



# Uttar Pradesh Metro Rail Corporation Limited

## उत्तर प्रदेश मेट्रो रेल कॉर्पोरेशन लिमिटेड

A joint Venture of Govt. of India and Govt. of Uttar Pradesh

Participant ID	
Participant Name	
Test Center Name	
Test Date	12/05/2024
Test Time	9:00 AM - 11:00 AM
Subject	Maintainer Electrical

Section : Section A

Q.1 The thickness of galvanised iron plate electrodes used for earthing should not be less than:

- Ans  A. 6.3 mm  
 B. 10 mm  
 C. 3.15 mm  
 D. 12.33 m

Question ID : 630680780965  
Status : Answered  
Chosen Option : A

Q.2 Which of the following is the drawback of AC electric power transmission?

- Ans  A. It is impossible to transmit power over a long distance.  
 B. Effective resistance of AC transmission lines is increased due to skin effect.  
 C. Power cannot be generated at higher voltages due to commutation problems.  
 D. Step-up or step-down transformation of voltages is not possible.

Question ID : 630680780957  
Status : Answered  
Chosen Option : A

Q.3 Select the most appropriate option to fill in the blank.  
The child \_\_\_\_\_ happy now.

- Ans  A. seems  
 B. seem  
 C. seeming  
 D. seemed

Question ID : 630680300682  
Status : Answered  
Chosen Option : A

Q.4 Which part of the DC machine is responsible for rectification in a DC generator?

- Ans  A. Commutator  
 B. Interpoles  
 C. Field poles  
 D. Yoke

Question ID : 630680780942  
Status : Answered  
Chosen Option : A

Q.5 A 400 V, three-phase, 50Hz supply is fed to a delta connected load having three identical coils, each coil having an impedance of 12 ohms. Determine the line current.

- Ans  A. 19.24 A  
 B. 57.73 A  
 C. 115.46 A  
 D. 38.48 A

Question ID : 630680780961  
Status : Answered  
Chosen Option : D

Q.6 The theory of the Eightfold Path is primarily related to the sermon of:

- Ans  A. Siddhartha Gautama  
 B. Suddhodhana  
 C. Mahaprajapati Gautami  
 D. Ananda

Question ID : 630680305948  
Status : Not Answered  
Chosen Option : --

Q.7 Which of the following is a three-terminal device capable of making or breaking two connections from a single position?

- Ans  A. Intermediate switch  
 B. Push-button switch  
 C. Two-way switch  
 D. One-way switch

Question ID : 630680780993  
Status : Answered  
Chosen Option : C

Q.8 The purpose of blocking diodes used in series-parallel connection of PV modules is to \_\_\_\_\_.

- Ans
- A. prevent power absorption by the failed string of PV modules
  - B. enhance the power generating capacity of the PV module
  - C. internal short circuit protection of PV cells
  - D. bypass the failed module in a string of PV modules

Question ID : 630680780959  
Status : Answered  
Chosen Option : D

Q.9 When was World Radio Day 2021 celebrated to raise a greater awareness among the public and the media regarding the importance of radio?

- Ans
- A. 22<sup>nd</sup> April
  - B. 13<sup>th</sup> February
  - C. 18<sup>th</sup> March
  - D. 10<sup>th</sup> January

Question ID : 63068074605  
Status : Not Answered  
Chosen Option : --

Q.10 निम्नलिखित में से कौन-से चरण अग्निशामक यंत्र के संचालन के सही क्रम को दर्शाते हैं?

- Ans
- A. खींचो, लक्ष्य साधो, फैलाओ, दबाओ
  - B. लक्ष्य साधो, खींचो, दबाओ, फैलाओ
  - C. खींचो, लक्ष्य साधो, दबाओ, फैलाओ
  - D. लक्ष्य साधो, दबाओ, खींचो, फैलाओ

Question ID : 630680781010  
Status : Answered  
Chosen Option : A

Q.11 The space between the two gates through which majority carriers pass from source to drain in a FET is called a \_\_\_\_\_.

- Ans
- A. terminal
  - B. junction
  - C. probe
  - D. channel

Question ID : 630680780969  
Status : Answered  
Chosen Option : B

Q.12 How much electrical energy is consumed in an electric heater rated as 1000 W, 250 V, used for 60 minutes?

- Ans
- A. 1000 W
  - B. 60 kWh
  - C. 1 kWh
  - D. 60000 W

Question ID : 630680780976  
Status : Answered  
Chosen Option : C

Q.13 Which of the following statements are true?

- i) A semiconductor with excess of electrons is called N-type.
- ii) Free electrons are minority carriers in P-type semiconductor material.
- iii) Copper and aluminium are examples of semiconductor materials.
- iv) Once the depletion layer is established, carriers can move freely through the junction.

- Ans
- A. iii and iv only
  - B. i, ii and iii only
  - C. i, ii, iii, and iv
  - D. i and ii only

Question ID : 630680780971  
Status : Answered  
Chosen Option : D

Q.14 A uni-junction transistor has \_\_\_\_\_ emitter(s) and \_\_\_\_\_ base(s).

