

QUESTION BANK
FOR
(CHIEF LOCO
INSPECTOR)

DTC AJNI

TRO/NGP

Conventional loco

part -1

OBJECTIVE TYPE QUESTIONS:

1. Current is collected from OHE to A.C.loco through ()
 - (a) Transformer
 - (b) circuit breaker
 - (c) Pantograph
 - (d) servo motor

2. Taps on auto winding of TFP are provided for ()
 - (a) speed control
 - (b) protection from surges
 - (c) shorting of windings
 - (d) avoiding overloading of TFP

3. QOP relay is used to detect ()
 - (a) Earth fault in auxiliary circuit
 - (b) Over current
 - (c) Earth fault in power circuit
 - (d) Surges

4. For converting a.c. to d.c., following equipment is used in locos ()
 - (a) Transformer
 - (b) Smoothing reactor
 - (c) Silicon Rectifier
 - (d) Circuit breaker

5. Which one of the following is not a safety item ()

- (a) ACP Unit
 - (b) Hand brake
 - (c) Head Light
 - (d) Corridor Light
6. The maximum rpm of a Hitachi Traction Motor is ()
(a) 895 rpm (b) 1000 rpm (c) 1100 rpm (d) 1250 rpm
7. MVRH is a ()
(a) D.C.Motor
(b) A.C.Motor
(c) Universal Motor
8. Wheel slipping occurs ()
a) due to Down gradient
b) due to poor brake power
c) If applied tractive effort is more than adhesive weight of loco
d) none of the above
9. KVA rating of TFP used in WAG-7 & WAP4 locos is ()
a) 3460 KVA
b) 3900 KVA
c) 5400 KVA
d) 6000 KVA
10. In Traction Transformer ()
a) A33-A0 is Auto Transfer Winding
b) A34-A0 is Primary Winding
c) a0 – a1 is Auxiliary Winding
d) All are correct
11. ARNO is used for ()
a) Cooling T.M.
b) Converting 1Φ to 3Φ a.c.
c) cooling TFP oil
d) Converting a.c. to d.c.

12. For changing direction of loco movement, following is used ()
- a) CTF
 - b) Reverser
 - c) Shunting contactor
 - d) Pantograph
13. ()
- In WAG-7 loco is used
- a) SL-30
 - b) SL-40
 - c) SL-42
 - d) None
14. Twin Beam Head Light bulb has twin filament of ()
- a) 100 and 110 watts
 - b) 100 and 120 watts
 - c) 100 and 90 watts
 - d) 80 and 100 watts
15. BA are used for powering ()
- a) ARNO convertor
 - b) Traction Motor (TM)
 - c) Cab heater
 - d) Auxiliary compressor (MCPA)
16. Hydrometer is used for measuring ()
- a) level of electrolyte in BA
 - b) total charge stored in BS
 - c) specific gravity of electrolyte
 - d) terminal voltage of BA
17. Maximum air pressure in electric loco brake cylinder with A9 application is ()
- a) 2.5 kg/cm²
 - b) 3.5 kg/cm²
 - c) 2.0 kg/cm²
 - d) 5.0 kg/cm²

18. Disturbance of neutral axis of rocker ring in a DC motor will result in ()

- a) poor commutation
- b) increase in voltage
- c) jamming of bearing

19. Gear ratio of WAP4 loco is _____ ()

- a) 18 : 14
- b) 23 : 58
- c) 17 : 57
- d) 16 : 65

20. Maximum allowed wheel dia variation in service ()

- a) on same axle is 2.5 mm
- b) one same bogie is 8 mm
- c) Both (a) & (b)
- d) None

21. ()

The requisition No. for a N.S.item is

- a) S 1313
- b) S 1302
- c) S 1315
- d) S 1305

22. Maximum Tractive effort of a loco is the ()

- a) maximum power developed by the loco
- b) maximum torque developed by the loco at 50 KMPH
- c) maximum starting torque developed by the loco without wheel slipping
- d) None is correct

23. Relay to detect abnormalities in TFP is ()

- (a) QRSI
- (b) QOP
- (c) QLM

(d) QOA

24. For protection of traction motors against over voltage, following relay is used ()

- (a) QOP (b) Q20
(c) QD (d) QRSI

25. AFL circuit works in case of ()

- a) train parting
b) chain pulling
c) brake application
d) both (a) & (b)

26. The insulation class of an auxiliary motor is ()

- (a) H Class
(b) B Class
(c) F Class
(d) C Class

27. Panto raising time is adjusted between ()

- (a) 6 to 10 sec.
(b) 5 to 10 sec.
(c) 5 to 8 sec.
(d) None

28. For creating B.P & M.R Pressure required pneumatic brake system following equipment is used ()

- a) compressor
b) exhauster
c) VA-1B valve

d) ARNO

29. In a WAP loco, the no. of brake cylinders are ()

(a) 8 (b) 10 (c) 12 (d) 16

30. Bolster is used in the following class of locos ()

a) WAG5

b) WAM4

c) WAP4

d) WAG7

31. MU2B and F1 Selector Valves are used to isolate ()

a) rear loco

b) A9 and SA9 of rear loco

c) RSI block in MU operation

d) None of the above

32. DP Test is done to detect ()

(a) Acetylene content in oil

(b) Methane level

(c) inside void in axle

(d) surface crack

33. Field shunting in loco is done to ()

a. increase tractive effort

b. increase power of loco

c. increase speed

d. both (b) & (c) are correct

34. QLM setting of WAG-7 loco is ()
a. 9 Amp. b. 8 Amp. c. 7 Amp. d. 10 Amp.
35. Noise / vibration level of bearing is measured in ()
a. DB b. dB c. GB d. BD
36. EFDG coil of DJ in WAG-7 loco isR4 ()
a. holding coil b. closing coil c. None
d. Both (a) & (b)
37. Hitachi Traction Motor is a ()
a. 4 Pole DC Motor
b. 6 Pole AC Motor
c. 4 Pole AC Motor
d. 6 Pole DC Motor
38. In MVMT bearing used is ()
a. 6313 with C3 clearance
b. 6312 with C4 clearance
c. 6312 with C3 clearance
d. 6313 with C4 clearance
39. Minor penalties can be imposed to withhold ()
a. 2 sets of passes
b. 2 increments for one year
c. promotion for one year
d. all the above
40. Opening of the AAL Make VCB is done through ()
a. air pressure
b. charged spring

- c. both (a) & (b)
- d. none of the above.

41. What type of bearing is used in WAG-7 loco axle box? ()

- a. ball bearing
- b. roller bearing
- c. tapered bearing
- d. needle bearing

42. In a failed WAP-4 loco, it is found that in TM5 carbon brush was touching ()
to the TM body, which relay would have been operated

- a. QLM
- b. QRSI
- c. QOP1
- d. QOP2

43. What is the voltage of OHE feeding power to WAG-7 loco ()

- a. 25 KV AC
- b. 1500 V DC
- c. 11 KV AC
- d. 440 V AC

44. MVRH is provided to cool the ()

- a. Traction Motor
- b. RSI block
- c. TFP Radiator
- d. Compressor

45. What is the time interval between IA and IB schedule of WAG-7 loco is ()
..... days

- a. 45
- b. 60
- c. 90
- d. 30

46. Loco brake applieskg pressure ()

- a. 2.0
- b. 3.5
- c. 1.5
- d. 7.0

47. "Back lash" term is related to..... ()

- a. TFP
- b. Battery
- c. CBC
- d. Gears

48. There are nos. of main poles (MP) in a Hitachi TM. ()
a. 6 b. 4 c. 2 d.12
49. The lubricant used in suspension bearing of a TAO motor is..... ()
a. 170-T b. SP57 c. Servo RR3 d. Mineral oil
50. Multimeter is used to measure ()
a. voltage only
b. current only
c. resistance only
d. all of the above
51. WAG-7 loco is using type of bogies ()
a. flexicoil co-co
b. fabricated co-co
c. trimounted co-co
d. any of the above
52. Loco TFP has Nos. of taps for voltage control ()
a. 16 b. 32 c. 12 d. depending upon the type of loco
53. What is the ratio of percentage load sharing between center pivot and side bearers in WAG-5 loco ()
a. 60:40 b. 50:50 c. 40:60 d.70:30
54. What are the time delays of Q118, Q44 and QTD Relays? ()
a. 5 sec, 5 sec, 1 sec
b. 5 sec, 5 sec, 5 sec
c. 5 sec, 0.6 sec, 5 sec
d. 1 sec, 0.6 sec, 5 sec

55. Sand is used in locomotives to avoid..... ()

- a. wheel skidding
- b. wheel slipping
- c. brake failure
- d. all the above

56. Leakage Test is conducted to find out leakage in ()

- a. CP
- b. MR
- c. BP
- d. whole loco.

Conventional loco

part -2

OBJECTIVE TYPE QUESTIONS:

1. Safety Relays are

- a) All DI type
- b) All DU type
- c) All DI & DU type
- d) NONE

2. DI Type safety relays are

- a) QOP, QOA
- b) QRSI, QLA, QLM
- c) QOP, QPDJ
- d) Q44, Q118

3. DU type safety relays are

- a) QOP, QOA
- b) QLM, QRSI
- c) Q44
- d) Q118

4. CT ratio of RSILM:_____

- a) 1000 : 5
- b) 2000 : 5
- c) 4000 : 5
- d) 1000 : 15

5. CT ratio of TFILM

- a) 50 : 5
- b) 100 : 5
- c) 250 : 5
- d) 200 : 5

6. Pick up voltage of Q20 in WAG5 locos:

- a) 750 V
- b) 800 V
- c) 865 V
- d) 850 V

7. While RB is in service which relay will act if any earth fault occurs in the power circuit

- a) QOP1
- b) QOP2

c) QOA d) QLM

8. The resistance value of RU in WAG locos is

a) 88 k Ω b) 100 k Ω c) 120 k Ω d) 220 k Ω

9. The resistance value of RQ20 in WAG locos or 6P locos

a) 2.4 k Ω b) 13.2 k Ω c) 24 k Ω d) 10 k Ω

10. The setting value of Q44 is

a) 1 sec b) 2 sec c) 5 sec d) 0.6 sec

11. The setting value of Q118 is

a) 2.5 sec b) 5.0 sec c) 0.6 sec d) 1.5 sec

12. In twin Beam headlight the rating of bulb is _____

a) 24V, 70/75W b) 24V, 90/100W
c) 110V, 70/75W d) 110V, 90/100W

13. The input / output voltage ratings of the DC-DC converter are:

a) 110V / 110V b) 110V/50V
c) 110V / 24V d) 110V/20V

14. In a twin beam Headlight, what is the voltage of bulb in "dimmer" operation.

a) 110V b) 55V c) 24V d) 12V

15. What is the advantage of twin beam headlights system:
- a) Headlight glows while passing on neutral section.
 - b) Headlight focusing is good.
 - c) Even one bulb fuses also, it will not effect the running of loco to destination.
 - d) All the above

16. The rating of a cab heater is.
- a) 500 Ω , 500W
 - b) 400 Ω ,500W
 - c) 100 Ω ,500W
 - d) 50 Ω ,500W

17. How many CPs are required for Air brake loco:
- (a) Minimum 2 CPs
 - (b) Maximum 2 CPs
 - (c) Minimum 3 CPs
 - (d) Maximum 3 CPs

18. Rating of MEMU transformer is
- (a) 1200KVA
 - (b) 1000KVA
 - (c) 800 KVA
 - (d) 1100KVA

19. Voltage rating of MEMU Traction Motor is
- (a) 500V
 - (b) 580V
 - (c) 535V
 - (d) 550V

20. New wheel diameter of MEMU Motor Coach/Trailer coach
- (a) 900 mm
 - (b) 950 mm
 - (c) 850 mm
 - (d) 952 mm

21. Total auxiliary motors in MEMU motor coach
- (a) 5
 - (b) 4
 - (c) 3
 - (d) 2

22. Total No.of traction motors in a MEMU/EMU Motor Coach
- (a) 2
 - (b) 3
 - (c) 4
 - (d) 5

23. The Safety device provided in MEMU for detecting gassing and the protection of

Transformer is:

- (a) OLP (b) TTR (c) BUD (d) PRV

24. The Safety device fitted to the MEMU Transformer for its protection against

Explosion.

