleeve (3) puller (4) drift
10. The new shed opened near furnishing is
- (1) MUTP shed (2) MRVC phase-II shed (3) LHB shed (4) all the above
11. The item which is not fitted inside of coach
- (1) Fan (2) partition frame (3) Fluorecent light fitting (4) Cattle guard
12. Side wall sheet and light rails are joined by
- (1) Riveting (2) Butt seam welding (3) submerged arc welding (4) spot welding
13. Under cut means
- (1) Cutting a tree (2) machining method (3) weld defect (4) safety method
14. Tight fitting of mating parts such as bearing to axle is done with
- (1) Interference fit (2) clearance fit (3) Transition fit (4) Non interference fit
15. $50_{-0.004}^{+0.010}$ refers to limits
- (1) 49.900 to 50.004 (2) 40.090 to 50.060 (3) 49.996 to 50.010 (4) none of the above
16. Shop 26 lay out is
- (1) Process layout (2) Fixed position layout (3) Product lay out (4) None of the above
17. Air spring is used in
- (1) Primary suspension (2) secondary suspension (3) Both 1 and 2 (4) conventional shells
18. Maximum limit in the improved special incentive scheme is
- (1) 64.4% (2) 65 % (3) 70% (4) 50%

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19. Spot heating is done in which shop

- (1) 30-shop (2) shop-21 (3) shop-20 (4) shop-14

20. No of accidents in a factory can be reduced by

- (1) Providing incentive to employees (2) Documentary analysis (3) Proper house keeping (4) None of the above

21. What is the Expansion of ISO?

- (1) International standards Organization (2) Indian standard Organization (3) Institute of safety Organization (4) International Organization for standardization

22. Who is responsible for quality of ICF coach

- (1) CME/QA (2) GM (3) CME (4) Each employee

23. Dust free atmosphere is used for assembly of

- (1) Roller Bearing (2) Axle Box with roller bearing (3) Wheel turning (4) 1 & 2

24. The inverted triangle ' ∇ ' used in drawings denotes

- (1) Tensile strength (2) Dimensional accuracy (3) Carbon contact (4) Surface finish

25. Which day is celebrated as HINDI Day every year?

- (1) 18th January (2) 2nd October (3) 8th August (4) 14th September

26. Hot Phosphating is a process used for

- (1) Anodizing (2) Electroplating (3) surface preparation (4) Annealing

27. Double Crane operation is needed for lifting

- (1) Roof (2) Under frame (3) Body Shell (4) all the above

28. Orange peel is

- (1) Fruit (2) welding method (3) painting defect (4) painting method

29. In Δ 2.5 refers to

- (1) Grinding of 2.5 mm (2) Throat thickness of 2.5 mm (3) Flushing of 2.5 mm (4) None of the above

30. Noise level permitted in the Industrial area as per noise act
(1) 60 dB (2) 75 dB (3) 90 dB (4) >100 dB
31. Camber setting is done in
(1) Shop-30 pitline (2) Underframe section (3) Body Jig (4) Roof section
32. Elcometer is used to measure
(1) Dry film thickness (2) Dew film thickness of paint (3) Viscosity of the paint
(4) wet film thickness of paint
33. P 17-A is a rejection memo on account of
(1) Material fault (2) Machine fault (3) worker's fault (4) none of the above
34. The format for defects issued by inspection department is
(1) F004 (2) P14 (3) F001 (4) F002
35. The voltage in the over head traction is
(1) 25 kv (2) 2500 volts (3) 2.5 kv (4) 230 volts
36. Hot air gun is used to
(1) weld sheet metal (2) Join the vynatile sheets (3) Join LP sheets (4) Join rexin sheets
37. The permitted voltage used in hand lamps used in ICF is
(1) 240 volts (2) 220 volts (3) 24 volts (4) 110 volts **DC**
38. The area of triangle of height 20 cm and base 3 cm is
(1) 60 cm² (2) 15 cm² (3) 0.6 cm² (4) 30 cm²
39. Which is the road transport shop in ICF?
(1) shop 48 (2) shop 88 (3) both 1 & 2 (4) None
40. Which one of these is a specifically a carpenter tool
(1) cutting tool (2) planner tool (3) striking tool (4) Boring tool
41. Hardness of a metal is
(1) Mechanical property (2) Physical property (3) Chemical property (4) Good property

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42. The side wall and roof of MUTP coaches are made of
(1) Corten steel (2) mild steel (3) stainless steel (4) None of the above
43. EMCD (Electro Magnetic Crack Detection) is done in ICF for
(1) Axle (2) Bearing (3) Spring (4) all of the above
44. NFTC sheets are used in ICF coaches
(1) Panelling (2) Ceiling (3) Flooring (4) all of the above
45. As per OLIC, a letter received in Hindi should be replied in
(1) English (2) Hindi (3) Either 1 or 2 (4) Both 1 and 2
46. In shop-10 laser is used for
(1) Joining (2) cutting (3) both 1 and 2 (4) None
47. Load testing of Bogie is done in which shop
(1) shop 10 (2) shop 24 (3) shop 36 (4) shop 40
48. Grit blasting is done in shell division shop
(1) shop 26 (2) shop 23 (3) shop 36 (4) shop 30
49. Quality of riding depends as
(1) Green spring (2) Yellow spring (3) Blue spring (4) Even grouping of spring
50. Stainless steel can be best cut by
(1) manual metal arc welding (2) oxy-acetylene gas cutting (3) Plasma arc cutting
(4) all the above

Part B

Descriptive Type Questions

(Answer any 5 questions)

(5 questions x 10 marks = 50 marks)

1. Explain any five welding defects with appropriate diagrams wherever needed
2. Explain the process in the new paint booth at ICF in furnishing division from beginning to end.
3. Write any five material handling equipment used in ICF and give suggestions to improve the material handling methods.
4. Write about the official language policy and give the list of exams conducted and rewards given.
5. Differentiate between allowance and Tolerance. Explain the various types of fits for assembly.
6. Explain the various features of ICF and RCF incentive system? Give the advantages of both the incentive system.
7. Explain any three welding process
 - a) Spot welding
 - b) Manual metal arc welding
 - c) Gas metal arc welding
 - d) Laser welding
 - e) Submerged arc welding
8. Write some of the welfare measures carried out in ICF for the benefit of the employees
9. Write about the new features implemented in ICF coaches for increased customer satisfaction