- Ans
- A. two; one
  - B. one; one
  - C. one; two
  - D. two; two

Question ID : 630680780968  
Status : Answered  
Chosen Option : B

Q.15 In a certain code language, 'GLOW' is coded as '3214' and 'LONG' is coded as '1438'. What is the code for 'N' in the given code language?

- Ans
- A. 2
  - B. 8
  - C. 1
  - D. 3

Question ID : 630680568432  
Status : Answered  
Chosen Option : B

Q.16 Which of the following is an example of non-conventional sources of energy?

- Ans  A. Biomass energy  
 B. Hydro energy  
 C. Coal-based thermal energy  
 D. Nuclear energy

Question ID : 630680780953  
Status : Answered  
Chosen Option : C

Q.17 Which fire extinguisher should be used to extinguish a class C fire?

- Ans  A. Halon type  
 B. Liquid type  
 C. CO<sub>2</sub> type  
 D. Dry powder type

Question ID : 630680781007  
Status : Answered  
Chosen Option : D

Q.18 Which of the following statements are true with respect to induced EMF?

- i) When changing flux produces EMF, the EMF is called statically induced EMF.  
ii) When the conductor moves and produces EMF, the EMF is called dynamically induced EMF.  
iii) EMF produced by flux linkages from the same coil is mutual induced EMF.  
iv) EMF produced by flux linkages from a neighbouring coil is self-induced EMF.

- Ans  A. iii and iv only  
 B. i, ii, iii, and iv  
 C. i and ii only  
 D. i, ii and iii only

Question ID : 630680780985  
Status : Answered  
Chosen Option : C

Q.19 Which of the following is true in case of statically induced EMF?

- Ans  A. Conductor is moving in a stationary magnetic field  
 B. Conductor is stationary and flux linking is changing  
 C. Conductor is moving and flux linking is also changing  
 D. Conductor is stationary in a stationary magnetic field

Question ID : 630680780937  
Status : Answered  
Chosen Option : A

**Q.20** For the construction of express way, part of Raju's field was taken by the Govt. As a result the length and the breadth of Raju's field got reduced by 10% and 5%, respectively. What is the net percentage decrease in the area of Raju's field?

- Ans
- A. 15.5%
  - B. 15%
  - C. 14.5%
  - D. 14%

Question ID : 630680756618  
Status : Answered  
Chosen Option : C

Section : Section B

**Q.1** Cut-in speed in wind turbines is defined as:

- Ans
- A. the minimum wind speed at which useful power can be generated
  - B. the wind speed at which the wind turbine delivers the rated power
  - C. the maximum wind speed at which the wind turbine is designed to produce power
  - D. the minimum speed at which the wind turbine starts movement

Question ID : 630680780954  
Status : Answered  
Chosen Option : A

**Q.2** Which switch is operated by means of a projecting lever that can be moved upwards and downwards?

- Ans
- A. Toggle switch
  - B. Modular switch
  - C. Bell-push switch
  - D. Pull switch

Question ID : 630680780998  
Status : Answered  
Chosen Option : D

**Q.3** An earth electrode is a \_\_\_\_\_ piece of pipe electrically connected to the general mass of the earth

- Ans
- A. metal
  - B. rubber
  - C. wooden
  - D. PVC

Question ID : 630680780962  
Status : Answered  
Chosen Option : A

Q.4 शरीर के बाहर चोट से सुरक्षा के लिए, अर्थात सिर, आंख, चेहरे, हाथ, बांह, पैर आदि की सुरक्षा के लिए उपयोग किए जाने वाले व्यक्तिगत सुरक्षा उपकरण (PPE) को किस प्रकार वर्गीकृत किया गया है?

- Ans  A. गैर-श्वसन प्रकार PPE  
 B. आवश्यक PPE  
 C. श्वसन प्रकार PPE  
 D. गैर-आवश्यक PPE

Question ID : 630680781005  
Status : Answered  
Chosen Option : B

Q.5 Match the following.

List I	List II
a) Class A	i) Wood
b) Class B	ii) Gas
c) Class C	iii) Oil
d) Class D	iv) Metals

- Ans  A. a-i, b-ii, c-iii, d-iv  
 B. a-iv, b-iii, c-ii, d-i  
 C. a-i, b-iii, c-ii, d-iv  
 D. a-iv, b-ii, c-iii, d-i

Question ID : 630680781014  
Status : Answered  
Chosen Option : C

Q.6 The carotid artery that is used to check the victim's pulse while providing first aid is located:

- Ans  A. on the right side of the abdomen, close to the liver  
 B. on either side of the neck, below the jaw bone  
 C. on the left side of the chest, close to the heart  
 D. on the either side of the head, between the forehead and the ear

Question ID : 630680781015  
Status : Answered  
Chosen Option : C

Q.7 Select the most appropriate ANTONYM of the underlined word in the given sentence.

It was an awkward moment, and Mr. Satterthwaite was momentarily out of words.

- Ans  A. Uneasy  
 B. Composed  
 C. Genius  
 D. Terrible

Question ID : 630680375528  
Status : Answered  
Chosen Option : C

Q.8 The nucleus of an atom comprises of \_\_\_\_.

