

WRITTEN EXAMINATION

Name of the Post: Written examination for the post of Instructor in scale Rs.9300-34800
Date of Written Exam : 21.07.12
Time : 10.30 hrs-13.30 hrs.
Total Marks : 100

Instructions to Candidates:

1. Candidates should follow strictly the instructions given in the Answer Book.
2. Since the candidates are permitted to keep the Question Paper with them, all answers should be written in the Answer Book only.
3. Candidates should strictly follow any other instructions that will be given by the Officer conducting the written exam.
4. Candidates should remain in their seats till such time they are permitted to leave by the Officer conducting the written exam.

Part:A

(Answer any of the FIVE Questions)

5x10 marks

1. Write Short notes on any two of the following
 - a. ODC movement
 - b. Excitation system in Diesel Electric locomotive
 - c. Emergency Braking Distance for 24 coach train.
2. How will you troubleshoot the following (Answer any 2)
 - a. BP not dropping while applying A9
 - b. Unloader assembly
 - c. Compressor governor
 - d. Series Parallel Power contactors not picking up (WDM2)
3. How is Fuel Economy measured? List out and explain the possible ways in which Fuel Economy can be improved in by Drivers and by Timetabling?
4. Explain in detail the various methods of conducting Load trial with Diesel Locomotives.
5. Please list out
 - a. special Driving Instructions for driving Leading and banker locos (4 marks)
 - b. Triple head operation (3 marks)
 - c. Locotrol (3 marks)
6. a. List out various information provided in a Working Time Table and how a Driver should use such information to achieve safe and punctual running of trains. (7 marks)
b. Other information which will be of use to drivers that should be given in WTT but currently is not provided.(3 marks)
7. What are the reasons for using Rajbasha in Railways and suggest ways for increasing Rajbasha usage?

Part:B

I Fill in the Blanks

10x1 marks

1. Function of wickpad is to lubricate _____
2. Flat tyre will cause _____ on the rails.
3. When D1 emergency is opened _____ valve brings engine to idle.
4. Currently WDM2 locomotive uses _____ lubricating oil for the engine.
5. MR safety valve is set to operate at _____
6. UPS stands for _____
7. If tacho Generator fails, engine will come to _____ (GE Gov)
8. The common software for lecturing with aid of projector is _____
9. No. of slip rings in traction alternator is _____
10. Rating of HL halogen bulb is _____

II: Say TRUE or FALSE

10X1 marks

1.	BIOS is the name of operating system in a PC	True/False
2.	If brake cylinder equalizer pipes COC are in open condition, then Loco brake will not apply	True/False
3.	8 mm test plate is used to check compressor efficiency	True/False
4.	Gradient is measured in degrees	True/False
5.	Power setter in MU is used for achieving fuel economy	True/False
6.	Cranking in WDM2 loco is done by exciter generator and auxiliary generator	True/False
7.	In banker locos, the position of 28VB COC should be in open	True/False
8.	The pinion bull gear ratio for WDM2 locos is 18:74	True/False
9.	VA1B valve creates/maintains/destroys air pressure for braking purposes	True/False
10.	The lubricant used in TM gear case is Servo prime 150.	True/False

III: Pick the correct Answer

10x2 marks

- When a train with a coach with flat tyre is moved to next TXR point, the speed permitted is
 - 20 kmph.
 - 30 kmph
 - 40 kmph
 - 50 kmph
- GR 2 is connected in _____ circuit
 - starting
 - power
 - charging
 - None
- GFOLR can be reset _____ times
 - 1
 - 2
 - 3
 - 4
- If both speedometers are defective in a loco, maximum speed permissible in kmph is
 - 45
 - 90
 - 30
 - 15
- DMR coil is connected in series with _____
 - OPS
 - SAR
 - ERR
 - PCS
- Too fast notching up will lead to _____ smoke from engine exhaust
 - Black
 - White
 - Bluish green
 - Green
- Fuel tank capacity of WDP1 loco is _____ litres
 - 5000
 - 4100
 - 3000
 - 6000
- The nominal axle load of BCNAHS wagon in tonne is
 - 23.5
 - 20.32
 - 21
 - 19
- The adhesion in WDG4 loco is
 - 27%
 - 30.8%
 - 43%
 - 44.8%
- In WDM2 lube oil system pressure relief valve setting is at _____ KG per cm²
 - 4.2.
 - 1.4.
 - 7.5
 - 8.2

IV: Match the following

10x 1 marks

OSTA	Operating system
56 cms	Koopers
Number of carbon brushes in FPM(AC)	Vaccum on dummy
Train simulator software	Wheel slip indication
Dead loco	Computer starting
No of cells in battery	nil
Flexible coupling	Engine right side free end
Linux	Microsoft
WSRR open circuited	MU2B in dead
Booting	FOUR