

Question Paper for selection of JB/Elec

Date of Exam: 22/03/17

Total marks: 100

Time: 3 hours

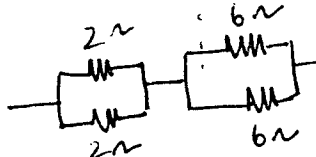
Note :-

- 1) pl. answer all questions in part A [Qn 1 to 38]
- 2) pl. answer only 5 questions in part B [Qn 39 to 46]
- 3) Marks are indicated against each question

Part A [Qn 1-38]

For the questions 1-10, pl. choose most appropriate options.
Each carry 1 mark :- $(10 \times 1 = 10)$

- ① The supply voltage of fan circuit in AC EMU coach is
- (a) 110V DC (b) 110V AC (c) 140V AC (d) 230V AC

- ② Equivalent Resistance of  is
- (a) 4 Ω (b) 8 Ω (c) 16 Ω (d) 12 Ω

- ③ 1 Megawatt is equal to
- (a) 10000 W (b) 1000 kW (c) 100 W (d) 10 kW

- ④ HP of Diesel Engine used in latest DEMU/DPC being manufactured in ICF during this year
- (a) 1400 (b) 1800 (c) 2200 (d) 1600

For the questions 11-30, pl fill in with correct answer. Each qn carry 1 mark each. (20x1 = 20)

- 11 MCF is located in _____.
- 12 Present Railway Minister is _____.
- 13 _____ is the standard form/document used for returning the material to stores depot.
- 14 The supply voltage for Kolkata metro rake is _____.
- 15 The capacity of battery provided in ACCN is _____.
- 16 Insulation Resistance is measured using _____.
- 17 50W fan working continuously in a day will consume _____ units of energy.
- 18 Speed of 6 pole synchronous motor is _____.
- 19 One basic unit ~~of~~ in EMU rake is consists of _____ + _____ coaches.
- 20 DC series motor is used for _____.

- (21) Form factor of a circuit is the ratio of _____
to _____.
- (22) When the speed of DC motor increases, its armature
current _____.
- (23) The symbol of frequency meter is _____.
- (24) The acid used in battery is _____.
- (25) The direction of rotation of 3ph Induction motor
can be reversed by interchanging _____.
- (26) The capacity of each DA set provided in ^{LHB} power
car is _____.
- (27) Specific gravity can be measured with _____.
- (28) _____ no of DMC coaches are available in each
Kolkata metro rake.
- (29) In parallel operation, load sharing by transformers
is according to _____.
- (30) The velocity of light waves in vacuum is _____.

For the questions 31-37, pl. expand the Abbreviation.

Each question carry 2 marks :-

(7x2 = 14)

(31) LED

(32) CFL

(33) ISO

(34) RMPU

(35) MRVC

(36) RCF

(37) MEMU

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(38) Match the following :- (6x1 = 6)

Potentiometer - current

Watt hour meter - Inductance

Oscilloscope - Energy

Ammeter - Resistance

LCR meter - voltage

Ohm meter - Capacitor

Part B [Qn 39 to 46]

Answer only 5 questions. Each carry 10 marks. (10x5=50)

- (39) Write down IMS policy of ICF. (10)
- (40) Write down atleast 20 different types of waches being manufactured in ICF. (10)
- (41) Draw the Ring main system adopted in ICF duly indicating salient points like Incoming feeder, bus coupler etc. (10)
- (42) Write atleast 10 major electrical equipments provided in LACCK & its purpose. (10)
- (43) Write short notes on any Two. (2x5=10)
- (a) VRLA battery vs Flooded battery
 - (b) Regenerative braking
 - (c) RMPU mounting & its testing procedure
 - (d) Powerpack mounting & its testing procedure
 - (e) Installation of windmill & its usage by ICF

(44) Pl. draw power schematic ~~and~~ wiring drawing for AC EMU motor coach of MRVC phase II rake. (10)

(45) What are different types of Electrical safety hazards, reasons causing such hazards and remedial measures to avoid the same. (10)

(46) (a) How many regions are classified under Official Language rules 1976? ICF is in which region? (2+1)

(b) What are the cash awards granted for passing Praboth, Praveen & Pragya Exams? (4)

(c) What are different level of OLIC meetings held in Railways? (3)