- Ans  A. protons, neutrons, and electrons  
 B. neutrons only  
 C. protons only  
 D. protons and neutrons only

Question ID : 630680780967  
Status : Answered  
Chosen Option : D

Q.9 To reduce the error in a potential transformer, it is required to provide \_\_\_\_.

- Ans  A. core of least permeability  
 B. a short magnetic path  
 C. a long magnetic path  
 D. magnetic insulation between primary and secondary coils

Question ID : 630680781019  
Status : Answered  
Chosen Option : D

Q.10 The direction of the rotation of a DC shunt motor can be changed by \_\_\_\_.

- Ans  A. interchanging the supply connections  
 B. changing the direction of the field current only  
 C. changing the direction of the armature current only  
 D. either changing the direction of the armature current or by changing the direction of the field current

Question ID : 630680780944  
Status : Answered  
Chosen Option : D



Q.11 Which of the following speed control method allows to control the direction of rotation of DC motor?

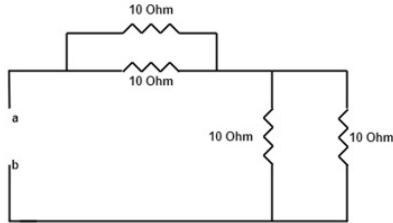
- Ans  A. Field diverter method  
 B. Series field tapping method  
 C. Supply voltage control method  
 D. Ward-Leonard system of speed control

Question ID : 630680780946

Status : Answered

Chosen Option : D

Q.12 Determine the equivalent resistance between the terminals a and b of the circuit shown in the given figure.



- Ans  A. 5 ohms  
 B. 20 ohms  
 C. 15 ohms  
 D. 10 ohms

Question ID : 630680780974

Status : Answered

Chosen Option : D

Q.13 दिए गए कथनों और निष्कर्षों को ध्यानपूर्वक पढ़िए। आपको दिए गए कथनों को सत्य मानना है, भले ही वे सामान्यतः ज्ञात तथ्यों से भिन्न प्रतीत होते हों। आपको यह तय करना है कि कौन-सा/से निष्कर्ष दिए गए कथनों का तार्किक रूप से अनुसरण करता/करते है/हैं।

कथन:

कुछ दरवाजे, अलमारियाँ हैं।

सभी अलमारियाँ, दर्पण हैं।

कोई दर्पण, कमरा नहीं है।

निष्कर्ष:

(I) कोई दर्पण, दरवाज़ा नहीं है।

(II) कम से कम कुछ कमरे, दरवाजे हैं।

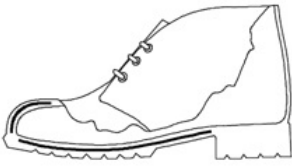
- Ans  A. निष्कर्ष (I) और (II) दोनों अनुसरण करते हैं।  
 B. केवल निष्कर्ष (I) अनुसरण करता है।  
 C. न तो निष्कर्ष (I) और न ही (II) अनुसरण करता है।  
 D. केवल निष्कर्ष (II) अनुसरण करता है।

Question ID : 630680349915

Status : Answered

Chosen Option : D

Q.14 The personal protective equipment (PPE) shown in the given figure is categorised as:



- Ans
- A. PPE6
  - B. PPE4
  - C. PPE8
  - D. PPE2

Question ID : 630680781016  
Status : Answered  
Chosen Option : B

Q.15 Which of the following actions is NOT recommended while reporting an emergency over the telephone to an emergency service?

- Ans
- A. Explaining how the incident occurred
  - B. Not responding to the dispatcher's follow-up questions
  - C. Reporting the location of incident
  - D. Describing the nature of the emergency

Question ID : 630680781004  
Status : Answered  
Chosen Option : C

Q.16 Which of the following logic gates gives low output (logic = 0) when all the inputs are in high state?

- Ans
- A. AND
  - B. OR
  - C. XNOR
  - D. NAND

Question ID : 630680781013  
Status : Not Answered  
Chosen Option : --

Q.17 COP26 में, भारत ने \_\_\_\_\_ तक कार्बन तटस्थ बनने का वादा किया है।

- Ans
- A. 2040
  - B. 2070
  - C. 2050
  - D. 2060

Question ID : 63068098967  
Status : Not Answered  
Chosen Option : --

Q.18 जब किसी दुर्घटना के शिकार व्यक्ति की जाँच के बाद पता चलता है कि उसकी पल्स (नब्ज) नहीं चल रही है, तो तत्काल क्या कार्रवाई करने की अनुशंसा की जाती है?

- Ans  A. पीड़ित को पानी पिलाएं।  
 B. पीड़ित पर CPR शुरू करें।  
 C. पीड़ित को अस्पताल ले जाएं।  
 D. पीड़ित की मौत की घोषणा करें।

Question ID : 630680781009  
Status : Answered  
Chosen Option : B

Q.19 How many fundamental elements are mentioned in Jainism to trace the natural and supernatural things of the universe?