- (a) PRV (b) BUD (c) OLP (d) TTR

25. Maximum acceleration of MEMU, on level tangent track with crush load is:

- (a) 1.2 Kmph/Sec (b) 1.6 Kmph/Sec (c) 1.8 Kmph/sec (d) 1.4 Kmph/Sec

26. The Ampere hour capacity of MEMU battery is

- (a) 100 AH (b) 75 AH (c) 90AH (d) 80 AH

27. Tractive effort of MEMU motor coach with 3 TCs at the time of starting

- (a) 10 Tonnes (b) 9.6 tonnes (c) 8 Tonnes (d) 11 Tonnes.

28. What is class of Insulation specified for 180 degree temperature:

- (a) B class (b) A class (c) H class (d) Y class.

29. The object of sanders is to

- (a) Improve the adhesion (b) Avoid wheel slipping

- (c) To have momentum (d) All the above

30. Continuous tractive effort at wheel rim of WAG7 loco is

- (a) 34.3 tonnes (b) 30 tonnes (c) 20.5 tonnes (d) 19.0 Tonnes:

31. The specific gravity of Electrolyte of a lead acid battery at 27 °C should be

- (a) 1.250 (b) 1.200 (c) 1.100 (d) 1.180

32. Specific gravity of electrolyte is measured using.
(a) Thermometer (b) Hygrometer (c) Hydrometer (d) Lactometer
33. DC series motor is used for traction purpose because:
(a) High speed (b) High starting torque (c) Low starting torque
(d) Constant torque at all speeds.
34. Horse power of a TAO 659 traction motor.

(a) 700 HP (b) 600 HP (c) 770 HP (d) 800 HP
35. Size of each cable connected to Traction Motor is
(a) 120 Sq.mm (b) 150 Sq.mm (c) 200 Sq.mm (d) 270 Sq.mm
41. Size of each cable connected to MVMT1/MVMT2/MRH in AC locomotive is
(a) 3 sq.mm (b) 10 sq.mm (c) 25 sq.mm (d) 50 Sq.mm
42. Size of each cable connected to MCP/MPH is
(a) 3 Sq.mm (b) 10 Sq.mm (c) 25 Sq.mm (d) 50 Sq.mm
43. Size of cable used in control circuits is
(a) 3 Sq.mm (b) 10 Sq.mm (c) 25 Sq.mm (d) 50 Sq.mm
44. Size of cable connected to Arno
(a) 100 Sq.mm (b) 150 Sq.mm (c) 120 Sq.mm (d) 150 or 120 Sq.mm
45. Breaking excitation transformer purpose is to.
(a) Excitation of armature (b) Excitation of field (c) Excitation of both (d) Excitation of TFP

46. BP1 DJ is *pressed*

- (a) To starts the loco (b) To stop the loco (c) To close DJ (d) To trip DJ

47. HQOP & HQOA are

- (a) Earth fault relay by pass switches (b) Earth fault relay isolation switches
(c) Earth fault relays (d) All the above.

48. Flasher light is provided in loco/MEMU

- (a) To communicate with the loco driver coming in the opposite direction about any difficulty.
(b) To communicate with the loco driver coming in the same direction, about any Difficulty.
(c) To inform the opposite coming loco driver about the abnormality noticed about OHE/Track.
(d) All above.

49. EM contactor pressure is

- (a) 650 to 800 gms (b) 600 to 700 gms (c) 600 to 750 gms (d) 600 to 800 gms

50. Electrolyte used in a lead acid battery is

- (a) Concentrated sulphuric acid (b) Diluted sulphuric acid (c) Nitric acid
(d) None of above.

51. The active material used for positive plate of lead acid battery is ----(lead peroxide)

52. The fuse rating of CCPT is

- (a) 6 AMPS (B) 10 Amps (c) 16 Amps (d) 35 Amps

53. CHBA function is normally

- a) To supply the DC charging current to batteries
- b) To supply the D.C. load current to various control circuits
- c) To supply the current to Auxiliary motors
- d) Both (a) & (b)

54. The purpose to RSI Block is

- (a) To convert AC to DC
- (b) To convert DC to AC
- (c) To generate AC
- (d) To generate DC

55. Battery negative is connected to loco body through

- (a) HQOP
- (b) HQOA
- (c) HOBA
- (d) HQCVAR

56. MVMT1/MVMT2 are meant for cooling of

- (a) Armature of TM
- (b) Field coils of TM
- (c) Stator of TM
- (d) All of these

57. Shunting contactors are provided in the loco for the purpose of

- (a) Increasing the speed
- (b) To decrease the speed
- (c) To stabilize the speed
- (d) to stop the train.

58. The speed control method used in AC locomotive/MEMU

- (a) Voltage control
- (b) Current control
- (c) Rheostatic control
- (d) Regenerative control

59. The type of Electric braking system used in AC locomotive is
- (a) Regenerative (b) Rheostatic
- (c) Both
60. Instrument used to measure contact resistance
- a) Whetstone bridge b) Multi meter c) Micro ohmmeter.
61. Action in lead acid cell
- a) Reversible b) Irreversible c) Both a&b
62. Purpose of inter pole in the traction motor
- a) To avoid sparking on the commutator b) To avoid bad commutation
- c) To divert field current
63. During rheostat braking traction motor works as a
- a) Generator b) Converter c) Motor d) Inverter
64. Dual speed of PV's obtained by
- a) Changing frequency b) Changing poles c) By inserting resistance.
65. The relay QOP/QOA is the relays of sensing
- a) Voltage b) Current c) Resistance.
- 66) IN MEMU, ABB Governor is for
- a) Panto reservoir pipe
- b) MR reservoir
- c) Aux reservoir
- d) Bp reservoir
- e) None of the above
- 67) IN MEMU the setting of ABB Governor cut in /cut out is-
- a) 6.0/7.0kg/cm²
- b) 8.0/9.0 kg/cm²
- c) 5.6/4.5kg/cm²
- d) 4.0/5.0 kg/cm²
- e) None of the above

68) In MEMU the setting of MCP Governor cut in /cut out is-

- a) 5.0/6.0 kg/cm²
- b) 7.0/8.0 kg/cm²
- c) 4.5/5.5 kg/cm²
- d) 6.0/7.0 kg/cm²
- e) None of the above

69) IN MEMU one of the following is a part of brake controller

- a) Tripple valve
- b) Equalising discharge valve
- c) Safety valve
- d) Application magnet valve
- e) None of the above

70) IN MEMU one of the following is a part of EP unit

- a) Equalizing valve
- b) Triple valve
- c) Puppet valve
- d) Self lapping cylinder
- e) None of the above
- f)

71)IN MEMU the setting of equipment governor cut in/cut out is

- g) 4.5/5.5 kg/cm²
- h) 2.2/3.8 kg/cm²
- i) 4.2/3.3 kg/cm²
- j) 4.4/5.2 kg/cm²
- k) None of the above

71) IN MEMU the setting of control governor cut in/cut out is

- a) 5.5/4.3 kg/cm²
- b) 3.3/4.2 kg/cm²
- c) 3.2/4.8kg/cm²
- d) 5.5/6.5 kg/cm²

e) None of the above

72) IN MEMU the BC Pressure is -

- a) 2.0 kg/cm²
- b) 3.5 kg/cm²
- c) 1.5 kg/cm²
- d) 4.0 kg/cm²
- e)None of the above

74) IN MEMU the MR Pressure is

- a) 5.0 kg/cm²
- b) 7.0 kg/cm²
- c) 6.0 kg/cm²
- d) 8.0 kg/cm²
- e) None of the above

75). IN WAG-7 BP pressure not building up

- a) A9 defective
- b) C3W defective
- c) SA9 defective
- d) R6
- e) None of the above

76) .IN WAG7 MR pressure not building up

- a) A8cock closed condition
- b) Bogie cocks closed condition
- c) VEAD cock closed
- d) MR cock closed
- e) None of the above

77) IN WAG7 MCPA pressure not building up on run

- a) VESA air leaking
- b) VEAD air leaking
- c) IP (E) air leaking
- d) DJ oil separator drain cock closed
- e) None

78). In MU loco driver experienced rear loco brakes are not applying found the following trouble

- a) MU2B leading loco in leading
- b) MU2B tailing loco in leading
- c) A1 differential cock closed
- d) SA9 problem
- e) None

79). Vacuum dropping suddenly on run. Driver will check for below

- a) A9 defective
- b) Train parted
- c) VER (M) defective
- d) VA1B defective
- e) All the above

80) Duplex check valve defective in WAG7 loco which resulted to

- a) Horn/wiper not working
- b) Horn / sanders not working
- c) Horn/FP not working
- d) All the above
- e) None of above

3-PHASE LOCO

(part -1)

OBJECTIVE TYPE QUESTIONS:

1. Different gear ratios in WAG-9 loco is

- a. 15:77, 18:64
- b. 15:77, 20:72
- c. 15:77, 21:107
- d. 15:77, 17:77

2. Maximum braking effort of WAP-7 Loco is

- a. 260KN
- b. 160KN
- c. 182KN
- d. None of the above

3. ZV-ZV Valve sets consists of

- a. 2 GTOs and 2 Diodes
- b. 4 GTOs and 4 Diodes
- c. 5 GTOs and 3 Diodes
- d. 5 GTOs and 3 Diodes

4. Voltage applied to Traction Motors (Phase to Phase) in WAG-9 loco is

- a. 2180 Volts
- b. 2800 Volts
- c. 750 Volts
- d. None of the above

5. If ZBAN is switched "ON"

- a. FP drops to zero
- b. Over charging of BP takes place
- b. BP drops to zero
- d. BP & FP drops to zero

6. Machine Room blower-I receives supply from

- a. BUR-1
- b. BUR-2
- c. 415 Volts directly
- d. 110Volts directly from Transformer

7. Machine Room blower works

- a. In cooling mode
- b. In driving mode
- c. In cooling and Driving modes
- d. In Driving and self hold mode

8. Minimum Voltage relay in 3 phase locos is for

- a. Sensing of OHE Voltage in driving mode
- b. Sensing of OHE Voltage in Cooling mode
- c. Voltage protection in self hold mode
- d. Over voltage protection in simulation mode

9. Purpose of using single phase machine Room blower in 3 phase locos

- a. Facilitating to work in driving mode for cooling machine room
- b. Facilitating to work in self hold mode for cooling machine room
- c. Facilitating to work in simulation mode for cooling machine room
- d. Facilitating to work in cooling mode for cooling machine room

10. Minimum voltage relay in three phase locos

- a. 86 in SB-2
- b. 78 in SB-1
- c. 86 in SB-1
- d. 78 in SB-2

11. For working in cooling mode BL is to be operated from

- a. D-OFF-C
- b. OFF-C
- c. D-OFF-C-OFF-C
- d. b & c

12. Continuous glowing of LSFI indicates
- a. Any of the sub-system is isolated
 - b. A priority-II fault
 - c. Any auxiliary motor is isolated
 - d. None of the above

