

Subjective questions on MCT-01

- 1) Write important features of LHB coaches which make them superior to existing ICF design Coaches.
- 2) Write about various types of steels and its compositions used in the construction of LHB shell.
- 3) How heat and sound insulation done in a LHB coach? Write in detail.
- 4) Write in detail about following in LHB coaches
I) Side wall ii) End wall iii) Roof IV) under frame.
- 5) Please explain the lifting procedures of LHB coach body.
- 6) Please explain procedures of inspection of LHB coach under frame body.
- 7) Write Repair Procedure by Welding For Cracks on Sole Bar of LHB Coach.
- 8) Write various salient features of Fiat Bogie. Please also write main technical data of Fiat bogie.
- 9) Write in detail about primary and secondary suspension system of LHB coach.
- 10) What is Air spring? What are its various constructions details?
- 11) Write mounting and dismantling procedure of Air Spring.
- 12) What are the various defects found in Axle?
- 13) Explain Maintenance Procedure of wheel & Axles in the Workshop
- 14) Examination and repair practice of wheel & Axles in carriage maintenance depot.
- 15) What is hot axle? What are the various preventive measures to avoid Hot Axle?
- 16) What is Wheel Balancing? Explain in detail.
- 17) What is Air brake system? What are the various types of Air-brake system? Write in detail.
- 18) Explain working of Twin pipe Air brake system of a coach with the help of neat sketch.

- 19)What is the working principle of Air brake system, Explain in detail?
- 20)Explain following defects of wheels. I) Shattered Rim ii) Spread Rim iii) Shelled Tread IV) Thermal Cracks v) Heat checks.
- 21)What is coupler system? Write various features of tight lock center buffer couplers of AAR type H.
- 22)Write various technical data of tight lock center buffer couplers of AAR type H.
- 23)Write Coupling and Uncoupling Procedure of LHB coaches.
- 24)Write in detail about Periodic Maintenance & Overhauling of tight lock center buffer couplers of AAR type H.
- 25)Write Preventive Maintenance Procedures of LHB coaches coupling system.
- 26)Write various Check points for CBC Coupler to ensure proper Coupling.
- 27)What is Single car testing of Air brake Stock? Explain in detail.
- 28)What are the various component used in Air brake system? Write in detail.
- 29)What is BMBS system? Explain in detail.
- 30)What are the amenities fittings? What are its various types? Write in detail.
- 31)Write various types of amenities fittings used in AC coaches.
- 32)What is suspension system? What are its various types and functions?
- 33)What is coupling? What are the various types of Coupling used in railways?
- 34)What are the various components of Coupling? Write in detail.
- 35)Write coupling & uncoupling procedure in detail?
- 36)What is the various method of Train examination? Write in detail.
- 37)What is the maintenance pattern of coaching trains? Explain in detail.
- 38)What is RPC-4? What is its importance?
- 39)What checks are performed in primary and secondary maintenance? Write in detail.
- 40)What is maintenance manual? What is its importance?

- 41)What is IRCA part-IV? What is its significance?
- 42)What are the reject able defects as per IRCA part-IV? Explain in detail.
- 43)Write various salient features of IRCA part-IV.
- 44)Write in detail about periodical inspection of Air brake Gear as per IRCA part IV.
- 45)Write in brief about followings
I) Project Swarn ii) Project Utkrith
- 46)Write in brief about followings
I) Dindyalu coach ii) Humsafar Coach
- 47)Write in brief about followings
I) Dindyalu coach ii) Humsafar Coach
- 48)Write in brief about followings
I) Double Decker Coach ii) Tejas Coach
- 49)Write in brief about followings
I) Double Decker Coach ii) Tejas Coach
- 50)What is the Working principle of Air suspension System? Please write main components of Air suspension system.
- 51)What is the inspection and maintenance schedule of Air suspension System? Write in detail.
- 52)What is FIBA? What is its necessity? Please make a line diagram of FIBA.
- 53)What are the Maintenance Pattern of Rajdhani/Duranto type passenger trains as per RPC-IV?
- 54)What is the Maintenance Pattern of mail/Express type passenger trains as per RPC-IV?
- 55)What are the Maintenance Pattern of Dedicated Parcel trains as per RPC-IV?
- 56)What are the Maintenance Pattern of Dedicated Parcel trains as per RPC-IV?
- 57)What are the Maintenance Pattern EMU trains as per RPC-IV?
- 58)What is Coach Maintenance Management module? Write special features of CMM.

- 59)What are the various infrastructure requirements of Coach Maintenance in a coaching depot? Write in detail.
- 60)Draw a coaching depot lay out suitable for the maintenance of 26 coaches. List various M&P requirements of a coaching depot.
- 61)Write Sequence of operation on a rake entering in to a coaching depot. Write main features of the Maintenance Bay.
- 62)What are the Main features of the maintenance sick line? Write in detail.
- 63)Write Details of infrastructure facilities proposed for primary maintenance depot holding 500 coaches.
- 64)Write various Troubleshooting faults in air brake system en-route.
- 65)Write various modifications done in coaching stock.
- 66)What is BPC? What is the validity of BPC for passenger trains?
- 67)What are the various conditions of validity of BPC for a Good train?
- 68)What is EP brake system? What are its special characteristics?