

**QUESTION PAPER FOR THE SELECTION OF CHIEF INSTRUCTOR**

The following consisted of two parts; part 'A' and part 'B'. Part 'A' consists of objective type Questions and carries 20 marks. Part 'B' consists of descriptive type Questions carrying 80 marks. Candidates may answer any 8 Questions out of 10 questions of Part B. Each Question carries 10 marks.

**PART - A**

Time 3 Hrs

(20 x 1 mark) = 20 marks

**Note:** 1) Answer all questions.

2) indicate the correct choice (A, B, C or D) in your answer sheet against each Question.

1. The codal life of light utilization category of coaches.  
A) 25 Years      B) 30 Years      C) 35 Years      D) 40 Years
2. Maximum/Minimum buffer height from rail level in workshops for a BG coach in mm is.  
A) 1105/1095      B) 1105/1090      C) 1100/1090      D) 1105/1085
3. What should be the limiting maximum speed of the train for rolling in / rolling out examination?  
A) 20 KMPH      B) 25 KMPH      C) 30 KMPH      D) 35 KMPH
4. Enroute / Terminating examination is prescribed in round trip maintenance pattern of coaching train examination  
A) After every 250 to 350 Km of run  
B) After every 350 to 400 Km of run  
C) After every 400 to 450 Km of run  
D) After every 500 Km of run
5. The speed restriction to C class ISMD load  
A) 20 KMPH      B) 25 KMPH      C) 40 KMPH      D) 15 KMPH
6. Schedule 'A' examination is required to be done  
A) Every month  $\pm$  3 days  
B) Every month  $\pm$  2 days  
C) Every month  $\pm$  1 day  
D) Every month  $\pm$  1 week

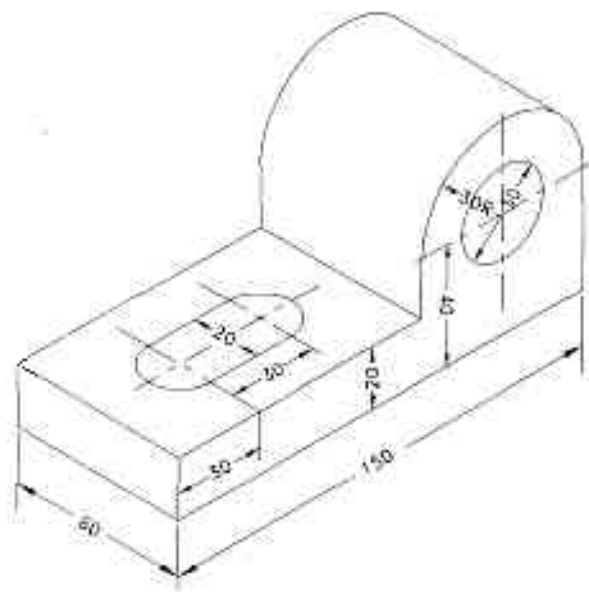
- 7. In leakage test conducted with Single Car Test Rig the drop in BP should not be more than
  - A) 0.1 Kg/cm<sup>2</sup> in one minute
  - B) 0.15Kg/cm<sup>2</sup> in one minute
  - C) 0.2 Kg/cm<sup>2</sup> in one minute
  - D) 0.2 Kg/cm<sup>2</sup> in 15 seconds
  
- 8. Bogie brake rigging provides ——— mechanical advantage in AC coaches.
  - A) 5 per bogie
  - B) 7.4 per bogie
  - C) 8.4 per bogie
  - D) 6.2 per bogie
  
- 9. The Alternator rating of non AC SG coaches.
  - A) 4.5 KW
  - B) 18 KW
  - C) 22.75 KW
  - D) 5 KW
  
- 10. The permissible maximum flat surface on tread of BG ICF coach is
  - A) 20 mm    B) 25 mm    C) 50mm    D) 60mm
  
- 11. Underaged wagon can be condemned by
  - A) CWM of the shop    B) Sr.DME/C&W    C) A or B    D) CME
  
- 12. First and subsequent POH interval of BTPN wagon in yrs.
  - A) 4.5 /4    B) 6/6    C) 6/4.5    D) 6/4
  
- 13. BVZI Brake van has which bogie?
  - A) CASNUB    B) UIC    C) ICF
  - D) It is a four wheeler wagon.
  