13. DC Link voltage of Traction Converter is

- a. 1172 Volts
 - b. 2180 Volts
 - c. 2800 Volts
 - d. None of the above
- b. Inching mode

14. The brake application time through DBC in WAG-9 locos is

- a. 06 to 09 secs
- b. 10 to 15 secs
- c. 15 to 20 secs
- d. none of the above

15. Number of electronic cards available in E-70 panel

- a. 4
- b. 6
- c. 2
- d. 3

16. The pressure switch associated with working of Baby compressor is

- a. Pn 26
- b. Pn 60
- c. Pn 59
- d. Pn 6

17. The number of PBU available in WAP-7 locos is

- a. 04
- b. 12
- c. 02
- d. 08

18. The number of sanders to be kept in service in WAP-7 locos is

- a. 08
- b. 12
- c. 04
- d. None

19. In E-70 brake system locos the coc-47 is used for

- a. Moving the loco dead
- b. Application of brakes through A9

- c. Operation/Isolation of PBU d. Operation/Isolation of sanders

20. The size of choke available in sander circuit in WAG-9/WAP-7 locos is

- a. 5.5mm b. 2mm
c. 3 mm d. 4mm

21. The switch used for isolation of vigilance control device is

- a. 125 b. 154
c. 160 d. 237.1

22. The operating pressure of contactors in TC1, 2 & HF

- a. 10kg/sqcm b. 6kg/sqcm
c. 5kg/sqcm d. 8kg/sqcm

23. The pressure switch used for monitoring working of pantograph is

- a. Pn 44 b. Pn 60
c. Pn 09 d. Pn 26

24. After completion of self-test in 3Ø locomotives following node will appear

- a. 590 b. 570
c. 550 d. 504

25. Conversion of BP control pressure into electrical signal in 3Ø locomotives is done by_____.

- a. Pressure sensor b. Pressure switch
c. Pressure transducer d. None of the above

26. 260 indicate _____equipment.

- a. Filter block b. SR rack
c. Pneumatic panel d. BUR

27. Valve set 13 consists of _____number of GTOs.

- a. 2 b. 1

- c. 4
- d. 3

28. MUB GTO is present in _____ valve set.

- a. 12/1
- b. 12/2
- c. 12/2
- d. 13/1

29. MU is not possible if _____ card is defective in any one of the 3Ø locomotives.

- a. SLG1
- b. ALG1
- c. FLG1
- d. SLG2

30. If MVR is not picking up then_____.

- a. Traction not possible
- b. RB not possible
- c. Cooling mode not possible
- d. Driving mode not possible

31. _____ & _____ processor cards present only in VCU1 and VCU2 respectively.

- a. FBV, DIA
- b. STB, FBV
- c. ZBV, DIA
- d. STB, ZBV

32. _____ no. of processor cards is interchangeable between VCU1 and VCU2 after reloading the appropriate software.

- a. 2
- b. 5
- c. 6
- d. 3

33. SLG1 & SLG2 is interchangeable by changing_____.

- a. Hex address & Software
- b. Software
- c. Hex address only
- d. Not interchangeable

c. 2 & 3

d. 1 & 2

39. Correct arrangement of foot switches in 3Ø locomotives from Left to right in loco cab is_____.

- | | L | M | R |
|----|------|------|------|
| a. | PVCD | PVEF | PSA |
| b. | PSA | PVCD | PVEF |
| c. | PVEF | PSA | PVCD |
| d. | PSA | PVEF | PVCD |

40. In SR1 rack of 3Ø locomotives, speed sensor connected to Sub-D "C" senses speed of _____.

- a. TM 3 b. TM 2 c. TM 1 d. TM 4

41. Following combinations of gear ratios are used for WAG9 locomotive_____.

- | | |
|-------------------|-------------------|
| a. 23:58 & 20:72 | b. 23:72 & 20:58 |
| c. 20:72 & 21:107 | d. 15:77 & 21:107 |

42. For performing shunting _____ switch to be kept in _____ position and the speed limit is _____ kmph.

- a. 154, 'I', 10 kmph
b. 152, '0", 5 kmph
c. 160, 'I', 15 kmph
d. 162, '0", 5 kmph

43. While working loco in _____ mode, VCD need not be acknowledged.

- a. Shunting b. Constant Speed c. Inching mode d. Braking mode

44. Which of the following statement is correct.

- a) Teeth of bull gear of WAG9 \leq Teeth of bull gear of WAP7
b) Teeth of pinion of WAG9 $>$ Teeth of pinion of WAP7
c) Teeth of bull gear of WAG9 $>$ Teeth of bull gear of WAP7

d) None of the above

45. The number of teeth on the M/s ARC make Hall effect speed sensor ring are_____.

- a. 30
- b. 120
- c. 60
- d. 90

46. If the TM rotates at a speed of 600 rpm then the frequency of pulse generated by ARC make speed sensor is_____.

- a. 1.8 KHz
- b. 0.6KHz
- c. 0.3 KHz
- d. 1.2 KHz

47. Consider following statements

1. No Inductance variation between different phases of motor
2. Low IR value
3. Low Temp. rise above ambient during run test
4. Low dB level recorded during run test

- a. 1, 2 & 3
- b. 2, 3 & 4
- c. 1, 3 & 4
- d. 1, 2 & 4

48. Contactor 52/2 in auxiliary circuit is used for redistribution of_____.

- a. MRB
- b. SCTMB
- c. TMB
- d. Battery Charger

49. If any one the BURs isolated which of the following indicates correct position of 52.4/1,

52.4/2, 52.5/1 & 52.5/2 Contactors.

- | | 52.4/1 | 52.4/2 | 52.5/1 | 52.5/2 |
|----|--------|--------|--------|--------|
| a. | close | close | close | open |
| b. | close | open | close | open |
| c. | close | open | close | close |
| d. | close | open | open | close |

50. Which of the following statements is correct?

- a. 89.5 – Earth fault relay in auxiliary converter and it is located in HB1 panel
- b. 89.5 – Earth fault relay in 415/110v and it is located in HB2 panel
- c. 89.5 – Earth fault relay in auxiliary converter and it is located in HB2 panel
- d. 89.5 – Earth fault relay in 415/110v and it is located in HB1 panel

51. 24V and 48V DC-DC converter feeds _____ and _____ respectively.

- a. Electronic rack cooling fan & Indication lamps
- b. Indication lamps & Electronic rack cooling fan
- c. Indication lamps & Head light
- d. Head light & Indication lamps

52. Transformer in 3Ø locomotives is having _____ number of windings.

- a. 5
- b. 6
- c. 7
- d. 8

53. MCB for machine room lightning is _____.

- a. 310.1/1
- b. 310.7
- c. 338.1
- d. 310.4

54. _____ number of change over contactors are provided in auxiliary circuit of 3Ø locomotives.

- a. 6
- b. 9
- c. 10
- d. 8

55. Which of the following is not a valid zinfo for "ASC1:0082 PS fault storage GBC".

- a. 1106
- b. 120D
- c. 130E
- d. 1406

3- PHASE LOCO (PART-2)

OBJECTIVE TYPE QUESTIONS:

1. Three phase loco works on the principle of ()
a. VVVF **b.** VFVF
c. VVVV **d.** None of the above
2. WAG 9 loco is fitted with type of bogie. ()
a. Bo-Bo flexi coil **b.** Co-Co Tri mount
c. Co-Co flexi coil **d.** Co-Co tetra mount high adhesion
3. Three phase loco is provided with number of roof bars. ()
a. 2 **b.** 3
c. 4 **d.** 3+3
4. SS 06 belongs to sub system. ()
a. Auxiliary converter No. 1 **b.** Auxiliary converter No. 2
c. Auxiliary converter No. 3 **d.** Traction converter No. 1
5. To isolate panto No. 1 keep panto selector switch in position. ()
a. Auto **b.** I
c. II **d.** I & II
6. To put on flasher light to be operated. ()
a. AFL **b.** BPFL
c. ZFL **d.** Auto brake
7. SS 03 belongs to sub system. ()
a. Traction bogie 1 **b.** Traction bogie 2
c. Main power **d.** Harmonic filter
8. Three phase scavenging blower filters dust from ()
a. Oil cooling blower **b.** Bogie blower

- c.** Machine room blower **d.** Oil cooling blower & Bogie blower
- 9.** Parking brake facility is available to wheels in WAG 9 loco. ()
- a.** 1, 4, 5 & 8 **b.** 2, 6, 7 & 11
- c.** 2 & 11 **d.** 1, 6, 7 & 12
- 10.** Maximum braking effort of WAG 9 is ()
- a.** 160 KN **b.** 182 KN
- c.** 260 KN **d.** 258 KN
- 11.** SS 01 belongs to sub system. ()
- a.** Traction bogie 1 **b.** Traction bogie 2
- c.** Main power **d.** Harmonic filter
- 12.** Loco grounding key is ()
- a.** Solenoid valve No. 30 **b.** IG 68
- c.** IG 38 **d.** E 70
- 13.** For charging of BP pressure COC to be kept open. ()
- a.** A 8 COC **b.** 70 COC
- c.** 74 COC **d.** 47 COC
- 14.** In train engine, if ZBAN is switched ON, happens. ()
- a.** BP pressure drops to 'O' **b.** FP pressure drops to 'O'
- c.** BC pressure raises to 3.5 kg/cm² **d.** None of the above
- 15.** In WAG 9, maximum brake cylinder pressure with direct brake is ()
- a.** 1.8 kg/cm² **b.** 2.5 kg/cm²
- c.** 5 kg/cm² **d.** 3.5 kg/cm²
- 16.** SS 02 belongs to sub system. ()
- a.** Traction bogie 1 **b.** Traction bogie 2
- c.** Main power **d.** Harmonic filter

- a. I, II b. Norm, I, II and I & II
c. Norm d. 0 & 1
26. SS 04 belongs to sub system. ()
- a. Traction bogie 1 b. Traction bogie 2
c. Main power d. Harmonic filter
27. In WAG 9, earth return bushes are connected to axle boxes. ()
- a. 1, 4, 5 & 8 b. 2, 6, 7 & 11
c. 2 & 11 d. 1, 6, 7 & 12
28. WAG 9 have number of dampers in primary suspension. ()
- a. 32 b. 20
c. 64 d. 40
29. SS 08 belongs to sub system. ()
- a. Auxiliary converter No. 1 b. Auxiliary converter No. 2
c. Auxiliary converter No. 3 d. Battery
30. Auto brake valve can be locked or unlocked in position of the handle in knorr brake loco. ()
- a. Emergency b. Neutral
c. Full service d. Minimum reduction
31. WAP 5 have number of dampers in primary suspension. ()
- a. 8 b. 16
c. 4 d. 32
32. Totally, three phase loco have number of additional COCs. ()
- a. 4 b. 8
c. 16 d. 2

