

WCL Assistant Foreman

Previous Year Paper

14 Oct, 2026





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सीआईएन: U10100MH1975GOI018626
वेबसाइट: www.westerncoal.in



Western Coalfields Limited

(A Miniratna Cat-1 Govt. of India undertaking)
Regd. Office: Coal Estate, Civil Lines,
Nagpur - 440001
CIN: U10100MH1975GOI018626
Website: www.westerncoal.in

Test Date	14/10/2026
Test Time	2:00 PM - 3:30 PM
Subject	Assistant Foreman Trainee Electrical

Section : Part 1 General Aptitude

Q.1 Which of the following successfully conducted an extensive, long-duration ground test of its Actively Cooled Scramjet Full Scale Combustor in January 2026?

- Ans
- ✓ 1. Defence Research and Development Laboratory, Hyderabad
 - ✗ 2. Hindustan Aeronautics Limited, Lucknow
 - ✗ 3. Bharat Electronics Limited, Bengaluru
 - ✗ 4. Bharat Dynamics Limited, Bhanur

Question ID : 4410091659066
Option 1 ID : 4410096550649
Option 2 ID : 4410096550650
Option 3 ID : 4410096550651
Option 4 ID : 4410096550652
Status : Answered
Chosen Option : 1

Q.2 On 3 June 2025, India secured the presidency of which international organization for a three-year term (2025–2028), marking the first time the post was decided through ballot-based elections?

- Ans
- ✓ 1. International Institute of Administrative Sciences (IIAS)
 - ✗ 2. International Solar Alliance (ISA)
 - ✗ 3. Shanghai Cooperation Organisation (SCO)
 - ✗ 4. Asian Infrastructure Investment Bank (AIIB)

Question ID : 4410092134075
Option 1 ID : 4410098399864
Option 2 ID : 4410098399865
Option 3 ID : 4410098399866
Option 4 ID : 4410098399867
Status : Answered
Chosen Option : 1

Q.3 According to the Ministry of Coal Annual Report 2024–25, which flagship is aimed at mechanising coal transportation from the mine pithead to the dispatch point?

- Ans
- ✓ 1. First Mile Connectivity (FMC) Initiative
 - ✗ 2. Coal Logistics Corridor Mission
 - ✗ 3. National Coal Evacuation Scheme
 - ✗ 4. Mine Developer and Operator (MDO) Programme

Question ID : 4410092134096
Option 1 ID : 4410098399948
Option 2 ID : 4410098399949
Option 3 ID : 4410098399950
Option 4 ID : 4410098399951
Status : Answered
Chosen Option : 3

Q.4 In July 2026, Coal India Limited (CIL) signed a joint venture agreement with which state utility to develop renewable energy projects in Uttar Pradesh?

- Ans ☒ 1. Uttar Pradesh Power Corporation Ltd (UPPCL)
- ☒ 2. Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd (UPRVUNL)
- ☒ 3. Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA)
- ☒ 4.

NTPC Limited

Question ID : 4410092134091
Option 1 ID : 4410098399928
Option 2 ID : 4410098399929
Option 3 ID : 4410098399930
Option 4 ID : 4410098399931
Status : Answered
Chosen Option : 3

Q.5 Study the following table and answer the question given below.

The table shows the percentage of marks obtained by six students in six subjects.

The maximum marks in each subject are 100.

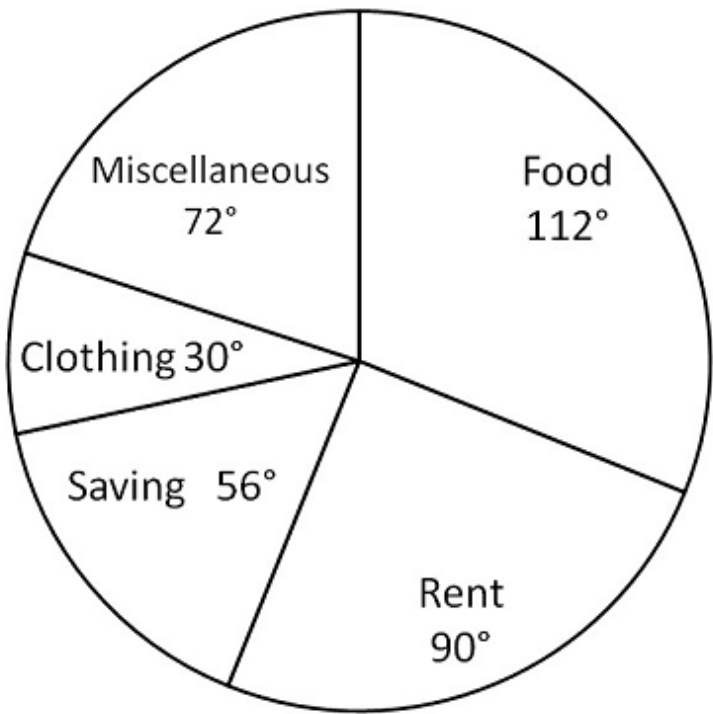
Subject/ Students	Science	English	Maths	Hindi	Social Science	Arts
Taniya	100	95	100	95	100	95
Mohit	90	95	90	80	70	100
Aman	95	80	70	90	85	80
Jagdish	90	100	90	50	95	90
Radha	80	100	85	80	90	90
Meera	70	90	95	70	80	90