- 14. The requirement of BP in the last wagon for a goods train with more than 56 wagons
  - A) 4.9 Kg/cm<sup>2</sup>    B) 4.8 Kg / cm<sup>2</sup>    C) 4.7 Kg/cm<sup>2</sup>    D) 4.6 Kg/cm<sup>2</sup>
  
- 15. Longitudinal clearance between side frame and bolster for Casnub Bogie.
  - A) 6 mm    B) 8 mm    C) 10 mm    D) 4 mm
  
- 16. Man hours prescribed for intensive examination of air brake for CC rake is
  - A) 60    B) 100    C) 160    D) 40

17. Slack free couplers are used in  
 A) LHB coaches    B) DEMU    C) MEMU    D) BLC wagons
18. Plate thickness of side walls of BOX'N' wagon is  
 A) 3mm    B) 5mm    C) 6mm    D) 8mm
19. BOXN HA wagon differ with BOX 'N' in  
 A) Length    B) Width    C) Height    D) Length & Height
20. An Air Brake ROH depol having targeted capacity of 250 to 500 ROH / month is classified as  
 A) Super Depot    B) Mega Depot  
 C) Major Depot    D) Minor Depot

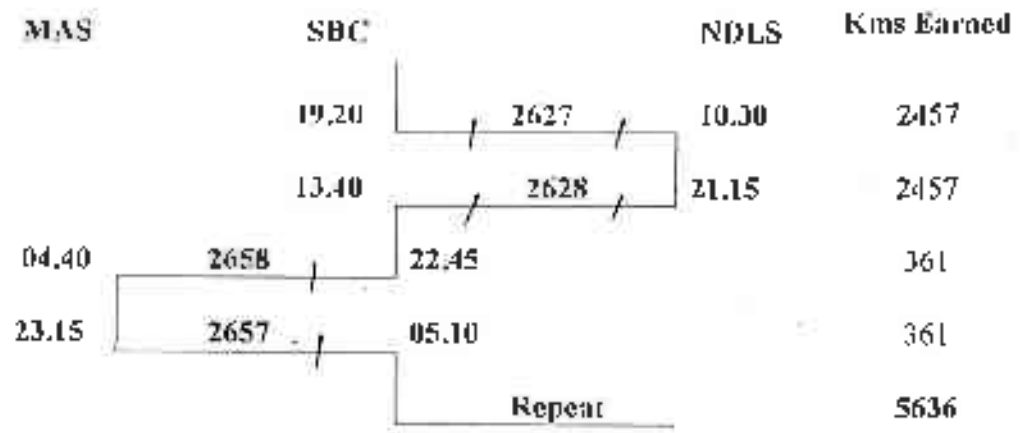
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**PART -B**

(8 x10 marks) = 80 marks

1. Draw elevation, top and side views of the following item.



2. a Calculate the average annual Km earnings of a coach running in the rake link below. You may take 52 weeks as annual.



(No. of rakes: 6)

- b What are the approved mandatory conditions to be fulfilled prior to introduction of Round Trip Primary Maintenance on coaching trains at other end (Non Primary End).

3. a What type of coaches the following transportation codes stands for
- (i) RA
  - (ii) VVN
  - (iii) WGSCN1
  - (iv) RS
  - (v) PPS

- b What is empty – Load device? With a label diagram describe its working.

4. a Draw a neat sketch of twin pipe air brake system adopted for passenger stock and label its parts.
- b What is OBHS? State the conditions to be fulfilled by a train for introduction of OBHS

6. a What is SAB?
- b What do you understand by control 'A' and 'e' dimensions in SAB?

6. a What are the various type defects? Indicate the condemning limits for these defects
- b What are the special features of BLC wagons?

7.

- a Write any three states coming under each region classified under the provisions of Official Language Act.
- b What are the documents coming under section 3 (3) of the official Language Act that are to be issued in Hindi-English bilingual form?

8.

- a What are the BPC rules relating to Air brake CC rakes?
- b How are the unloadable BOX N wagons classified?

9.

- a What is an I.S.M.D. or O.D.C Load? What are the standard moving dimensions for BG?
- b How are ISMD loads classified?

10. With neat label diagram, explain spring configuration of various types of CANUB Bogies.

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