- Ans  A. Nine  
 B. Five  
 C. Eight  
 D. Seven

Question ID : 630680216026  
Status : Answered  
Chosen Option : B

Q.20 एक वस्तु का अंकित मूल्य ₹2,000 है और उसे दो क्रमिक छूटों के बाद ₹1,440 में बेचा जाता है, जिसमें से पहली छूट 20% है। दूसरी छूट कितनी है?

- Ans  A. 10%  
 B. 8%  
 C. 20%  
 D. 15%

Question ID : 630680756631  
Status : Answered  
Chosen Option : B

Section : Section C

Q.1 What is the rating of a two-pin socket?

- Ans  A. 32 A, 250 V  
 B. 6 A, 250 V  
 C. 16 A, 250 V  
 D. 2 A, 250 V

Question ID : 630680780997  
Status : Not Answered  
Chosen Option : --

Q.2 The recommended cable size for a 5 HP motor having a full load current of 7.5 A is \_\_\_\_\_.

- Ans  A. 2.0 mm<sup>2</sup> copper conductor cable  
 B. 1.0 mm<sup>2</sup> aluminium conductor cable  
 C. 0.5 mm<sup>2</sup> aluminium conductor cable  
 D. 0.5 mm<sup>2</sup> copper conductor cable

Question ID : 630680780999  
Status : Answered  
Chosen Option : A

Q.3 Fleming's right-hand rule is employed to:

- Ans  A. determine the direction of rotating magnetic field  
 B. determine the direction of dynamically induced EMF  
 C. determine the direction of motor rotation  
 D. determine the direction of armature movement

Question ID : 630680780938  
Status : Answered  
Chosen Option : A

Q.4 Consider the following statements as per IE regulations for the main switch and distribution board.

- i) The neutral wire should have a break in the form of a switch or fuse unit.  
ii) All main switches should be either of metal-clad enclosed pattern or of any insulated enclosed pattern.  
iii) The main switchgear should be located in a place where it is accessible.  
iv) Switchboards shall not be erected above gas stoves or sinks.  
Which of the above statements are true?

- Ans  A. i, ii and iii only  
 B. ii, iii, and iv only  
 C. iii and iv only  
 D. i and ii only

Question ID : 630680781000  
Status : Answered  
Chosen Option : B

Q.5 Which of the following statements is true regarding the severity of an electric shock?

- Ans  A. Severity of the shock depends on the magnitude of the current only.  
 B. Severity of the shock depends on the duration of the current only.  
 C. Severity of shock is independent of the magnitude of current and the duration of contact.  
 D. Severity of shock depends both on the magnitude of current and the duration of contact.

Question ID : 630680781006  
Status : Answered  
Chosen Option : D

Q.6 दिए गए चित्र में प्रदर्शित सुरक्षा चिन्ह \_\_\_\_\_ का एक उदाहरण है।



- Ans
- A. निषेध चिन्ह
  - B. चेतावनी चिन्ह
  - C. सूचना चिन्ह
  - D. अनिवार्य चिन्ह

Question ID : 630680781002  
Status : Answered  
Chosen Option : D

Q.7 Select the most appropriate option that can substitute the highlighted segment in the given sentence.

He may not be a good worker, but he has a talent of speaking.

- Ans
- A. his own counsel
  - B. shown his teeth
  - C. the gift of the gab
  - D. a man of his words

Question ID : 630680756661  
Status : Not Answered  
Chosen Option : --

Q.8 As per IE regulations, the load on each power sub-circuit should be restricted to \_\_\_\_\_.

- Ans
- A. 2000 W
  - B. 500 W
  - C. 3000 W
  - D. 1000 W

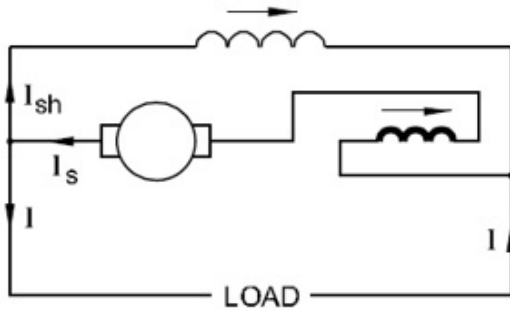
Question ID : 630680780987  
Status : Answered  
Chosen Option : C

Q.9 In the context of waste disposal methods, incineration refers to \_\_\_\_\_.

- Ans
- A. a process of controlled combustion of garbage to reduce it to incombustible matter
  - B. a natural process involving breaking down the waste material into organic compounds that can be used as manure
  - C. a process compaction of waste materials into blocks and sending for recycling
  - D. a process of landfilling in low lying areas

Question ID : 630680781008  
Status : Answered  
Chosen Option : D

Q.10 Identify the type of DC generator shown in the given figure.



- Ans
- A. Differential long shunt compound generator
  - B. Differential short shunt compound generator
  - C. Cumulative short shunt compound generator
  - D. Cumulative long shunt compound generator

Question ID : 630680780943

Status : Not Answered

Chosen Option : --

Q.11 Calculate the power dissipated by a resistor with a resistance of  $10\ \Omega$  when a current of  $2\ \text{A}$  flows through it.