What was the total marks obtained by Mohit in all the subjects?

- Ans ☒ 1. 530
- ☒ 2. 550
- ☒ 3. 525
- ☒ 4. 510

Question ID : 441009542415
Option 1 ID : 4410092125056
Option 2 ID : 4410092125057
Option 3 ID : 4410092125058
Option 4 ID : 4410092125059
Status : Answered
Chosen Option : 2

Q.6 The following pie-chart shows the monthly expenditure of a family on various items. If the family spends ₹6000 on Miscellaneous, answer the question.



What is the total monthly income of the family (in ₹)?

- Ans
- ☒ 1. 25000
 - ☒ 2. 30000
 - ☒ 3. 35000
 - ☒ 4. 40000

Question ID : 4410091758758

Option 1 ID : 4410096935165

Option 2 ID : 4410096935166

Option 3 ID : 4410096935167

Option 4 ID : 4410096935168

Status : Answered

Chosen Option : 4

Q.7 The given multiple bar graph shows the sales of mobile phones of three brands, X, Y, and Z, from six branches of a company (in ₹ lakhs). Study the graph carefully and answer the question that follows.



What percentage of the average sales of branches A, C, and E is the average sales of branches B, D, and F (round up to two decimal places)?

- Ans
- ✓ 1. 102.13%
 - ✗ 2. 93.37%
 - ✗ 3. 86.78%
 - ✗ 4. 97.92%

Question ID : 441009237650

Option 1 ID : 441009928968

Option 2 ID : 441009928969

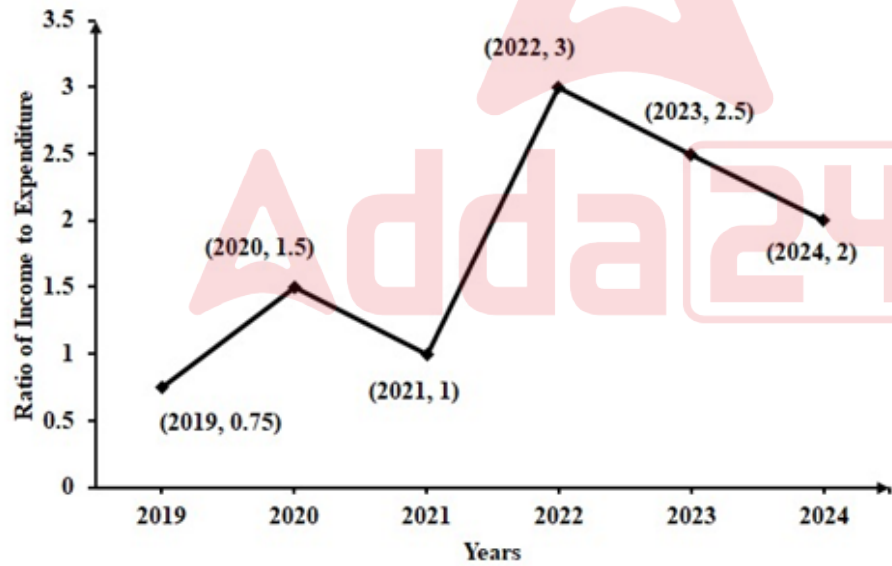
Option 3 ID : 441009928970

Option 4 ID : 441009928971

Status : Answered

Chosen Option : 2

Q.8 Study the given graph and answer the question that follows.



If the income shows positive growth every year throughout the period (2019 – 2024), then in how many years does the expenditure show a positive growth?