33. To isolate Auxiliary converter No. 2, open MCB No. located in SB 2. ()
- a. 127.22/1 b. 127.22/2
c. 127.22/3 d. 127.2
34. In WAG 9/WAP 7, location of air dryer is ()
- a. Behind MCP 1 in left side b. Between two trucks
c. Behind cattle guard 1 in left side d. Behind cattle guard 1 in right side
35. SS 05 belongs to sub system. ()
- a. Harmonic filter b. Hotel load
c. Battery d. Batteries
36. When parking brakes are applied BP pressure drops up to kg/cm^2 in knorr ()
brake loco.
- a. 3 kg/cm^2 b. 3.8 kg/cm^2
c. 3.5 kg/cm^2 d. $2 \text{ to } 3 \text{ kg/cm}^2$
37. In MU operation position, Constant Speed Control in slave loco is ()
- a. In service b. Partially in service
c. Will not be in service d. None of the above
38. WAG 9 is provided with No. of direct brake cylinders and No. of ()
parking brake cylinders.
- a. 12 & 4 b. 12 & 12
c. 4 & 12 d. 12 & 6
39. Auto brake valve have number of positions in knorr brake loco. ()
- a. 5 b. 6
c. 2 d. 4
40. Maximum tractive effort of WAP 5 is KN. ()
- a. 258 KN b. 322.6 KN

- c. 458 KN d. 160 KN
41. WAP 7 loco is fitted with type of traction motors. ()
- a. 3 Ø Asynchronous motor b. TAO 659
c. Hitachi d. Hitachi or TAO 659
42. Maximum brake cylinder pressure with direct brake in WAP 5 is ()
- a. 1.8 Kg/cm² b. 3.5 Kg/cm²
c. 5 Kg/cm² d. 2.5 Kg/cm²
43. WAG 9/ WAP 7 have number of brake blocks. ()
- a. 12 b. 24
c. 48 d. 64
44. Procedure of grounding three Ø loco is ()
- a. Stop the train, trip VCB, lower panto b. Rotate IG-38 in anti clockwise direction,
and switch OFF CE extract key.
c. Insert and operate it in HOM box, and d. All the above
turn HOM handle by 180⁰.
45. When three phase loco is attached as dead and if parking brakes are released, parking ()
brake pressure gauge reads kg/cm².
- a. 0 Kg/cm² b. 4 Kg/cm²
c. 5 Kg/cm² d. 6 Kg/cm²
46. Continuous glowing of LSFI indicates ()
- a. Priority 1 fault b. One of the sub system is isolated
c. Priority 2 fault d. Priority 1 fault or Priority 2 fault
47. Position of CE during cab changing is ()
- a. OFF b. ON

- c. Self hold mode
d. None of the above
48. Procedure of re-setting of MG make MCB is ()
a. Switch OFF CE
b. Put OFF (Down) and ON (Up) the MCB
c. Switch ON CE
d. All the above
49. To isolate Auxiliary converter No. 3 open MCB No. located in SB 2. ()
a. 127.22/1
b. 127.22/2
c. 127.22/3
d. 127.3
50. Location of BPFL is ()
a. FLCU
b. Panel A
c. Panel B
d. Panel C
51. During self hold mode, CE will remain in ON for minutes. ()
a. 15
b. 10
c. 20
d. Will not switch OFF
52. To move 3 Ø loco as live or dead ensure brakes are released. ()
a. Parking brakes
b. Direct brakes
c. Parking and Direct brakes
d. None of the above
53. If ATDC (Throttle) is failed, keep switch in position. ()
a. 154, 0
b. 152, 1
c. 152, 0
d. 160, 1

54. When parking brakes are applied parking brake pressure gauge reads ()
a. 0 Kg/cm^2 b. 4 Kg/cm^2
c. 3.5 Kg/cm^2 d. 6 Kg/cm^2
55. When knorr brake loco is attached as banker keep mode switch in.....position. ()
a. HLPR b. Lead
c. Trail d. Test
56. SS 15 belongs to sub system. ()
a. Cab 2 b. Fire detection
c. Memotel (Speedometer) d. Processor FLG1
57. Location of Emergency stop push button in three Ø loco is ()
a. Panel A b. Panel B
c. Panel C d. Panel D
58. Minimum voltage relay in three Ø loco is ()
a. 78 in SB 1 b. 78 in SB 2
c. 86 in SB 2 d. 86 in SB 1
59. WAP 7 have number of dampers in primary suspension. ()
a. 8 b. 12
c. 16 d. 20
60. WAP 5 loco is provided with No. of direct brake cylinders and No. of ()
parking brake cylinders.
a. 8 & 4 b. 12 & 12
c. 4 & 8 d. 12 & 6
61. Horse Power of WAG 9 loco is ()
a. 5440 HP b. 5000 HP
c. 8000 HP d. 6120 HP

62. Specialty of knorr brake loco is ()
- a. There are no BE in loco b. Though BE failed can work the train
- c. BE will not fail d. None of the above
63. MPS of WAP 7 loco is ()
- a. 100 Kmph. b. 120 Kmph.
- c. 130 Kmph. d. 160 Kmph.
64. While working with MU, slave loco VCB will close with delay of ()
- a. 5 Seconds b. 1 Second
- c. 1 Minute d. 0.5 Seconds
65. WAG 9/WAP 7 have number of dampers. ()
- a. 16 Dampers. b. 20 Dampers.
- c. 40 Dampers. d. 10 Dampers.
66. Three phase loco is provided with number of auxiliary converter(s). ()
- a. 1 b. 2
- c. 3 d. 4
67. When harmonic filter is isolated, speed of the train is restricted to ()
- a. 60 Kmph. b. 40 Kmph.
- c. 25 Kmph. d. No such restriction
68. WAP 5 loco is provided with type of bogie. ()
- a. Bo-Bo flexi coil b. Co-Co Tri mount
- c. Co-Co flexi coil d. Co-Co tetra mount high adhesion
69. To raise the pantograph, ensure node information on screen. ()
- a. FLG 504 b. FLG 550
- c. FLG 570 d. FLG 590
70. In modified WAP 7 loco, wheels are provided with parking brakes. ()
- a. 2, 6, 7 & 11 b. 2 & 11

- c. 1, 4, 5 & 8 d. 6 & 7
71. Three Ø loco have No. of 3 phase auxiliary motors in under frame. ()
- a. 2 b. 4
- c. 12 d. 8
72. In three phase loco head light works with volts of supply. ()
- a. 110 Volts DC b. 110 Volts AC
- c. 24 Volts DC d. 12 Volts DC
73. Potential transformer supply is given to ()
- a. MCE b. U1 & U2 meters
- c. MVR 86 d. Above all
74. Location of Bogie blower No. 2 is ()
- a. Machine room No. 1 b. Machine room No. 2
- c. Under machine room No. 1 d. Under machine room No. 2
75. Maximum voltage of traction motor of three Ø loco is ()
- a. 2180 Volts. b. 750 Volts.
- c. 4360 Volts. d. 178 Volts.
76. If RS pressure is below 5.6 Kg/cm^2 and MCPs are not working, MCPA starts automatically provided BL key is in Position. ()
- a. C b. D
- c. C or D d. None of the above
77. From Cab 1, if both head lights are not working check ()
- a. MCB No. 310.1/1 in SB 1. b. MCB No. 310.1/1 in SB 2.
- c. MCB No. 310.1/2 in SB 1. d. MCB No. 112.1 in SB 2.
78. Before operating throttle, ensure node information on screen. ()

- a.** FLG 504 **b.** FLG 550
- c.** FLG 570 **d.** FLG 590
- 79.** In proportional working, maximum BC pressure in WAP 5 loco is ()
- a.** 2.5 Kg/cm^2 **b.** 3.5 Kg/cm^2
- c.** 1.8 Kg/cm^2 **d.** 5 Kg/cm^2
- 80.** When panto is raised and DJ is not closed CE will switch OFF after ()
- a.** 10 Minutes **b.** 15 Minutes
- c.** Immediately **d.** CE will not switch OFF
- 81.** WAG 9 has number of helical springs in primary suspension. ()
- a.** 8 **b.** 16
- c.** 4 **d.** 32
- 82.** Loco grounding switch is ()
- a.** Blue KABA key (IG 38) **b.** BL key
- c.** HOM **d.** HPT
- 83.** Location of MCP 1 is ()
- a.** In machine room No. 1 **b.** In machine room No. 2
- c.** Below machine room No. 2 **d.** Below machine room No. 1
- 84.** Oil cooling blower cools ()
- a.** TFP oil **b.** SR oil
- c.** TFP oil & SR oil **d.** Traction motors
- 85.** Traction motors works with the principle of ()
- a.** VVVF **b.** VFVF
- c.** VVVV **d.** None of the above
- 86.** Procedure of isolating truck No. 1 is ()

- a.** Keep 154 in I position **b.** Keep 154 in II position
c. Keep 154 in Auto position **d.** Keep 154 in I & II position
- 87.** If battery voltage drops below volts for 30 seconds, P2 message appears. ()
a. 92 Volts **b.** 82 Volts
c. 90 Volts **d.** 85 Volts
- 88.** For application of parking brakes speed should be ()
a. Below 5 Kmph **b.** Above 5 Kmph
c. Below 1.5 Kmph **d.** Zero Kmph
- 89.** With application of direct brakes Traction is not possible beyond speed. ()
a. 5 Kmph **b.** 10 Kmph
c. 15 Kmph **d.** Zero Kmph
- 90.** SS 16 belongs to sub system. ()
a. Cab 2 **b.** Fire detection
c. Memotel (Speedometer) **d.** Processor FLG1
- 91.** In proportional working, maximum brake cylinder pressure in WAG 9 is ()
a. 1.8 kg/cm^2 **b.** 2.5 kg/cm^2
c. 3.5 kg/cm^2 **d.** 5 kg/cm^2
- 92.** Normal position of panto selector switch is ()
a. Norm **b.** I
c. II **d.** Auto
- 93.** Gear ratio of WAP 5 loco is ()
a. 15:77 **b.** 20:72
c. 17:35:67 **d.** 21:58
- 94.** Location of FDU is ()

- a. SB 1
c. HB 2
- b. SB 2
d. Panel 'C'
95. In WAP 5, location of air dryer is ()
a. Behind MCP 2
b. Behind Cattle guard 1 in left side
c. Behind MCP 1
d. Behind Cattle guard 1 in right side
96. Procedure of re-setting of ABB make MCB is ()
a. Switch OFF CE
b. Rotate the screw to vertical position
c. Lift the handle & Switch ON CE
d. All the above
97. Between two operations of PSA time of pause is required. ()
a. 10 to 12 Minutes
b. 10 to 12 Seconds
c. 12 to 15 Seconds
d. 30 Seconds
98. Parking brake facility is available to wheels in WAP 5 loco. ()
a. 2, 6, 7 & 11
b. 2 & 11
c. 1, 4, 5 & 8
d. 6 & 7
99. Battery voltage in three phase loco should be ()
a. Above 85 Volts
b. Above 90 Volts
c. Above 92 Volts
d. Above 110 Volts
100. Three phase loco is equipped with number of battery boxes. ()
a. 2
b. 4
c. 6
d. 32
101. WAP 5 have number of helical springs in primary suspension. ()
a. 8
b. 16
c. 4
d. 20
102. Horse power of WAP 7 is ()
a. 5440 HP
b. 5000 HP
c. 8000 HP
d. 6120 HP