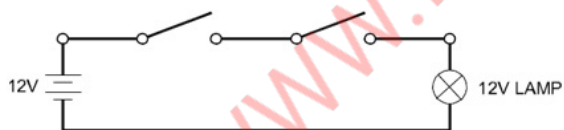
- Ans
- A. 20 W
  - B. 5 W
  - C. 10 W
  - D. 40 W

Question ID : 630680780975

Status : Answered

Chosen Option : D

Q.12 The circuit shown in the given figure is an electrical equivalent of the \_\_\_\_\_ logic gate.



- Ans
- A. NAND
  - B. NOT
  - C. AND
  - D. OR

Question ID : 630680781012

Status : Not Answered

Chosen Option : --

Q.13 आमतौर पर हर साल राष्ट्रीय खेल दिवस यानी 29 अगस्त को एक विशेष समारोह में राष्ट्रीय खेल पुरस्कार दिए जाते हैं। लेकिन, वर्ष 2021 के लिए यह पुरस्कार \_\_\_\_\_ को दिया गया।

- Ans  A. 15 अगस्त  
 B. 2 नवंबर  
 C. 13 नवंबर  
 D. 26 जनवरी

Question ID : 63068091163  
Status : Answered  
Chosen Option : D

Q.14 In this question, three statements are given, followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

All purses are covers.

All bags are covers.

Some suitcases are bags.

Conclusions:

I. Some purses are bags.

II. Some suitcases are covers.

- Ans  A. Both conclusions I and II follow.  
 B. Only conclusion I follows.  
 C. Only conclusion II follows.  
 D. Neither conclusion I nor II follows.

Question ID : 630680519108  
Status : Answered  
Chosen Option : A

Q.15 Which of the following is an example of ferromagnetic substances?

- Ans  A. Platinum  
 B. Bismuth  
 C. Nickel  
 D. Graphite

Question ID : 630680780980  
Status : Not Answered  
Chosen Option : --

Q.16 किसी धनराशि का मिश्रधन चक्रवृद्धि ब्याज की समान दर पर 4 वर्ष बाद ₹15,000 और 8 वर्ष बाद ₹22,500 हो जाता है। वह धनराशि ज्ञात कीजिए।

- Ans  A. ₹7,500  
 B. ₹12,000  
 C. ₹10,000  
 D. ₹12,500

Question ID : 630680524024  
Status : Not Answered  
Chosen Option : --

- Q.17 एक घर में, निम्नलिखित विद्युत भार का दैनिक उपयोग किया जाता है।  
(i) प्रतिदिन 6 घंटे के लिए 40 W की 3 लाइटों का उपयोग किया जाता है।  
(ii) प्रतिदिन 12 घंटे के लिए 80 W के 2 पंखों का उपयोग किया जाता है।  
(iii) प्रतिदिन 1 घंटे के लिए 1000 W के इमर्शन हीटर का उपयोग किया जाता है।  
यदि बिजली की लागत ₹3/यूनिट है तो अगस्त महीने के बिजली बिल की राशि की गणना करें।

Ans  A. ₹3,385.2  
 B. ₹338.52  
 C. ₹364  
 D. ₹3,640

Question ID : 630680780984  
Status : Answered  
Chosen Option : C

- Q.18 निम्नलिखित में से किस वर्ष में अकबर ने अंततः मालवा को मुगल साम्राज्य में मिलाने में सफलता प्राप्त की?

Ans  A. 1562  
 B. 1574  
 C. 1581  
 D. 1570

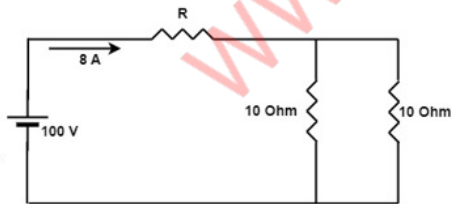
Question ID : 630680326301  
Status : Not Answered  
Chosen Option : --

- Q.19 The bypass diodes used in series-parallel connection of PV modules are connected \_\_\_\_\_.

Ans  A. in parallel with each PV module  
 B. in series with each PV module  
 C. in parallel with each blocking module  
 D. in series with each blocking module

Question ID : 630680780955  
Status : Not Answered  
Chosen Option : --

- Q.20 For the circuit shown in the given figure, determine the value of the unknown resistance R.



Ans  A. 2.5 ohms  
 B. 7.5 ohms  
 C. 10 ohms  
 D. 5 ohms

Question ID : 630680780972  
Status : Answered  
Chosen Option : B



Section : Section D

Q.1 Which of the following losses is categorised as mechanical losses in DC machines?

- Ans
- A. Eddy current loss
  - B. Copper loss
  - C. Friction and windage loss
  - D. Hysteresis loss

Question ID : 630680780940  
Status : Answered  
Chosen Option : C

Q.2 दिसंबर 2022 में, निम्नलिखित में से किसने 25 m फिना (FINA) विश्व तैराकी चैंपियनशिप के 100 m ब्रेस्टस्ट्रोक में राष्ट्रीय रिकॉर्ड बनाया है?

