

Syllabus for Junior Engineer/Track Machines in Level-6 against 25% Promotional Quota

- Functions of Track Machine Organisation.
- Duties of SSE/TM(SD), SSE/JE/TM Working on Machines, SSE/JE Machine In-Charge, SSE/JE/MCM/TMM in Control set up in HQ/ZMD/Division, SSE/JE (P.Way) Deployed with the Machine.
- Functions of Divisional Control, track machine control & Zonal HQ control in respect of Track Machines.
- Inspection Schedule of Track Machine Officials, Inspection Schedule of Open Line Officials, Items to be inspected.
- Different types of track machines, important assemblies, rated progress, working mechanism, symbols and circuit diagrams.
- Basic principles of working of different types of Track machines.
- Works required before, during & after deployment of track machines.
- Rules for movement and block working.
- Maintenance Schedule for Track Machines.
- Requirement of man power, training & roster.
- Procurement of Consumables, Components and Spares.

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Model Questions(Technical) for JE/TMC in Level-6

1. Lining systems are used onmachines
 - a. CSM & 3X only
 - b. UNO & DUO only
 - c. all tamping machines only
 - d. all track machines

2. During alignment machine corrects
 - a. Slew
 - b. versine
 - c. cant
 - d. cross level

3. Versine of curved track depends on
 - a. radius of curve
 - b. measuring chord length
 - c. measurement method
 - d. all of a,b & c

4. Double chord lining system is used on machine
 - a. UT Only
 - b. Old UNO & DUO only
 - c. CSM & Tamping Express
 - d. only CSM

5. In DUOMATIC/UNOMATIC, super elevation is fed from
 - a. Working cabin
 - b. Front cabin
 - c. Both cabin
 - d. Any cabin

6. In levelling system, there are height transducers
 - a. Two
 - b. Three
 - c. Four
 - d. One

7. Longitudinal levels are measured byin levelling system
 - a. pendulum
 - b. General lift potentiometer
 - c. Height transducer
 - d. Cant potentiometer

8. In levelling system, front pendulum is used for correction ofautomatically
 - a. Longitudinal level
 - b. Cross level
 - c. versine
 - d. Twist

9. In levelling system, middle pendulam is used for
a. Cross level correction b. Indication of cross level
c. Cannot say d. Twist
10. The output of the rear pendulum servesfunctions in CSM
a. 1 b. 2
c. 3 d. 4
11. TLE(SQRS) is aton capacity machine.
(a) 5 (b) 9 (c) 12 (d) none
12. PQRS is asystem of track renewal-
(a) Fully Mechanized (b) Semi-Mechanized (c) both (d) none
13. PQRS lays-
(a) Prefabricated panels (b) Individual Sleepers (c) both (d) none
14. Oil change of Z. F. Gear Box is done at:
(a) 500 Hrs. (b) 1000 Hrs (c) 2000 Hrs (d) None of the above
15. Capacity of ZF Gear Box is:
(a) 45 lts (b) 20 lts (c) 100 lts. (d) None of the above
16. By which Tool/Instrument, the flow of hydraulic pump will be checked?
(a) Flow meter (b) Hydrometer (c) Pressure Gauge (d) None of the above
17. How many engines are provided on BCM-
(a) 01 No. (b) 02 Nos. (c) 03 Nos. (d) None of the above
18. What is the type of engine provided on BCM-
(a) Cummins (b) Deutz (c) MWM (d) None of the above
19. How many types of conveyor belts are provided on BCM-
(a) One type (b) Two type (c) Three type (d) None of the above