- 103.** Three Ø loco is equipped with number of single Ø auxiliary motors. ()
- a.** 12
 - b.** 4
 - c.** 8
 - d.** 13
- 104.** While working with MU, if un coupling takes place between the locos, the position of ()
- slave loco is
- a.** Systematic shut down
 - b.** Only VCB trips
 - c.** VCB trips and panto lowers
 - d.** No specific action
- 105.** WAP 5 has No. of brake pads. ()
- a.** 8
 - b.** 16
 - c.** 32
 - d.** 64
- 106.** In WAP 5 loco, each wheel is provided with number of brake hanger(s). ()
- a.** 1
 - b.** 2
 - c.** 4
 - d.** 8
- 107.** To operate reverser ensure node information on screen ()
- a.** FLG 504
 - b.** FLG 550
 - c.** FLG 570
 - d.** FLG 590
- 108.** For CHBA, MCB No. is input and located in ()
- a.** 100 & 110
 - b.** 110 & 100
 - c.** 112.1 & 110
 - d.** 112 & 112.1
- 109.** If speed is more than % than MPS, audio visual indications will appear. ()
- a.** 0.5%
 - b.** 5%
 - c.** 15%
 - d.** 50%
- 110.** WAG 9/WAP 7 loco is provided with type of direct brakes. ()
- a.** Clasp
 - b.** Non-Clasp
 - c.** Disc
 - d.** None of the above

111. While working with MU, if FDU came into service in slave loco, happens in master loco. ()
- a. VCB trips
 - b. BZ-V-O-F sounds with P1 message
 - c. Only P1 message appears
 - d. None of the above
112. Over current relay in three Ø loco is ()
- a. 86
 - b. 70
 - c. 78
 - d. 74
113. If TFP oil temperature increased to⁰C for 10 seconds, loco will shut down. ()
- a. 84⁰C
 - b. 70⁰C
 - c. 80⁰C
 - d. 47⁰C
114. OHE working range of three phase loco is KV. ()
- a. 17.5 KV & 30 KV
 - b. 17 KV & 30 KV
 - c. 17.5 KV & 30.5 KV
 - d. 17 KV & 30.5 KV
115. To switch OFF control electronics procedure of operating BL key is..... ()
- a. D to OFF wait for 4 seconds
 - b. OFF to C wait for 4 seconds
 - c. C to OFF
 - d. Above all
116. SS 18 belongs to sub system. ()
- a. Fire detection
 - b. Memotel
 - c. Processor FLG 1
 - d. Processor FLG 2
117. Location of CHBA is ()
- a. Machine room No. 1
 - b. Machine room No. 2
 - c. BUR 1
 - d. BUR 2
118. For cooling mode procedure of operating BL key is ()

- a. D to OFF wait for 4 seconds b. OFF to C wait for 4 seconds
c. C to OFF then to C again d. Above all
119. On run, dropping of MR pressure drops below 6.4 kg/cm^2 causes ()
a. TE/BE needle comes to 'O' b. P1 message appears
c. Both MCPs starts d. All the above
120. Normal position of ZTEL is ()
a. ON b. OFF
c. 'Norm' d. Zero
121. To close the DJ, ensure node information on screen. ()
a. FLG 504 b. FLG 550
c. FLG 570 d. FLG 590
122. When ZTEL is switched ON tractive effort is limited to kn in WAG 9. ()
a. 0.8 to 1.5 KN b. 300 KN
c. 150 KN d. 458 KN
123. To isolate panto No. 1 keep panto selector switch in position. ()
a. Auto b. I
c. II d. I & II
124. In three Ø loco each battery box is provided with number of batteries. ()
a. 13 b. 26
c. 3 d. 39
125. MPS of WAP 5 is Kmph. ()
a. 100 b. 130
c. 140 d. 160
126. From cab 2, if both head lights are not working check MCB No. ()
a. 310.1/1 in SB 1 b. 310.1/1 in SB 2

- c. 310.1/2 in SB 1
d. 310.1/2 in SB 2
127. Actions of emergency stop push button in three Ø loco are ()
- a. VCB trips
b. Panto lowers
c. TE/BE comes to 'O'
d. All the above
128. During WAP 7 loco brake power testing, should not to move below KN. ()
- a. 100 KN
b. 150 KN
c. 300 KN
d. 125 KN
129. In dead loco, open COC for the purpose of charging auxiliary reservoir. ()
- a. 70 COC
b. 47 COC
c. 74 COC
d. 136 COC
130. While working as banker, put on Switch. ()
- a. ZTEL
b. ZBAN
c. BLHO
d. None of the above
131. Procedure of resetting VCD in WAG 9 / WAP 7 loco is ()
- a. Keep throttle in 'O'
b. Wait for 160 Seconds
c. Press BPVR
d. All the above
132. Location of MCP 2 in three Ø loco is ()
- a. Loco left side
b. Loco right side
c. Machine room No. 1
d. Machine room No. 2
133. SS 17 belongs to sub system. ()
- a. Fire detection
b. Memotel
c. Processor FLG 1
d. Processor FLG 2
134. While moving three Ø loco as dead to avoid wheel skidding ()
- a. Stop the train, trip VCB, lower panto and switch OFF CE
b. Lock 23 plunger in applied condition and release all parking BCs
c. Ensure loco brakes are released
d. All the above

- a. 5440 HP
- b. 5000 HP
- c. 8000 HP
- d. 6120 HP

143. Before nullifying CSC, observe meters and throttle. ()

- a. Ammeters
- b. Voltmeters
- c. Screen
- d. Bogie 1 & Bogie 2

144. For isolation of Auxiliary converter No. 1 trip MCB No. ()

- a. 127.22/1 in SB 1
- b. 127.22/1 in SB 2
- c. 127.22/2 in SB 1
- d. 127.22/2 in SB 2

145. VCD is required to acknowledge after attaining of kmph of train speed. ()

- a. 5 kmph
- b. 1 kmph
- c. 1.5 kmph
- d. 15 kmph

146. In WAG 9, when parking brakes are released PB gauge reads ()

- a. 5 Kg/cm²
- b. 0 Kg/cm²
- c. 6 Kg/cm²
- d. 3.5 Kg/cm²

147. During loco brake testing WAG 9 should not to move below KN. ()

- a. 100 KN
- b. 150 KN
- c. 300 KN
- d. 125 KN

148. SS 19 belongs to sub system. ()

- a. Fire detection
- b. Train bus
- c. Processor FLG 1
- d. Processor FLG 2

149. Continuous pressing of PSA for 68 seconds caused to ()

- a. Continuous sanding
- b. Penalty brakes in Dead man's mode
- c. Vigilance penalty brakes
- d. None of the above

150. CSC can be activated after attaining of kmph of train speed. ()

- a. 5 kmph
- b. 1 kmph

c. 1.5 kmph

d. 15 kmph

ESTABLISHMENT

OBJECTIVE TYPE QUESTIONS:

1. The purpose of issuing a charge-sheet to a railway servant, is: ---

- (A) to warn him to be careful in future.
- (B) to afford him an opportunity to defend himself from the accusation.
- (C) Where minor penalty is imposed affecting the pensioner benefits of the charged official.
- (D) Where services of a railway servant are to be terminated in accordance with the terms of agreement.

2. A retired railway servant may act as defense counsel.

- (A) in not more than 2 cases.
- (B) in not more than 5 cases.
- (C) in any number of cases.
- (D) in no case.

3. Find out the Order against which Appeal does not lie :--

- (A) an order of deemed suspension.
- (B) an order of E.O. passed during the course of enquiry.
- (C) an order made by the G.M.
- (D) an order enhancing any penalty imposed by G.M.

4. "Charge" means - a railway servant's action :--

- (A) not appreciated by the Controlling Officer.
- (B) of an out-standing nature.
- (C) violating a standing order and made known to him to explain.
- (D) None of the above.

5. Find out among the following the aspect which is violative of principles of natural justice :--

- (A) the offence alleged to have been committed by railway servant was made known to him.
- (B) the charged official was given an opportunity to produce defence documents.
- (C) the witnesses on behalf of D.A. were not allowed to be cross-examined by the charged employee

(D) the I.O. appointed to hold enquiry was a disinterested person.

6. An officer who is competent to impose the penalty of "Compulsory Retirement" C on a given railway servant, will also have the powers to impose :--

5. any other penalty lower than CR only.
6. any one of the minor penalties only.
7. penalties of 'Removal' & 'Dismissal' also.
8. no other penalty higher or lower than Compulsory Retirement.

7. The time allowed to charged official to submit his revision petition to the appropriate authority is :--

9. 15 days
10. 45 days
11. 60 days
12. 180 days

8. Where departmental proceedings and criminal proceedings in a Court are running concurrently :---

(A) Departmental proceedings should be finalised earlier to criminal proceedings.

(B) Departmental proceedings should not be finalised till criminal proceedings are finalised.

(C) Departmental proceedings should be dropped soon after the initiation of criminal proceedings.

D)The Court hearing the criminal case should be advised to pend its proceedings till finalisation of departmental case

9. A witness who is summoned by Disciplinary Authority to prove the charges, deposes before I.O. in favour of charged official. Such a witness is called.

Expert witness

Defence witness

Prosecution witness

Hostile witness

Irrelevant witness

10. During re-examination of a witness in the departmental inquiry by in I.O.

(A) a question to bring out altogether a new evidence can be asked.

(B) a question to explain certain statements made by him in the earlier cross-examination, can be asked.

(C) the witness should be asked to tell his story again.

(D) the witness should be put questions to reiterate his answers given in the examination-in-chief.

11 The power to remove a doubt or interpret any of the provisions of RS (D&A) Rules, 1968 rests with :--

- (A) Divisional Railway Manager
- (B) Chief Personnel Officer
- (C) Railway Board
- (D) The President of India

12 The document through which the alleged misconduct is communicated to a railway servant advising him to submit explanation, is called :--

- (E) Charge sheet
- (F) Penalty Notice
- (G) Show-Cause Memorandum
- (H) Daily Order Sheet
- (I) None of the above.

13 "Revision" under Rule 24 (2) & 24 (3) of RS (D&A) Rules is confined to railway servants who have been imposed :--

- (A) Any one of the MINOR penalties only
- (B) any one of the MAJOR penalties only.
- (C) Any penalty MAJOR or MINOR.
- (D) Penalties of Dismissal, Removal and Compulsory Retirement.

14 Where there is no presenting officer nominated, a charged official [non-gazetted-serving-SCRailway] may present his case during inquiry :--

- (A) With the assistance of any person.
- (B) With the assistance of serving railway employee of any railway including Railway Board.
- (C) With the assistance of only the serving railway employee of SC Railway.
- (D) With the assistance of serving or retired railway employee of SC Railway.

15 .Authority competent to nominate Inquiring Authority to hold enquiry in the manner specified in Rule 9 of D&A Rules against a non-gazetted railway servant is :-

- a) General Manager
- b) Revising Authority
- c) An authority to which disciplinary authority is immediately subordinate.
- d) Disciplinary Authority

16. One of the following is barred from acting as Defence Counsel. Find out.

- a) A serving employee of the same railway to which charged official belongs.
- b) A retired employee of the same railway to which charged official belongs.
- c) A serving employee of the same railway to which charged official belongs
- d) A serving Welfare Inspector.