- Ans
- A. चाहत अरोड़ा
  - B. शिव श्रीधर
  - C. रूपाली रिपले
  - D. कंचनमाला पांडे

Question ID : 630680170435  
Status : Not Answered  
Chosen Option : --

Q.3 Select the most appropriate option to fill in the blank.  
One hour has elapsed \_\_\_\_\_ she went outside.

- Ans
- A. before
  - B. since
  - C. after
  - D. early

Question ID : 630680175874  
Status : Answered  
Chosen Option : A

Q.4 एक वोल्टेज परिचालित ELCB को उस समय ट्रिप होने के लिए डिज़ाइन किया गया है जब संस्थापना के संरक्षित धातु कार्य और अर्थ के सामान्य द्रव्यमान के बीच विभवांतर \_\_\_\_\_ से अधिक हो जाता है।

- Ans
- A. 24 V
  - B. 6 V
  - C. 8 V
  - D. 12 V

Question ID : 630680780989  
Status : Answered  
Chosen Option : A

Q.5 The cable connected between the distributor to the consumers meter is called \_\_\_\_.

- Ans
- A. ring main
  - B. feeder
  - C. connector
  - D. service mains

Question ID : 630680780952  
Status : Answered  
Chosen Option : B

Q.6 Which of the following is considered as an earth fault?

- Ans
- A. Live portion of an electrical system getting accidentally connected to live portion of a different electrical system
  - B. Insulated portion of an electrical system getting accidentally connected to insulated portion of a different electrical system
  - C. Live portion of an electrical system getting accidentally connected to earth
  - D. Live portion of an electrical system getting accidentally connected to insulation medium

Question ID : 630680780970  
Status : Answered  
Chosen Option : C

Q.7 पवन टरबाइन प्रणाली में, रोटर को हवा की ओर लाने के लिए ऊर्ध्वाधर अक्ष के अनुदिश नैकेल (nacelle) को समायोजित करने को \_\_\_\_ कहा जाता है।

- Ans
- A. पिच कंट्रोल (pitch control)
  - B. टीटर कंट्रोल (teeter control)
  - C. हब कंट्रोल (hub control)
  - D. यॉ कंट्रोल (yaw control)

Question ID : 630680780960  
Status : Answered  
Chosen Option : A

Q.8 Shaggy horn wild ibex are found in which type of forests in India?

- Ans
- A. Mangrove forests
  - B. The thorn forests and scrubs
  - C. Tropical deciduous forests
  - D. Montane forests

Question ID : 630680511334  
Status : Not Answered  
Chosen Option : --

Q.9 Earthing of non-current carrying metal work and conductor, which is essential for safety is known as \_\_\_\_\_ earthing.

- Ans
- A. low voltage
  - B. high voltage
  - C. system
  - D. equipment

Question ID : 630680780963

Status : Answered

Chosen Option : C

Q.10 दो पाइप, P1 और P2, एक टैंक को क्रमशः 30 मिनट और 42 मिनट में भर सकते हैं। तीसरा पाइप P3, टैंक को 24 मिनट में खाली कर सकता है। सबसे पहले पाइप P1 और P2 खोले जाते हैं। 6 मिनट के बाद, पाइप P3 को भी खोल दिया जाता है। टैंक को पूरी तरह से भरने में कितना समय लगेगा?

- Ans
- A.  $32\frac{4}{7}$  मिनट
  - B.  $38\frac{4}{7}$  मिनट
  - C.  $48\frac{6}{13}$  मिनट
  - D.  $32\frac{2}{13}$  मिनट

Question ID : 630680629073

Status : Answered

Chosen Option : C

Q.11 यदि संख्या 3965742 में प्रत्येक सम अंक में 2 जोड़ा जाए और प्रत्येक विषम अंक में से 1 घटाया जाए, तो इस प्रकार निर्मित नई संख्या में कितने अंक एक से अधिक बार आएंगे?

- Ans
- A. एक भी नहीं
  - B. दो
  - C. एक
  - D. तीन

Question ID : 630680542535

Status : Answered

Chosen Option : B

Q.12 \_\_\_\_\_ relays are capable of maintaining their contacts in the last assumed position without the maintained current in the coil.

- Ans
- A. Sensing
  - B. Latching
  - C. Magnetic
  - D. Impulse

Question ID : 630680780992

Status : Answered

Chosen Option : A

Q.13 The decimal equivalent of the binary number  $[1011]_2$  is \_\_\_\_\_.

- Ans
- A.  $[100]_{10}$
  - B.  $[10]_{10}$
  - C.  $[111]_{10}$
  - D.  $[11]_{10}$

Question ID : 630680780966  
Status : Not Answered  
Chosen Option : --

Q.14 Which series MCBs are designed to protect circuits with resistive loads?

- Ans
- A. R series
  - B. DC series
  - C. L series
  - D. AC series

Question ID : 630680780988  
Status : Answered  
Chosen Option : D

Q.15 A three-phase balanced delta connection has a line voltage of 440 V. Determine the phase voltage.

