

50/c

**SELECTION TO THE POST OF AME (GROUP 'B') IN MECHANICAL
DEPARTMENT THROUGH DEPARTMENTAL SELECTION (70% QUOTA)**

Date: 16.11.2016

Max. Marks: 150

Note: (i) Time allowed is three hours + 10 minutes extra for going through the question paper.

(ii) Answer -

Any five questions PART-A (each question carries 20 marks)

Any five questions from PART-B-I (each question carries 5 marks)

Any one question from PART-B-II (each question carries 15 marks)

Any two questions from PART-B-III (each question carries 5 marks)

PART-A (100 Marks)

Q.No.1

Indicate True or False on the following statements. Each right answer carries TWO marks :

1. In ICF SPOT welding machine is utilized for manufacture of LHB side walls and roof.
2. 5-Axis machining centre is utilized for machining ICF bogie frame.
3. Underframe of LHB coaches is made of stainless steel.
4. Recently ICF has started using Air Springs in secondary suspension of Antyodaya coaches.
5. Deen Dayalu coaches have been provided with water purifier.
6. Camber has to be provided in the underframe of LHB coaches.
7. ICF design Coach Shell is a straight walled Shell.
8. Turn-under is provided in the LHB design coaches.
9. Type of stainless steel provided in the wall and roof of LHB coaches is same
10. Hybrid design of coaches (LHB Shell + ICF Bogie) were provided with air spring in secondary suspension of bogie.

Q.No.2

Fill in the blanks. Each right answer carries TWO marks:

1. ICF has supplied Metro rakes for (Delhi/Kolkata/Bangalore/Mumbai).
2. J&K DEMU rakes are provided with for heating (on board DA set/underslung DA set/HOTAL Load Converter)
3. SPART is provided withtransmission (Hydraulic/Diesel-electric/Pure-electric)
4. MUTP Phase-II rakes are provided withwall paneling (FRP/Polycarbonate/ACP/LP Sheet)

5. Technology for manufacture of ICF coaches was obtained from(USA/ Switzerland /UK/China)
6. LHB coaches are provided with(Shacko/CBC/Screw) coupler
7. Weight of LHB coach is(more/less/equal) to ICF coach of similar type.
8. ICF produced (more/less/equal) number of coaches in 2015-16 as compared to combined out-turn of RCF/Kapurthala and MCF/Raiberaley
9. Wheel disc of FIAT bogies provided in LHB design of coaches is (Forged/Cast/ can be cast or forged)
10. Width of EMU coach is(equal/less/more) than a DEMU coach as produced in ICF

Q.No.3

Write short notes on any four. Each question carries FIVE marks:-

1. Differences in LHB and ICF coach design
2. What are the important machines required for manufacturing LHB coaches (Shell + bogie)
3. Different machines required for manufacturing springs
4. Give layout of a factory; involved in manufacture of 300 LHB Shells in a year
5. What are the different machines required in a Wheel Shop, Which are the additional machines required to make FIAT bogies; as compared to ICF bogies.
6. Which are the important machines and equipment available in Chemist and Metallurgist Organization of ICF.

Q.No.4

Describe duties of following Officers in ICF (Any four). Each question carries FIVE marks: -

1. PE/PL/Fur & PE/PL/Shell
2. PE/PR/Fur & PE/PR/Shell
3. SME/Planning/Shell & SME/MPO/Fur
4. CME/QA
5. Dy.CC&M
6. CPM

Q.No.5

Write short note on any four of the following. Each question carries FIVE marks: -

1. ISO – 50000
2. Laser cutting and Welding machine
3. Layout of a model spring manufacturing shop capable of manufacturing FIAT as well as ICF springs (LHB & Conventional ICF coaches)
4. Procedure currently followed in ICF for painting ICF and LHB coach
5. Inputs required for increasing speed potential of LHB coaches to 200 KMPH
6. Procedure adopted for SKIN Tensioning of LHB Shells and ICF Shells

Q.No.6

Write short notes on any four. Each question carries FIVE marks:-

1. PH-41 and PH-42
- 2. What are the various stages involved in execution of a project under PH-42 from the time of its conceptualization to commissioning.
3. Quality Control measures that you will propose to improve quality of coaches manufactured in ICF
4. Suggest measures for improving productivity of man power in ICF
5. What you will do if you are made GM/ICF for one year.
6. Measures taken in ICF for improving house-keeping and Industrial Safety

SECTION B-I (25 Marks)

Answer any of the five questions. Each carries FIVE Marks:-

Q.No.1

Describe advantages of online job card in particular and ERP in general for ICF?

Q.No.2

Write short notes on any FIVE on the following. Each question carries ONE mark: -

1. Rolling Stock Programme
2. M&P Programme
3. Time Office role in ICF
4. How an SSE in ICF can improve production of his shop?
5. What do you mean by FIVE-S practice
6. Reasons for booking missing hours in ICF workshops

Q.No.3

Describe D&AR rules, giving procedure to be followed for terminating services of an employee

Q.No.4

Describe various types of leave available to an employee in ICF. How many Passes & PTOs for free/concessional rail travel are given to ICF employee in a year who has put in five years of service.

Q.No.5

Describe in brief. Each carries ONE mark:

- (i) Payment of Wages Act
- (ii) HOER
- (iii) WCA
- (iv) Factory's Act
- (v) Staff Welfare measures taken in ICF

SECTION B-II (15 Marks)

Answer any ONE of the following two questions: -

Q.No.1

What are the provisions of Official Language Act, 1963 and what steps have been taken by ICF to implement them. (15 marks)

Q.No.2

What are the various managerial statements (Monthly generated by EDP Centre in regard to Man Power (Direct Workers; Essential Indirect Workers), utilization in Production Shop also write in brief the utility of these statements (15 marks).

SECTION B-III (10 Marks)

Each question carries FIVE marks. Attempt any TWO of the following questions:-

Q.No.1

What are the various stages involved in Budget preparation in ICF. What do you mean by WMS.

Q.No.2

Describe various types of tenders used in ICF for material procurement. What do you mean by Procurement of an item on PAC.

Q.No.3

What is Production Programme. What are the major types of coaches which ICF has to manufacture in 2016-17. How PRs are generated.