17 One of the following is not a penalty under DAR. Find out.

- II. Withholding of Privilege Passes
- JJ. Withholding of Post-Retirement Passes
- KK. Withholding of PTOs
- LL. Withholding of Privilege Passes and PTOs

18 "Revision" of a penalty under Rule 25 of RS [D&A] Rules is applicable to :--

- All the minor penalties only
- All the major penalties only
- All the minor and major penalties
- Compulsory Retirement, Removal and Dismissal

19 An official of recognised trade union may assist a charged official during departmental inquiry, if the charged official is :--

- a. a non-gazetted railway servant only
- b. either of Group-C or Group-D or Group-B only
- c. a member of any group

d. another office-bearer of the same Union only

20 Speaking order means

(A) Reasons recorded in support of decision taken by the Disciplinary Authority

(B) The memorandum communicating the penalty

(C) The written statement of defence of the charged official

(D) The report of the Inquiry Officer

G & SR

OBJECTIVE TYPE QUESTIONS:

1. If the patrol man does not turn up within Minutes, he will be treated as delayed

- a) 5 min b) 10 min
- c) 15 min d) 20 min

2. In case of 1 in 100 rising gradient Siding is provided

- a) Slip siding b) catch siding
- c) Dead siding d) Sand hump siding

3. Adequate distance kept beyond the starter signal to take off the home signal is called as

- a) Signal over lap b) block over lap
- c) Overlapping block section d) none

4. Capacity of catch siding is

- a) Equivalent length of full train b) 3 or 4 wagon
- c) 5 or 6 wagon d) None

5. During TSL working in foggy weather, speed of the first train is

- a) 15 KMPH b) 30 KMPH
- c) 25 KMPH D) Working speed

6. Sounding of Hooters imply of good train at home station.

- a) 2 b) 3
- c) 4 d) 5

7. In case of block forward, private number of Station is written on

- a) Same station, T-806 b) Next station, T-511
- c) Rear station, T-806 d) None

8. Target time for departing ART during day And during night Minutes.

- a) 45, 30 b) 20, 15
- c) 10, 15 d) 30, 45

9. Permission to run “ C ” class ODC is given by With maximum speed of train is KMPH

- a) Sr DRM, 20 KMPH b) CRS, 40 KMPH
- c) COM, 20 KMPH d) CRS, 25KMPH

10. Block overlap in MACLS is Meter.

- a) 180 m b) 120 m
- c) 400 m d) 580 m

11. Signaloverlap in MACLS is Meter.

- a) 120 b) 400
- c) 580 d) 180

12. Signal passed at danger is treated as

- a) Indicative b) Averted
- c) Serious d) All of the above

13. Station limit is the position between

- a) Outer most signal b) Home to Advance
- c) Home to Starter d) Home to home

14. Signal over lap at a Terminal station with MACLS ISmeter

- a) 20 b) 30
- c) Nill d) 45

15. Sounding of 4 Hooter imply

- a) ART & MRV required at Home station
- b) ART required in Yard
- c) MRV required out of station
- d) ART & MRV required at out station

16. The speed of Train passing over the points when home signal is defective

- a) 10 KMPH
- B) 20 KMPH
- c) 15KMPH
- d) Maximum 15 KMPH

17. Block section is protected by Signal .

- a) Home
- b) Starter
- c) Last stop signal
- d) First stop signal

18. Caution orderNumber is

- a) T/A 409
- b) T/B 409
- c) T/C 409
- d) T/409

19. IBS Home shows Number of light in normal condition.

- a) Green
- b) Yellow
- c) Red
- d) Two Yellow

20. T/409 is issued for Speed restriction.

- a) Permanent
- b) Emergency
- c) Temporary
- d) None

21. Speed of each time train running in the wrong direction during TSL KMPH in automatic block section.

- a) 25 KMPH
- b) 30 KMPH
- c) 20 KMPH
- d) only 1ST train 30 KMPH

22. Line cleared is obtained from to send the train up to IBS.

- a) Next station
- b) Track circuit
- c) Axle counter
- d) Track circuit /Axle counter

23. Assistant engine demanded in block section through

- a) ALP
- b) Loco pilot
- c) Guard
- d) By any means

24. Permission to runs Good train without brake van is given by

- a) DOM
- b) AOM
- c) Sr DOM
- d) Sr DOM / DOM

25. Maximum shunting speed of passenger train is KMPH.

- a) 25
- b) 10
- c) 8
- d) 15

20. Current capacity of OHE is
a) 1200 A b) 600 A
c) 300 A d) 900A

21. If OHE fails minimum or more maximum speed of train by day 60 KMPH by night 30 KMPH
a) 5 mm or more b) 10 mm or more
c) 15 mm or more d) none

22. Length of over lapping Neutral section is
a) 3.74 m b) 5.163 m
c) 41 m d) 9.42 m

23. Normal implantation is meter.
a) 3.50 m b) 2.50 m
c) 4.5 m d) 3.70

24. Normal sag of regulated OHE is
a) 100 mm b) 200 mm
c) \pm 200 mm d) \pm 300 mm

25. PTFE Neutral section should be provided on tangent track at minimumm, distance after stop signal and m, before stop signal.

a) 200m, 400m b) 600 m, 300m
c) 100 m, 200 m d) 400 m, 200m

DIESEL LOCO HHP

OBJECTIVE TYPE QUESTIONS:

1. What is the Horse power of WDP₄ D & WDP₄ B locomotives
 - A. 3000 HP
 - B. 3500 HP
 - C. 4000 HP
 - D. 4500 HP

2. What is the compression ratio of WDP₄ D & WDP₄ B locomotives
 - A. 16:1
 - B. 14:1
 - C. 13:1
 - D. 15:1

3. Which type of diesel engine is fitted in HHP locomotive
 - A. Four stroke
 - B. Three stroke
 - C. One stroke
 - D. Two stroke

4. TM pinion and bull gear ratio in WDP₄ D & WDP₄ B loco is

- A. 17:90
- B. 17:77
- C. 65:18
- D. 90:35

5. Maximum speed of WDP₄ D & WDP₄ B locomotive is

- A. 130 Kmph
- B. 160 Kmph
- C. 150 Kmph
- D. 180 Kmph

6. What is the fuel tank capacity in WDP₄ D & WDP₄ B locomotive

- A. 5000 Litter
- B. 6000 Litter
- C. 4000 Litter
- D. None of these

7. Transmission in WDP₄ D & WDP₄ B locomotive is

- A. AC-DC
- B. AC-AC
- C. DC-DC
- D. DC-AC

8. Total weight of WDP₄ D loco is

- A. 115.8 Tones
- B. 119.8 Tones
- C. 121.8 Tones
- D. 123.0 Tones

9. Total weight of WDP₄ B loco is

- A. 115.8 Tones
- B. 119.8 Tones
- C. 121.2 Tones
- D. 123.0 Tones

10. What is the maximum speed of the WDG₄ locomotive

- A. 150 Kmph
- B. 140 Kmph
- C. 120 Kmph
- D. 100 Kmph

11. What is the fuel tank capacity of WDG₄ Locomotive

- A. 5000 Liters
- B. 6000 Liters
- C. 4000 Liters
- D. 7000 Liters

12. Length of WDG4/WDP4B loco over buffer is

- A. 19964 mm
- B. 23000mm
- C. 20000mm
- D. 21000mm

13. Length of WDP4D loco over buffer is

- A. 19964 mm
- B. 23000mm
- C. 20000mm
- D. 21000mm

14. Maximum Tractive effort of WDG4 loco is

- A. 41 Tones
- B. 53Tones
- C. 50 Tones

15. Maximum Tractive effort of WDG4 loco is

- A. 41 Tones
- B. 53Tones
- C. 50 Tones
- D.123.0 Tones

15. Maximum Tractive effort of WDP4B/WDP4D loco is

- A. 41 Tones
- B. 53 Tones
- C. 50 Tones
- D. 123.0 Tones

16. Which type of diesel engine model is fitted in HHP locomotive

- A. ALCO-251
- B. GT46
- C. 710 G3B
- D. GT 46MAC

17. How many cylinders are used in HHP Loco Engine

- A. 16 Nos
- B. 08 Nos
- C. 12 Nos
- D. 14 Nos

18. Which type of Traction Motors fitted in HHP LOCO?

- A. 3-Phase AC Motors
- B. DC Séries Motors
- C. Both A & B
- D. None of these

19. Which type of Main Generator fitted in HHP LOCO?

- A. DC Generator
- B. 3 phase Alternator
- C. Both A & B
- D. None of these

20. Main role of Traction Inverters in HHP LOCO?

- A. To control 3-Phase AC Induction Motors
- B. To control 3 phase Alternator
- C. Both A & B
- D. None of these

21. Traction Inverters converts in HHP Loco?

- A. DC power into 3 phase AC power for variable frequency
- B. AC power into 3 phase AC power
- C. Both A & B
- D. None of these

22. Output voltage & current of TCC is.

- A. 620 -2600 V DC, max 1200 A DC
- B. 0 V AC- 2000 V, max 1100 A AC
- C. 520 -2600 V DC, max 1100 A DC
- D. None of these

23. Weight of TCC is.

- A. 2400Kg
- B. 2000Kg
- C. 1500Kg
- D. None of these

24. Outer Dimension (lxbxh) of TCC is.

- A. 1833x2140x1450mm
- B. 1530x2140x1450mm
- C. 2133x2140x1450mm
- D. None of these

25. Current rating of **COMPUTER CONTROL, ACCONTROL, AIR DRYER**, Circuit breaker in HHP loco is

- i. 10 Amp
- ii. 15 Amp
- iii. 20 Amp
- iv. 25 Amp

26. Current rating of **Head Light** circuit breaker in HHP loco is

- v. 10 Amp
- vi. 15 Amp
- vii. 20 Amp
- viii. 35 Amp

27. Current rating of **CONTROL** circuit breaker in HHP loco is

- ix. 40 Amp
- x. 50 Amp
- xi. 90 Amp
- xii. 35 Amp

28. Current rating of **GEN FIELD** circuit breaker in HHP loco is

- xiii. 40 Amp
- xiv. 50 Amp
- xv. 90 Amp
- xvi. 35 Amp

29. Current rating of **TCC1 Computer, TCC2 Computer, AUX.GEN FEEDBACK, AUX.GEN FIELD** circuitbreaker in HHP loco is

- 10 Amp
- 20 Amp
- 30 Amp
- 35 Amp

(b) Current rating of **TCC1-TCC2 BLOWER** circuit breaker in HHP loco is

- 10 Amp
- 50 Amp
- 30 Amp
- 35 Amp

30. Current rating of **DCL Control, EVENTRECORDER** circuit breaker in HHP loco is

- A. 03 Amp
- B. 5 Amp
- C. 10 Amp
- D. 15 Amp

31. How much DC LINK switch gears in HHP LOCO?

- A. 6
- B. 5
- C. 4
- D. 3

32. Traction Control Cabinet (TCC) consists of

- B. Six Traction Computers, 6 DCL switch gears
- C. 6 IGBT based Inverters, DC link Capacitors and Crow bar circuit
- C. Both A & B
- D. None of these

33. TCC converts during dynamic brake.
In HHP Loco?

- A. DC power into 3 phase AC power
- B. 3 phase AC power into DC power
- C. Both A & B
- D. None of these

34. In HHP Locos ECC-2 are located in

- (a) Driver cabin
- (b) Under Truck
- (c) Near Radiator room
- (d) None of these

35. In HHP Locos STA & ST Contactors are located in

- A. ECC-1
- B. ECC-2
- C. ECC-3
- D. ECC-4

36. In HHP Locos AGAI & AGAV Sensors are located in

- a ECC-1
- b ECC-2
- c ECC-3
- d ECC-4

37. In HHP Locos Battery charger & Aux Gen CB are located in

- a ECC-1
- b ECC-2
- c ECC-3
- d ECC-4

38. WDP4D Locos, ECC2 same as
- a WDP4
 - b WDG4
 - c WDP4B
 - d All of above

39. In WDP4/WDP4B Locos ECC-1 are located in
- (a)Driver cabin
 - (b)Near Radiator room
 - (c)Under Truck
 - (d)None of thèse

40. In WDP4/WDP4B Locos ECC-3 are located in
- (a) Driver cabin
 - (b) Near Radiator room
 - (c) Under Truck
 - (d) None of thèse

41. In WDG4 when driver fails to acknowledge the alerter it gives audio warning forsec.

- A. 10
- B. 17
- C. 25
- D. 8

42.. For quick charging of BP in WDG4 is used.