- Ans
- ✗ 1. 1
 - ✗ 2. 2
 - ✓ 3. 3
 - ✗ 4. 4

Question ID : 4410091502887

Option 1 ID : 4410095935820

Option 2 ID : 4410095935821

Option 3 ID : 4410095935822

Option 4 ID : 4410095935823

Status : Answered

Chosen Option : 2

Q.9 In the following question, a statement divided into different segments is given. Rearrange all the segments to form a coherent statement.

- A and responding to its environment
- B autonomously or semi-autonomously
- C a robot performs tasks
- D by following programmed instructions

Ans ☒ 1. C B D A
☒ 2. A B D C
☒ 3. B A D C
☒ 4. D A C B

Question ID : 4410091669673
Option 1 ID : 4410096589576
Option 2 ID : 4410096589577
Option 3 ID : 4410096589578
Option 4 ID : 4410096589579
Status : Answered
Chosen Option : 1

Q.10 What does the idiom “Throw down the gauntlet” mean?

Ans ☒ 1. To give up a fight
☒ 2. To offer a sincere apology
☒ 3. To accept defeat gracefully
☒ 4. To issue a challenge

Question ID : 441009752692
Option 1 ID : 4410092964707
Option 2 ID : 4410092964708
Option 3 ID : 4410092964709
Option 4 ID : 4410092964710
Status : Answered
Chosen Option : 3

Q.11 Which sentence best shows an indirect way of saying he doesn't like the story?
He closed the book without reading the last page.

Ans ☒ 1. He planned to reread the book.
☒ 2. He lost interest in the story.
☒ 3. He wanted to start a new book.
☒ 4. He finished the story.

Question ID : 4410092374954
Option 1 ID : 4410099340568
Option 2 ID : 4410099340569
Option 3 ID : 4410099340570
Option 4 ID : 4410099340571
Status : Answered
Chosen Option : 2

Q.12 Identify the ANTONYM of the highlighted word as used in the sentence: The scientist's findings were based on meticulous research and thorough documentation.

Ans ☒ 1. careless
☒ 2. precise
☒ 3. thorough
☒ 4. detailed

Question ID : 4410091670997
Option 1 ID : 4410096594732
Option 2 ID : 4410096594733
Option 3 ID : 4410096594734
Option 4 ID : 4410096594735
Status : Answered
Chosen Option : 4

Q.13 In a row of 45 people facing north, Shreya is 20th from the left end. If Raj sits 2nd to the right of Shreya, then what is Raj's position from the right end of the line?

Ans ☒ 1. 24th
☒ 2. 25th
☒ 3. 23rd
☒ 4. 26th

Question ID : 4410091007061
Option 1 ID : 4410093979858
Option 2 ID : 4410093979859
Option 3 ID : 4410093979860
Option 4 ID : 4410093979861
Status : Answered
Chosen Option : 3

Q.14 Based on the alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

- Ans ☒ 1. QVT
☒ 2. WAZ
☒ 3. MQP
☒ 4. LPO

Question ID : 441009263534

Option 1 ID : 4410091026599

Option 2 ID : 4410091026600

Option 3 ID : 4410091026601

Option 4 ID : 4410091026602

Status : Answered

Chosen Option : 1

Q.15 In a certain code language,

- A + B means 'A is the mother of B'
A – B means 'A is the brother of B'
A x B means 'A is the wife of B'
A ÷ B means 'A is the father of B'

Based on the above, how is X related to Y, if 'X ÷ Z x W - V + Y'?

- Ans ☒ 1. Mother's father
☒ 2. Mother's brother's wife's father
☒ 3. Sister's daughter's husband
☒ 4. Daughter's sister's husband's father

Question ID : 4410091706787

Option 1 ID : 4410096731933

Option 2 ID : 4410096731934

Option 3 ID : 4410096731935

Option 4 ID : 4410096731936

Status : Answered

Chosen Option : 1

Q.16 Refer to the following letter, symbol series and answer the question.
Counting to be done from left to right only.
(Left) & F V % A @ X \$ K U & B Y # N E S * B (Right)
How many such symbols are there each of which is immediately preceded by a letter and also immediately followed by another symbol?

