

SOUTHERN RAILWAY

MADURAI DIVISION

Duration: THREE HOURS.

DATE: 23.02.2013

QUESTION BOOK

Examination for the post of Junior Engineer (C&W) in Pay band Rs.9300-34800
with Grade Pay Rs.4200/- against 25% Intermediate Apprentice Quota in
Mechanical Department / Madurai Division

Instructions

- 1) Answer all the questions.
- 2) Candidates should write their name, designation, office, roll number / staff number, etc., only in the space provided in the Fly Leaf and not in any of the page in the answer books or additional sheets.
- 3) Any names / roll number if found in the answer books or additional sheets, such papers will be disqualified.
- 4) In the answer to the objective type questions, no correction of any type is permitted. In case any correction is made, that answer shall not be evaluated at all for example, corrections made in the objective type questions like:-
 - a) Cutting
 - b) Overwriting
 - c) Modifying the answer in any waywill not be evaluated at all.
- 5) Duration of the examination is three hours.
- 6) Total Marks – 100.

Part 'A'

I Fill up the blanks.

15 marks.

1. The sanctioning authority for movement of 'A' class ISMD loads is _____
2. During Full service application, BP Pressure is reduced to _____ kg/cm².
3. Quick service valve is located at _____
4. Piston stroke for BMBC, during emergency application is _____
5. Coefficient of Composite 'K' type brake block is _____
6. The colour code for wagon stock DV is _____
7. The condemning limit of sharp flange is _____
8. LHB Coaches are provided with _____ bogies.
9. The schedule attended in between two POU is _____
10. Casrub 22 HS bogies are permitted to run _____ km/h
11. The total life of tank wagon is _____ years
12. The working capacity of AAR high tensile CBC is _____
13. The permissible limit of Creep is _____
14. Every year, Hindi day is celebrated on _____
15. The HQ of North Central Railway is _____

(Contd.)

(2)

II Expand the following

10 marks

COF MOW

ODC

RDSO

CTRB

IRCON

III Match the following

10 Marks

1. Stainless steel	A. CBC
2. Thermo Hunter	B. Roller bearing
3. Anticreep mechanism	C. Pest Control
4. Disinfestation	D. Box N - HL
5. RSG9	E. Flange Fracture.
6. Shelled tread	F. 75 tone
7. PU Side bearer	G. Trough floor.
8. Corton Steel	H. Castnub H S bogie.
9. 'A' dimension	I. Leakage test
10. Dumb bell marks.	J. Glace Adjuster

IV Say true or False

10 marks.

- 'L' type brake blocks (freight) are interchangeable with 'L' type brake blocks (coaching)
- Disinfestation of AC coaches are done once in 20 days.
- Composite Brake blocks of mainline Coaches should be replaced when its thickness reaches 12 mm
- In RCF Coaches, Centre Pivot takes 50% of Coach wt.
- Brake shoe key of Coaches & wagons are interchangeable
- Si. A.K. Rastogi is our DRM
- Wheels with root of flange can be permitted for one trip
- The release time of DV of goods stock is 40-45 sec
- S 1313 is used for material transfer from one depot to other.
- Target time for turning out ART in daytime is 30 mts.

Part 'B'

Answer any five questions.

5 x 2 = 10 marks

1. What are the technical parameters of LHB coaches.
2. What are the objectives of CDTs.
3. What is a DRS card.
4. What are the reasons for BP Pressure to become less than 5 kg/cm².
5. What are the reasons for Buffer drooping.
6. Why auxiliary reservoir is necessary?
7. What are the special features of HHP Demu rail?

Part 'C'

5 x 9 = 45 marks

Answer any five questions.

1. With a neat sketch explain the working of CDTs?
2. What are special features of BLC wagons?
3. What are the modifications done on Castor bogie?
4. Differentiate between Underframe mounted and bogie mounted brake system.
5. With neat sketch of Single car test Rig, write the procedure for conducting various tests of AB Rolling stock.
6. What are the incentives available for implementation of Rajbhasha under OLIC?
7. What are the different activities to be carried out in A schedule in a PM depot?