- A. Foot pedal
- B. A9 release
- C. SP1/SP2
- D. None of these

43.. In WDG4 hot oil detector is set at...degrees centigrade

- A.126
- B. 100
- C.150
- D. 200

44.Blended brake is mixture of

- A. Vacuum +Air
- B. Dynamic +Loco
- C. Formation +Dynamic+ loco
- D. Formation +Loco

45. In WDP4 when the loco is moving in opposite direction to the reverser position.....will happen soon the speed

increases to 5 kmph

- A. Dynamic brake come into action
- B. alerter will come into function

C. power ground will take place

D. Loco will shutdown

46. The only loco provided with two dipstick gauges to measure lube oil is

A. WDM2

B. WDP4

C. WDG4

D. WDG3A

47. WDG4 engine cylinders are cooled by

A. Water

B. oil and water

C. super charged air and water

D. air conditioning

48. What is the lube oil SUMP capacity of WDP4 loco?

A. 1073 Liters

B. 1100 Liters

C. 950 Liters

D. 910 Liters

49. What is the full speed RPM of the HHP locomotive engine

E. 1000 RPM

F. 904 RPM

G. 900 RPM

H. 950 RPM

50. What is the IDLE speed RPM of the HHP locomotive engine

- I. 300 RPM
- J. 200 RPM
- K. 269 RPM
- L. 904 RPM

51. What is the low IDLE speed RPM of the HHP locomotive engine

- A. 300 RPM
- B. 200 RPM
- C. 269 RPM
- D. 904 RPM

52. What is the lube oil SUMP capacity of WDG4 loco?

- A. 1000 Liters
- B. 1100 Liters
- C. 1457 Liters
- D. 910 Liters

53. What is the coolant water capacity in the HHP locomotive

- A. 1200 Liters
- B. 1100 Liters
- C. 1045 Liters
- D. 1145 Liters

54. Capacity of sand box in the WDG 4 locomotive

- A. 1 Ft³/ box
- B. 2 Ft³/ box
- C. 1.5 Ft³/ box
- D. 3 Ft³/ box

55. Capacity of sand box in the WDP 4 locomotive

- A. 1.5 Ft³/ box
- B. 02 Ft³/ box
- C. 01 Ft³/ box
- D. 3 Ft³/ box

56. Which type of bogie fitted in the HHP locomotive

- A. Single suspension
- B. Double suspension
- C. Triple suspension
- D. None of these

57. In the fuel oil system which type of injectors provided in HHP locomotive

- A. Unit injectors
- B. Injectors with HP line
- C. Injector with cam
- D. None of these

58. In the two stroke engine the cylinder head of the engine equipped with

- A. Inlet & Exhaust valves
- B. Only Inlet valves
- C. Only Exhaust valves
- D. None of these

59. In the HHP locomotive the Turbo charger is driven by

- A. Exhaust Gas
- B. Gear Train
- C. Gear Train & Exhaust gas
- D. None of these

60.. Air compressor in the HHP locomotive is

A. Single stage

B. Two stage

C. Three stage

D. Four stage

61. In WDP4/WDG4 loco if water pressure is less

A. LLOB trips

B. Low water pressure button will trip

C. Crank case pressure button will trip

62. In WDP4 /WDG4 loco before conducting air brake self test

- A. Recycle MAB
- B. Recycle TCC1 and TCC2
- C. Recycle Air drier breaker.
- D. Both A & B

63. Location of EST in WDG4 loco is in

- A. Control stand
- B. control panel
- C. Generator room
- D. Accessories room

64. In WDG4 loco LLOB is located in

- A. Accessories room
- B. Compressor room
- C. Engine power take off end
- D. ECC3

65 In WDP4/WDG4 loco during false locked axle indication

- A. Isolate the defective truck
- B. Isolate the defective speed sensor
- C. Isolate the defective TM
- D. Fail the loco

66. In WDP4/WDG4 dead loco for quick release of loco brakes open one side

- A. MR equalising cock
- B. BC equalising cock
- C. BP equalising pipe
- D. Both A & B

67. Location of BS in WDG4 Loco is

- A. On foot plate
- B. In Accessories room
- C. In LP's cab
- D. In ECC 3

68. In WDP4/WDG4 Loco when lube oil temperature exceeds 124 degree centigrade.

- A. Hot oil detector operates
- B. LLOB operates
- C. OSTA trips
- D. Both A and B

69. In WDP4/WDG4 banker loco working control stand A9 should be kept in

- A. FS position
- B. Run position
- C. Release position
- D. Emergency position

70. In WDP4/WDG4 loco engine should not be cranked when

- A. Low water button is tripped
- B. crank case pressure button is tripped
- C. LLOB is in tripped
- D. OSTA is tripped

71. In WDP4/WDG4 banker loco working CS, L/T switch should be kept in

- A. Lead
- B. Trail
- C. HLPR
- D. Test

72.. Oil visibility in bye pass sight glass indicates that

- A. Primary filter is choked.
- B. Spin on filter choked.
- C. Lube oil filter choked.
- D. Lube oil strainer choked.

73. In WDP4/WDG4 loco choking of fuel oil primary filter is indicated by

- A. Filter condition guage.
- B. Oil visibility in bye pass sight glass.
- C. Both A & B
- D. Oil visibility in sight glass near to engine block

74. Oil lubricated TM gear case is provided in

- A. WDM 2
- B. WDM 3D
- C. WDG 3A
- D. WDP4

23

74. . If AGFB tripped in WDP4/WDG4 locos

- A. Battery will discharge
- B. Load meter will not respond
- C. Both A and B
- D Engine will shut down

75. Horse Power of Traction Motor in WDG4 Loco

- A.500KW
- B.600KW
- C.1430KW
- D.None of these

76. In WDG4 Loco Traction Motor is.....

A. Force air ventilated cooled

B. Oil cooled

C. Water cooled

D None of these

77. Nominal AC Aux. Generator Voltage in WDG4 Loco

A. 64VDC

B. 55V AC

C. 74VDC

D None of these

78. Rectified Voltage of AC Aux. Generator in WDG4 Loco

A. 64VDC

B. 55V AC

C. 74VDC

D None of these

79. Max Power output of AC Aux. Generator in WDG4 Loco

A. 18KW

B. 25KW

C. 20KW

D None of these

80.Total nos. of Batteries in WDG4 Loco Lead acid type

- A. 10
- B. 02
- C. 08

D None of these

81.Total nos of cell of Batteries in WDG4 Loco (Lead acid type)

- A. 32
- B. 50
- C. 64
- D None of these

82.Total nos of cell of Batteries in WDP4 Loco (Ni-Cadmium type)

- A. 32
- B. 50
- C. 64
- D None of these

83. Voltage of Battery Cell in WDP4 Loco (Ni-Cadmium type)

- A. 1.5V
- B. 2.1V
- C. 2.5V
- D None of these

84.Voltage of Battery Cell in WDG4 Loco (Lead acid type)

- A. 1.5V
- B. 2.1V
- C. 2.5V
- D None of these

84. Total Voltage of Batteries in WDG4 Loco (Lead acid type)

- A. 68V
- B. 75V
- C. 72V
- D None of these

85. Total Voltage of Batteries in WDP4 Loco (Ni-Cadmium type)

- A. 68V
- B. 75V
- C. 72V
- D None of these

86. Total nos of Batteries in WDP4 Loco (Ni-Cadmium type)

- A. 10
- B. 02
- C. 08
- D None of these

87.. Total nos of Cylinder of Air Compressor in WDG4 Loco

- A. 06
- B. 03
- C. 04
- D None of these

88. Capacity of lube oil of Air Compressor in WDG4 Loco

- A. 9.98Litter
- B.12 Litter
- C.06 Litter
- D None of these

89.. Model of WDG4. Loco

A.GT46MAC

B.GT46PAC

C.Both A & B

D None of these

90. Model of WDP4. Loco

A.GT46MAC

B.GT46PAC

C. Both A & B

D None of these

91.. Nos of Axles in WDP4 &WDG4 Locos

A.06

B.04

C.08

D None of these

92. How many Traction Motors in WDP4 Locos

A.06

B.04

C.08

D None of these

93. In WDP4 Locos Traction Motor fitted on

A. Axles no.1, 2 & 5, 6

B. All Axles

C. Axles no.1, 2 & 3, 4

D None of these

94. In WDP4 Locos Engine starting switch is located

A. ECP

B. Engine room

C. Control stand

D None of these

95. In WDG4 Loco Engine starting switch is located

- A. ECP
- B. Engine room
- C. Control stand
- D. None of these

96. In WDG4 Loco RADAR is located

- A. Between Rear bogie & Fuel tank
- B. Engine room
- C. Between Front bogie & Fuel tank-
- D. None of these

97. In WDP4 Loco RADAR is located

- A. Between Rear bogie & Fuel tank
- B. Engine room
- C. Between Front bogie & Fuel tank
- D. None of these

98. Blended brake, Low water level switch, Temperature gauge & color code are provided in

- A. WDP4
- B. WDG4
- C. Both A & B
- D. None of these

99. Starting Tractive effort of WDG4 Loco is

- A. 540KN
- B. 270KN
- C. 400KN
- D. 200KN

100. Starting Tractive effort of WDP4 Loco is

- A. 540KN
- B. 270KN
- C. 400KN
- D. 200KN

101. Max. Continuous Tractive effort of WDP4 Loco is

- A. 540KN
- B. 270KN
- C. 400KN
- D. 200KN

102. Max. Continuous Tractive effort of WDG4 Loco is

- A. 540KN
- B. 270KN
- C. 400KN
- D. 200KN

103. Max. Dynamic Tractive effort (Speed 40 KMPH to 0) of WDG4 Loco is

- E. 540KN
- F. 270KN
- G. 400KN
- H. 200KN

104. Max. Dynamic Tractive effort (Speed 68 KMPH to 1) of WDP4 Loco is

- I. 540KN
- J. 270KN
- K. 160KN
- L. 200KN

105. Dead engine cut-off cock & C3W Distributor valve in WDP4/WDG4 Locos are located in

- M. Nose compartment
- N. Driver Cabin
- O. Engine compartment
- P. Radiator compartment
- Q.

106. Lead/Trail Air Brake Set-up Switch mounts on

- A. the lower right corner of the air brake controller
- B. Nose compartment
- C. Engine compartment
- D. Radiator compartment

107. How many braking position of A-9 valve have.

- A. 05 breaking position
- B. 04 breaking position
- C. 03 breaking position
- D. 01 breaking position

108. How many braking position of SA-9 valve have..

- A. 03 position
- B. 02 position
- C. 05 position
- D. 01 position

109. In minimum reduction position of A-9 brake valve BP should drop up to (PSI)...

- A. 0 to 3 PSI
- B. 4 to 7 PSI
- C. 8 to 11 PSI
- D. 12 to 15 PSI

110. In WDG 4 if false locked wheel indication is experienced

- A. Isolate defective sensor
- B. Isolate defective truck
- C. Isolate defective TM
- D. Fail the loco

111. In WDP4/WDG4 if GR (power) trips continuously three times within 10 minutes

- A. Truck isolation is to be done
- B. Defective TM is to be isolated
- C. Defective speed sensor is to be isolated
- D. Fail the Loco

112. In WDP4/WDG4 engine cranking but not starting due to

- A. EPD Tripped
- B. Governor not advancing fuel racks
- C. No fuel reaching in the cylinders
- D. Any one of above

113. In WDP4/WDG4 thick black smoke and poor hauling due to

- A. Low fuel oil pressure & Low booster air pressure
- B. Faulty turbo
- C. Faulty injectors.
- D. Any one of above

114. Temperatures of Engine exhaust gas reach up to

- A. 538°C
- B. 438°C
- C. 338°C
- D. None of these

115. Main parts of KNORR/NYAB CCB 1.5 Brake system are

- A. VCU & CRU
- B. PCU & KE Valve
- C. BVC
- D. All of above

116.Total no. of Keys on EM2000 Display Panel are

- A. 8
- B.16
- C.10
- D.12

117. No. of Radiator fan in WDP4 &WDG4 Locos

- A.02
- B.01
- C.03
- D.None of these

118. No. of Grid Blower Motors in WDP4 &WDG4 Locos

- A.04
- B.02
- C.03
- D.None of these

119. No. of Brake blocks in HHP Locos

- A.24
- B.12
- C.08
- D.None of these

120.When Computer controlled Breaker is recycled the disabled speed sensor.