- Ans ☒ 1. None
☒ 2. One
☒ 3. Two
☒ 4. Three

Question ID : 4410091706780

Option 1 ID : 4410096731905

Option 2 ID : 4410096731906

Option 3 ID : 4410096731907

Option 4 ID : 4410096731908

Status : Answered

Chosen Option : 1

Q.17 The average marks obtained in mathematics by the students of a class was 68. The average marks obtained by the boys is 60% more than the average marks obtained by the girls. If the ratio of the number of boys to that of girls is 5 : 2, then the average marks obtained by the girls is:

- Ans ☒ 1. 47.6
☒ 2. 53
☒ 3. 49.4
☒ 4. 43

Question ID : 441009582726

Option 1 ID : 4410092286030

Option 2 ID : 4410092286031

Option 3 ID : 4410092286032

Option 4 ID : 4410092286033

Status : Answered

Chosen Option : 1

Q.18 Girish scored 516 marks in an examination and was 24 marks short of 90% of maximum marks. In the same examination his friend scored 402 marks. What is the percentage of marks scored by his friend?

- Ans
- ✓ 1. 67%
 - ✗ 2. 66%
 - ✗ 3. 64%
 - ✗ 4. 65%

Question ID : 441009858025
Option 1 ID : 4410093385072
Option 2 ID : 4410093385073
Option 3 ID : 4410093385074
Option 4 ID : 4410093385075
Status : Answered
Chosen Option : 3

Q.19 Find the simple interest on ₹5000 at 6% per annum rate of interest for the period from 19 February 2024 to 20 April 2024.

- Ans
- ✓ 1. 50
 - ✗ 2. 49
 - ✗ 3. 51
 - ✗ 4. 48

Question ID : 441009570186
Option 1 ID : 4410092235864
Option 2 ID : 4410092235865
Option 3 ID : 4410092235866
Option 4 ID : 4410092235867
Status : Answered
Chosen Option : 1

Q.20 Simplify the following expression:

$$\sqrt{64} + 5^2 - (3^4)^{\frac{1}{2}} \times 2$$

- Ans
- ✗ 1. 1
 - ✗ 2. 5
 - ✗ 3. 10
 - ✓ 4. 15

Question ID : 4410091236549
Option 1 ID : 4410094879769
Option 2 ID : 4410094879770
Option 3 ID : 4410094879771
Option 4 ID : 4410094879772
Status : Answered
Chosen Option : 2

Section : Part 2 Technical

Q.1 Which of the following must be regularly checked to maintain the effectiveness of an earthing system?

- Ans
- ✗ 1. Color of the earth wire.
 - ✓ 2. Tightness of all earthing connections.
 - ✗ 3. Shape of the earth electrode.
 - ✗ 4. Size of the equipment enclosure.

Question ID : 4410092155140
Option 1 ID : 4410098482420
Option 2 ID : 4410098482421
Option 3 ID : 4410098482422
Option 4 ID : 4410098482423
Status : Answered
Chosen Option : 1

Q.2 Which winding in a Direct Current (DC) series motor carries the same current as the armature winding during operation?

- Ans
- ✗ 1. Compensating winding
 - ✗ 2. Diverter winding
 - ✓ 3. Field winding
 - ✗ 4. Shunt winding

Question ID : 4410092153685
Option 1 ID : 4410098476612
Option 2 ID : 4410098476613
Option 3 ID : 4410098476614
Option 4 ID : 4410098476615
Status : Answered
Chosen Option : 3

Q.3 Which Part and Section of the National Building Code of India 2016 (NBC 2016) specifies the requirements for electrical installations in buildings?

- Ans
- ✗ 1. Part 4, Section 1
 - ✗ 2. Part 7, Section 3
 - ✗ 3. Part 10, Section 5
 - ✓ 4. Part 8, Section 2

Question ID : 4410092153733
Option 1 ID : 4410098476804
Option 2 ID : 4410098476805
Option 3 ID : 4410098476806
Option 4 ID : 4410098476807
Status : Answered
Chosen Option : 2

Q.4 Match the devices/methods in Column A with their appropriate characteristics or applications in Column B.

Column A	Column B
A. Overcurrent Relay	1. Uses bimetallic strips for sensing overload
B. Thermal relay	2. Slowest in operation; requires discrimination
C. Thermal relay	3. Directly senses stator winding temperature

- Ans
1. A-1, B-2, C-3
2. A-2, B-1, C-3
3. A-3, B-2, C-1
4. A-2, B-3, C-1

Question ID : 4410091184804

Option 1 ID : 4410094673254

Option 2 ID : 4410094673255

Option 3 ID : 4410094673256

Option 4 ID : 4410094673257

Status : Answered

Chosen Option : 2

Q.5 Which type of relay is used to provide overcurrent protection for an alternator stator winding?