- Ans
- A. 220 V
  - B. 440 V
  - C. 762.08 V
  - D. 254.04 V

Question ID : 630680780978  
Status : Answered  
Chosen Option : B

Q.16 बिजली के झटके के मामले में, पीड़ित को विद्युन्मय चालक के संपर्क से हटाने के लिए निम्नलिखित में से कौन-सी वस्तु उपयुक्त है?

- Ans
- A. सूखी लकड़ी की पट्टी
  - B. गीली लकड़ी की पट्टी
  - C. धातु की छड़
  - D. नंगे मानव हाथ

Question ID : 630680781003  
Status : Answered  
Chosen Option : A

Q.17 What is the possible reason for DC motor failing to start upon connecting to supply?

- Ans  A. Brushes ahead of neutral plane  
 B. Short circuit between filed coil turns  
 C. Loose foundation bolts  
 D. Open circuit in starter

Question ID : 630680780947

Status : Answered

Chosen Option : B

Q.18 Match the following.

List I	List II
a) Resistance	i) Henry
b) Inductance	ii) Volts
c) Voltage	iii) Farad
d) Capacitance	iv) Ohms

- Ans  A. a-iv, b-ii, c-i, d-iii  
 B. a-iv, b-i, c-ii, d-iii  
 C. a-iii, b-ii, c-i, d-iv  
 D. a-iii, b-ii, c-iv, d-i

Question ID : 630680780977

Status : Answered

Chosen Option : B

Q.19 B.I.S. 9320 - 1979 के अनुसार, DC मशीनों में, जब उच्च वोल्टता परीक्षण प्रयुक्त किया जाता है, तो इन्सुलेशन प्रतिरोध \_\_\_\_\_ से कम नहीं होना चाहिए।

- Ans  A. 1 मेगा ओम  
 B. 100 मेगा ओम  
 C. 1 मिली ओम  
 D. 1 माइक्रो ओम

Question ID : 630680780949

Status : Answered

Chosen Option : B

Q.20 As continuity tests may not reveal internal short circuits in windings, it is recommended to perform which of the following tests to determine such short circuits?

- Ans  A. Armature reaction test  
 B. Resistance measurement test  
 C. Brush movement test  
 D. Insulation resistance test

Question ID : 630680780950  
Status : Answered  
Chosen Option : A

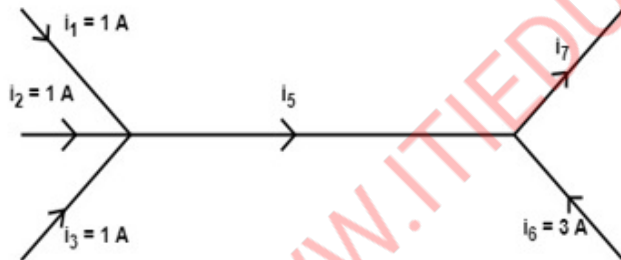
Section : Section E

Q.1 In a DC generator, the MMF due to armature conductors is absent in which of the following cases?

- Ans  A. Full load  
 B. No load  
 C. Above full load  
 D. Half full load

Question ID : 630680780939  
Status : Answered  
Chosen Option : B

Q.2 Find the current  $i_7$  in the following figure.



- Ans  A. 0 A  
 B. 6 A  
 C. 2 A  
 D. 3 A

Question ID : 630680780973  
Status : Answered  
Chosen Option : B

Q.3 A fuse selected for over-current protection should NOT have a fusing factor of more than

- Ans  A. 3.4  
 B. 1.4  
 C. 5.9  
 D. 8.3

Question ID : 630680780991  
Status : Answered  
Chosen Option : B

Q.4 In a certain code language, 'OWNS' is coded as '2964' and 'SONG' is coded as '6479'. What is the code for 'G' in the given code language?

- Ans  A. 6  
 B. 9  
 C. 7  
 D. 4

Question ID : 630680568451  
Status : Answered  
Chosen Option : C

Q.5 Select the most appropriate ANTONYM of the word 'Gorgeous' from the given sentence.

She is magnificent and brilliant, but her behaviour is dull but honest towards me.

- Ans  A. honest  
 B. dull  
 C. brilliant  
 D. magnificent

Question ID : 630680597335  
Status : Answered  
Chosen Option : B

Q.6 Determine the rating of a fuse having 4 strands each of 35 SWG - copper wire of 5 A.  
(Assume the paralleling factor as 0.8.)

- Ans  A. 35 A  
 B. 16 A  
 C. 2.5 A  
 D. 25 A

Question ID : 630680781001  
Status : Not Answered  
Chosen Option : --

Q.7 In a transformer, the number of turns per volt is 10. The primary voltage is 110 V. Find the primary and secondary turns required if secondary voltage is to be 25 V.

- Ans
- A. Primary turns = 25 and secondary turns = 11
  - B. Primary turns = 110 and secondary turns = 25
  - C. Primary turns = 1100 and secondary turns = 250
  - D. Primary turns = 11 and secondary turns = 25

Question ID : 630680781021  
Status : Answered  
Chosen Option : D

Q.8 गंदे जल की आपूर्ति की निरंतर समस्या के कारण, किसी सोसायटी की जनसंख्या 2500 से घटकर 2275 हो जाती है। सोसायटी की जनसंख्या में कितने प्रतिशत की कमी होती है?