- A. Remain Disabled
- B. Gets enabled but not to be disabled again
- C. Remain disabled but to be enabled
- D. Get enabled automatically & has to be disabled

121. When Reversor is thrown in forward direction, Sanders of

- A. No (3) & (6) only work
- B. All sanders work
- C. sanders works irrespective of Reversor
- D. No (1) & (4) wheels only work

122. Battery charger rectifies AC to DC of

- A. Aux gen output
- B. Companion Alternator output
- C. Main Alternator output
- D. None of the above

123. B.P continuity not getting to train from a working WDG4 Loco due to

- A. Additional BP COC closed in train end
- B. BP angle cock defective
- C. In train end no BP pressure in loco
- D. All of the above

124. On run GR Trip then the engine

- A. Will shut - down
- B. Comes to idle
- C. No effect on engine
- D. No effect on loco

125.. What is the type of lubrication system being used in diesel loco

- A. Gravity lubrication
- B. Force Feed lubrication
- C. Force Feed & splash lubrication
- D. Capillary lubrication

126. To check engine sump level, engine should be in condition

- A. Shout – down
- B. 4th Notch
- c. Idle
- d. 2nd Notch

127. Each Traction Motor provided with

- A. One speed sensor
- B. One speed sensor & one temp sensor
- C. One temp sensor
- D. Two speed sensor

129. Diameter of new wheels in WDP4 locos is

- A.1090mm
- B.1092mm
- C.1100mm
- D.1080mm

130. When there is communication link failure and micro air breaker is active, the loco will work

- A. As lead in
- B. Only in trail mode
- C. In both modes
- D. In helper mode

131. To recover PCS, it is compulsory to keep

- A. Both throttles handle in idle
- B. Any one throttle handles in idle
- C. Leading control stand throttle handle in idle
- D. Leading throttle handle in idle & reverser in neutral

132. The companion alternator runs at the same speed as

- A. Engine rpm
- B. Aux gen rpm
- C. Turbo rpm
- D. Locomotive rpm

133. MR Pressure dropping on run due to

- A. Air dryer defective
- B. Auto drain valve malfunctioning
- C. Break cylinder pipe damaged
- D. All of above

134. WDP4/WDG4 Hand break applies on wheels

- A. R4, R5
- B. R4, L4
- C. R4, R6
- D. L4, L5

135. Break cylinder pressure in WDP4/WDG4

- A. 5.2 kg /sq.cm
- B. 4.8 kg /sq.cm
- C. 3.8 kg /sq.cm
- D. 3.5 kg /sq.cm

136. MR pressure not building up due to

- A. MR EQ COC in open condition
- B. Pipe link chocked in MRPT system
- C. Defective MVCC
- D. All of above

137. What is the effect of auto flasher operation?

- A. Engine comes to idle
- B. auto flasher indication
- b. Buzzer
- c. All of above

138. ER/BP not creating

- A. LT switch defective
- B. Air brake failure
- C. Penalty not reset
- D. All of above

139. Lube oil pumps provided In HHP

- A. Scavenging pump
- B. Piston cooling pump & main lube oil pump
- C. Turbo lube pump
- D. All of above

140. Radiator fan controlled by

- A. EM2000
- B. TCC
- C. EM2000 & TCC
- D. None of these

C & W

OBJECTIVE TYPE QUESTIONS:

1. Distance between inside faces of flange at the right and left side wheel on axle is called

- a) Gauge
- b) Wheel gauge
- c) Diameter
- d) Parameter

2. Standard gauge measurement is

- a) 1600mm
- b) 1601mm
- c) 1599mm
- d) 1610mm

3. Height of wheel flange is

- a) 28.5 mm
- b) 30.00 mm
- c) 25 mm
- d) 28 mm

4. Root radius for Broad gauge is

- a) 10 mm
- b) 12mm
- c) 14 mm
- d) 15 mm

5. When the flange thickness reduces to less than 16 mm for BG is called

- a) Snap flange
- b) Thin flange
- c) Deep flange
- d) Worn out flange

6. The flange wears in such a way that radius at the top of flange become less than 5 mm is called

- a) Thin flange
- b) Sharp flange
- c) Deep flange
- d) Worn out flange

7. When the radius at the root of flange become less than 13 mm is called

- a) Worn out flange
- b) Deep flange
- c) Snap flange
- d) thin flange

8. Buffer projection maximum limit from head stock (for long case buffer) is

- a) 635 mm
- b) 456 mm
- c) 406 mm
- d) 584 mm

9. When the buffer projection limit is below the prescribed limit is called

- a) Displaced buffer
- b) Dead buffer
- c) Good buffer
- d) Bad buffer

10. Buffer right limit from rail top in BG Coaching stock is

- a) 1105-1030
- b) 1035-960
- c) 1100-1020
- d) 1110-1040

11. Maximum permissible buffer height difference with adjacent boogie is

- a) 15 mm
- b) 10 mm
- c) 11 mm
- d) 17 mm

12. Maximum permissible buffer height difference with adjacent wagon is

- a) 15 mm
- b) 50 mm
- c) 75 mm
- d) 70 mm

13. If number of primary springs per boogie is

- a) 8
- b) 6
- c) 12
- d) 4

14. If number of secondary springs per bogie is

- a) 4
- b) 8
- c) 10
- d) 12

15. Piston travel for effective brake power in Box/N empty condition is

- a) 85 + 10 mm
- b) 115 mm
- c) 110 mm
- d) 130 + 10 mm

16. Piston travel for effective brake power in coaches loaded condition is

- a) 115 mm
- b) 180 mm
- c) 130 mm
- d) 85 mm

17. Validity of BPC for CC rake (Yellow) from originating place is

- a) 100 %
- b) 90 %
- c) 85 %
- d) 80 %

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18. Premium rake (light green) BPC validity is

- a) 12 days for empty and 3 days for loaded
- b) 10 days for empty and 4 days for loaded
- c) 5 days for empty and 2 days for loaded
- d) 12 days for empty and 5 days for loaded

19. Millennium rake (white) BPC validity is.

- a) 3500 km / 10 days which is earlier
- b) 3000 km / 5 days which is earlier
- c) 2800 km / 4 days which is earlier
- d) 2500 km / 3 days which is earlier

20. BLC rake container (yellow) BPC validity is

- a) 6000 km / 30 days which is earlier
- b) 5000 km / 25 days which is earlier
- c) 4000 km / 30 days which is earlier
- d) 8000 km / 20 days which is earlier

21. If round trip distance is up to 3500 km then from where fresh BPC will be issued

- a) Only primary station
- b) Only secondary station
- c) Any intermediate station
- d) none

22. The yield strength of knuckle of material AAR -201 G is

- a) 132 ton
- b) 150 ton
- c) 200 ton
- d) 250 ton

23. The yield strength of knuckle of material AAR -201 E is

- a) 180 ton
- b) 200 ton
- c) 132 ton
- d) 150 ton

24. The ride index of LHB coach at the speed of 160 KMPH is

- a) 2.5
- b) 1.00
- c) 2.0
- d) 3.0

25. In under frame mounted the maximum BC are provided

- a) 4
- b) 2
- c) 6
- d) None

26. . In boogie frame mounted the maximum BC are provided

- a) 4
- b) 6
- c) 2
- d) None

27. The FIAT boogie is fitted with pneumatic brake as

- a) Disc brake
- b) clasp type brake
- c) fibre brake
- d) metallic barake

28. Speed of loco during attaching with H-type coupler is approx

- a) 3 kmph
- b) 5 kmph
- c) 1 kmph
- d) 6 kmph

29. Total clearance of A CLASS ODC should be

- a) 9"
- b) 6"
- c) 8"
- d) 10"

30. C class ODC can be moved in

- a) Day
- b) Night
- c) Day /Night
- d) None

ENGINEERING

OBJECTIVE TYPE QUESTION

1) Gap between tongue rail and stock in locked position is:-

- (a) 5 mm max (b) 6 mm max
(c) 4 mm max (d) 7 mm max

2) min length of tongue rail is:-

- (a) 12 feet (b) 10 feet
(b) 8 feet (d) 15 feet

3) Clearance between toe of open switch and stock rail is:-

- a) 95-115 mm (b) 100-120 mm
(c) 90-95 mm (d) 98-100 mm

4) Max vertical wear limit of 60 kg rail is:-

- a) 15 mm for 60 kg (b) 10 mm for 60 kg
(c) 913 mm for 60 kg (d) 05 mm for 60 kg

5) Rate of change of cross level per meter is called

- (a) Twist (b) gauge
(c) Super elevation (d) none

6- The Max Cant Deficiency for Speed up the 100 KMPH on BG is

- (a) 94 MM (b) 76 MM
(c) 51MM (d) 38MM

7- Permissible Limit of cant deficiency for BG is

- (a) 50MM (b) 60MM
(b) (c) 75MM (d) 88 MM

8- Ordinary rail are Made of

- (a) Mild Steel (b) Cast Iron
- (c) Wrought Iron (d) High Carbon Steel

9- For Point & Crossing Size of Broken Stone Ballast Used is

- (a) 25MM (b) 32MM
- (c) 40MM (d) 50 MM

10- The rail is design by its

- (a) Length (b) Weight
- (c) Cross Section (d) Weight Per Unit

11- Number of Fish Bolts per Fish Plate is

- (a) 2 (b) 4
- (c) 5 (d) 6

12- Largest Dimension o a Rail is its

- (a) Height (b) Foot Width
- (c) Head Width (d) Any of the Above

13- Max Value of Throw of Switch for BG Track is

- (a) 89MM (b) 95 MM
- (c) 100MM (d) 115MM

14- Welded Rails Up to ----- have been Used

- (a) 30 MM (b) 100MM
- (c) 800MM (d) 1300MM

15- Welded Rails Up to ----- have been Used

- (a) Tangent Track (b) Sharp Curve
- (c) Tunnels (d) Coastal Area

16- In INDIA a Maximum Sleeper Density is

- (a) M (b) M+2
- (c) M+4 (d) M+5

17- The Nation Chemical laboratory is located in

- (a) Mumbai (b) Bangalore
- (b) (c) Hyderabad (d) Pune

18- Dogs spike are used for fiber rails to the

- (a) Wooden sleeper (b) CTS-9 sleeper
- (c) Steel sleeper (d) Concrete sleeper

19- 52 kg rails are mostly used in

- (a) BG (b) MG
- (c) NG (d) Both A & B

20- Compare to straight position, on curves extra width of ballasts required is

- (a) Nil (b) 15 to 20 mm
- (c) 40 to 50 mm (d) 75 to 150 mm