20. Cleaned ballast is put into the track through.....conveyor belt.
(a) Main (b) Distribution (c) Waste (d) None of the above
21. How many maintenance schedules are there in Duomatic machine-
(a) 7 (b) 4 (c) 5 (d) None of the above
22. Schedule-I is done for Tamping machine in-
(a) 1hr (b) 2hrs (c) 5hrs (d) None of the above
23. 50 hrs schedule-II is done for Tamping machines in-
(a) 1hr (b) 2hrs (c) 5hrs (d) None of the above
24. Schedule-III for 09-CSM/09-3X machine is done at-
(a) 100hrs (b) 200hrs (c) 500hrs (d) None of the above
25. Schedule-IV for 09-CSM/09-3X machine is done at-
(a) 200hrs (b) 500hrs (c) 1000hrs (d) None of the above
26. Schedule-V for 09-CSM/09-3X machine is done at-
(a) 1000hrs (b) 5000hrs (c) 1000hrs (d) None of the above
27. When selecting a pipe for hydraulic lines always make sure it will withstand the system.....
(a) Flow (b) Pressure (c) Force (d) None
28. A positive seal..... even a minute amount of fluid from getting past.
(a) prevents (b) permits (c) either (a) & (b) (d) None
29. A non positive seal..... a small amount of internal leakage.
(a) Prevents (b) permits (c) both a&b (d) None
30.seals are installed between parts which move relative to one another.
(a) Positive (b) Non positive (c) Dynamic (d) Static

31. The capacity of a pump can be specified by which of the following.

- (a) Gallons per minutes (b) Cubic centimeter per revolution
(c) Litre per minute (d) All of the above.

32. Kirloskar HA 694 engine fitted on PQRS is a engine.

- a) 6 cylinder b) 12 cylinder c) 8 cylinder d) 18 cylinder

33. Deutz Engine Model BF 12L 513C is a engine.

- a) 6 cylinder b) 12 cylinder c) 8 cylinder d) 18 cylinder

34. What is the unit of battery capacity.

- (a) Ampere Hour (b) Watt hour (c) Ampere Meter (d) Kilowatt Hour

35. Specific gravity is measured by-

- (a) Hydrometer (b) Hygrometer (c) Energy Meter (d) Speedometer

36. What is full form of ALC

- a. Automatic logic control b. Automatic guiding computer
c. Automatic lining control d. Automatic LASER Control

37. In ALC, there is mode for correction.

- a. one b. two
c. three d. None of these

38. In levelling system, there are height transducers

- a. Two b. Three
c. Four d. One

39. For single insertion, normal general lift value should bein PSC sleeper track

- a. 50 mm b. 100 mm
c. 20 mm d. 30 mm

40. For double Insertion, general Lift value in PSC sleeper should exceed

- a. 50 mm
- b. 100 mm
- c. 20 mm
- d. 30 mm

41. In smoothening mode, general lift over the Base rail is generally

- a. fixed
- b. varies
- c. Fixed or varies
- d. None of these

42. In smoothening mode, Longitudinal level and Cross-level are corrected

- a. completely
- b. Not completely
- c. Cannot say
- d. None of these

43. In Design or Precision mode, is fed by general lift potentiometer over base rail.

- a. General lift
- b. Target height
- c. slew
- d. Versine

44. Track Machines are equipped with IC engines.

What stands for IC?

- a) Inter connected
- b) Integrated Circuit
- c) Internal Combustion
- d) Industrial Certified

45. BCM engines are

- a) Air cool
- b) Water cool
- c) Both of them
- d) None of them

46. Fuel pump is used in _____ engines

- a) Duetz
- b) MWM
- c) SUN
- d) All of them

47. Function of turbo charger is

- a) To cool the engine
- b) To increase engine RPM
- c) To increase HP of engine
- d) none of these

48. Self-starter is used to

- a) To start the engine
- b) To run the engine
- c) To charge battery
- d) none of these

49. Alternator is used to

- a) To start the engine
- b) To run the engine
- c) To charge battery
- d) none of these

50. Turbo charger runs

- a) At engine RPM
- b) At below 100000 RPM
- c) Above 100000 RPM
- d) None of these

51. Thermostat is used to _____ water into radiator.

- a) allow
- b) restrict
- c) both of them
- d) None of them