- Ans
- A. 9%
  - B. 11%
  - C. 10%
  - D. 8%

Question ID : 630680756624  
Status : Answered  
Chosen Option : A

Q.9 Which of the following is NOT true in case of DC motors?

- Ans
- A. DC compound motor has both shunt and series fields for producing the required main flux in the poles.
  - B. Never open the shunt field of a compound motor when the motor is operating at high load.
  - C. The direction of force produced on a current-carrying conductor placed in a magnetic field can be determined by Fleming's right-hand rule.
  - D. It is advisable to short-circuit the series field of the differential compound motor at the time of starting.

Question ID : 630680780945  
Status : Answered  
Chosen Option : A

Q.10 द्विधात्विक रिले जहां तापमान में परिवर्तन की प्रतिक्रिया में द्विधात्विक एलिमेंट अपना आकार बदलता है, \_\_\_\_\_ रिले की श्रेणी में आते हैं।

- Ans
- A. फेरीड
  - B. विद्युत चुंबकीय
  - C. लैचिंग
  - D. थर्मल

Question ID : 630680780994  
Status : Answered  
Chosen Option : D



Q.11 Which of the following methods is suggested to bring down the earth electrode resistance to an acceptable value?

- Ans
- A. Connecting a number of earth electrodes in series
  - B. Coating the earth electrodes with paint
  - C. Connecting a number of earth electrodes in parallel
  - D. Treating the earth pit with silica gel

Question ID : 630680780964  
Status : Answered  
Chosen Option : D

Q.12 Which of the following statements is NOT correct in case of a series circuit?

- Ans
- A. Total power is equal to the dissipated by the individual resistances
  - B. The sum of voltage drops across the individual resistances equals the applied voltage
  - C. The total resistance is always less than the sum of individual resistances that make up the circuit.
  - D. Current is the same in all parts of the circuit.

Question ID : 630680780982  
Status : Answered  
Chosen Option : C

Q.13 Which of the following statements is the best elaboration of India's state in the Global Hunger Index (GHI) 2023?

- Ans
- A. India ranks 125, and the report indicates significant progress against hunger since 2015.
  - B. India ranks 125, and the report suggests no change in the progress against hunger since 2015.
  - C. India ranks 111, and the report highlights substantial progress against hunger since 2015.
  - D. India ranks 111, and the report suggests progress against hunger has nearly halted since 2015.

Question ID : 630680579879  
Status : Not Answered  
Chosen Option : --

Q.14 निम्नलिखित में से किसने 1930 में नमक कानून तोड़ने के लिए तमिलनाडु में नमक मार्च का आयोजन किया था?

- Ans
- A. के. केलप्पन
  - B. सी. राजगोपालाचारी
  - C. गोपालबन्धु चौधरी
  - D. अंबिका कांत सिन्हा

Question ID : 630680163726  
Status : Not Answered  
Chosen Option : --

Q.15 What is the rms value of the voltage of the sinusoidal wave if the peak value is 100 V?

- Ans  A. 282.4 V  
 B. 141.4 V  
 C. 70.7 V  
 D. 35.4 V

Question ID : 630680780956  
Status : Not Answered  
Chosen Option : --

Q.16 The no-load current in a transformer \_\_\_\_\_ the primary voltage.

- Ans  A. is in phase with  
 B. is exactly in phase opposition with  
 C. leads  
 D. lags

Question ID : 630680781018  
Status : Answered  
Chosen Option : A

Q.17 Match the following.

List I	List II
a) Moderator	i) Provides fission material
b) Fuel rods	ii) Cadmium
c) Control rods	iii) Transfers heat
d) Coolant	iv) Slows down neutrons

- Ans  A. a-iii, b-ii, c-iv, d-i  
 B. a-iv, b-ii, c-i, d-iii  
 C. a-iii, b-ii, c-i, d-iv  
 D. a-iv, b-i, c-ii, d-iii

Question ID : 630680780958  
Status : Answered  
Chosen Option : C

Q.18 In a current operated ELCB, the toroid ring is made of \_\_\_\_\_ material.

- Ans  A. high conductivity electrical  
 B. high permeability magnetic  
 C. high resistivity electrical  
 D. high reluctance magnetic

Question ID : 630680780986  
Status : Answered  
Chosen Option : A

Q.19 Reluctance and permeability in magnetic circuits are analogous to \_\_\_\_\_ and \_\_\_\_\_, respectively, in electric circuits.

- Ans
- A. conductivity; resistance
  - B. permanence; conductance
  - C. conductance; permanence
  - D. resistance; conductivity

Question ID : 630680780979  
Status : Answered  
Chosen Option : C

Q.20 Two wattmeters connected to measure the power of a three-phase, balanced load indicate 300 W and 500 W, respectively. What is the total power input to the load?

- Ans
- A. 173.2 W
  - B. 100 W
  - C. 800 W
  - D. 1558.8 W

Question ID : 630680780983  
Status : Answered  
Chosen Option : C

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