

**Selection for the Post of Tower Wagon Driver**

Date: 21.06.13

Time: 3 hrs.

Marks: 100

1. Read the question paper carefully before answering.
2. Candidate should write his/her name, designation, office, Staff/ PF No. in the answer sheet clearly.
3. Drawings must be neat and brief
4. Part - A consists of objective questions. The suitable correct answers only to be written in the answer booklet.
5. Part - B consists of descriptive type questions, where it should be brief and to the point

**PART – A**

I. Choose best answer. Answer all questions: 5 x 2 = 10

- i) The specific gravity of fully charged good lead acid battery is  
a) 1000                      b) 1900                      c) 1100                      d) 1200
- ii) The maximum permissible speed for the 8 wheeler tower car is  
a) 105 kmph                b) 230 kmph                c) 45 kmph                d) 60 kmph
- iii) Hindi day is celebrated on  
a) 14<sup>th</sup> September                b) 2<sup>nd</sup> October  
c) 15<sup>th</sup> August                      d) 14<sup>th</sup> October
- iv) Specific gravity is measured by  
a) Hydrometer                b) Ammeter                c) Voltmeter                d) Anemometer
- v) The OHE traction voltage is  
a) 230 volts                      b) 11000 volts                c) 25,000 volts                d) 33,000 volts

II. Match the following: Answer all questions: 5 x 2 = 10

- |               |                |
|---------------|----------------|
| i. Voltage    | a) ohms        |
| ii. Current   | b) power block |
| iii. ETR -3   | c) ammeter     |
| iv. Power     | d) voltmeter   |
| v. Resistance | e) Wattmeter   |

III. Expand the following: Answer all questions: 5 x 2 = 10

- i) OHE
- ii) PSI
- iii) ACTM
- iv) DRM
- v) OLIC

IV. Say true or false. Answer all questions: 5 x 2 = 10

- i) Voltmeter is used for measuring current in the electrical circuit
- ii) Tower wagon operates in one direction
- iii) OHE supply is Direct current supply
- iv) Trifar and pull lifts are loading appliances used in OHE
- v) The tower wagon is powered by 25 kv traction supply.

V. Fill in the blanks: Answer all questions: 5 x 2 = 10

- i) There are . . . . . cabs in a tower car.
- ii) A9 and SA9 valves are meant for . . . . .
- iii) Engine cranking starter battery is used in tower wagon is of . . . . volts
- iv) BP pressure maintained in tower wagon is . . . . . kg/sq. cm
- v) The unit of electrical energy . . . . .

PART - B

I. Short answers questions. Answer any five questions: 5 x 4 = 20

- i) Write the names of different bonds used in AC Traction ?.
- ii) Write the names of different types lubricating oils used in different types of tower wagons.
- iii) What is the Official language of the union of India.
- iv) What is the use of A T and PT used in TrD ?
- v) In which region as per OLIC rules, the state of Tamilnadu is coming under ?
- vi) State the reasons for tower wagon engine tripping.
- vii) What is the energy consumed by a lamp having a voltage of 230 volts, current 2 amps., with power factor of 0.8 for a period of 24 hours.

II. Essay type questions: Answer any three questions 3 x 10 = 30

- i) Explain in brief working of diesel engine with simple diagram indicating the different strokes
- ii) You are driving a tower wagon which is held up in mid section. Write a letter to the nearby station master requesting for relief engine to tow the tower wagon.
- iii) Write the various incentive schemes under OLIC
- iv) What are the maintenance schedules of a lead acid battery
- v) What are the various safety precautions to be taken while parking/driving a tower wagon in yard and also while in power block work in midsection.
- vi) What the various electrical energy conservation methods that can be implemented in railway ?