- Ans
1. IDMT overcurrent relay
2. Thermal overload relay
3. Gas-actuated Buchholz relay
4. Directional distance relay

Question ID : 4410092154884

Option 1 ID : 4410098481404

Option 2 ID : 4410098481405

Option 3 ID : 4410098481406

Option 4 ID : 4410098481407

Status : Answered

Chosen Option : 1

Q.6 Why is it important to calculate the average demand in power systems?

- Ans
1. To measure the peak demand at any given time.
2. To determine the minimum generation required to meet demand.
3. To calculate the average energy loss in transmission.
4. To estimate the amount of fuel required for maximum output.

Question ID : 441009143403

Option 1 ID : 441009569631

Option 2 ID : 441009569632

Option 3 ID : 441009569633

Option 4 ID : 441009569634

Status : Answered

Chosen Option : 2

Q.7 A single-phase shaded-pole induction motor is frequently overheating and drawing excessive current due to suspected internal electrical faults. Which maintenance action is most appropriate to identify and correct the problem?

- Ans
1. Lubricate the bearings
2. Inspect for winding insulation failure
3. Replace the brushes
4. Adjust the capacitor value

Question ID : 4410091575240

Option 1 ID : 4410096221632

Option 2 ID : 4410096221633

Option 3 ID : 4410096221634

Option 4 ID : 4410096221635

Status : Answered

Chosen Option : 2

Q.8 A 500 V DC shunt motor runs at 250 rpm when the armature current is 200 A. The armature resistance is 0.12 Ω. If the flux is reduced to 0.8 times its original value and the armature current becomes 100 A, the new speed of the motor is:

- Ans
1. 250 rpm
2. 280 rpm
3. 320 rpm
4. 400 rpm

Question ID : 4410091745972

Option 1 ID : 4410096885427

Option 2 ID : 4410096885428

Option 3 ID : 4410096885429

Option 4 ID : 4410096885430

Status : Answered

Chosen Option : 3

Q.9 When a DC motor operates such that the generated back emf exceeds the supply voltage and the excess energy is fed back to the source, the braking method being employed is:

- Ans
- ☒ 1. Plugging
 - ☒ 2. Dynamic braking
 - ☒ 3. Regenerative braking
 - ☒ 4. Mechanical braking

Question ID : 4410091466959
Option 1 ID : 4410095795789
Option 2 ID : 4410095795790
Option 3 ID : 4410095795791
Option 4 ID : 4410095795792
Status : Answered
Chosen Option : 3

Q.10 Two resistors of 10 Ω and 20 Ω are connected in series. What is the voltage drop across the 20 Ω resistor when a 30 V DC supply is applied across the series combination?

- Ans
- ☒ 1. 15 V
 - ☒ 2. 10 V
 - ☒ 3. 20 V
 - ☒ 4. 5 V

Question ID : 4410092153706
Option 1 ID : 4410098476696
Option 2 ID : 4410098476697
Option 3 ID : 4410098476698
Option 4 ID : 4410098476699
Status : Answered
Chosen Option : 3

Q.11 The maximum running torque (breakdown torque) of a squirrel cage induction motor is _____.

- Ans
- ☒ 1. Independent of rotor resistance
 - ☒ 2. Directly proportional to rotor resistance
 - ☒ 3. Inversely proportional to square of rotor reactance
 - ☒ 4. Highest at synchronous speed

Question ID : 4410091608691
Option 1 ID : 4410096353684
Option 2 ID : 4410096353685
Option 3 ID : 4410096353686
Option 4 ID : 4410096353687
Status : Answered
Chosen Option : 2

Q.12 Which formula defines the synchronous speed of a three-phase induction motor?

- Ans
- ☒ 1. Synchronous speed (N_s) = 120 x supply frequency (f) / number of poles (P)
 - ☒ 2. Synchronous speed (N_s) = 60 x number of poles (P) / supply frequency (f)
 - ☒ 3. Synchronous speed (N_s) = number of poles (P) x supply frequency (f)
 - ☒ 4. Synchronous speed (N_s) = supply frequency (f) / number of poles (P)

Question ID : 4410092153681
Option 1 ID : 4410098476596
Option 2 ID : 4410098476597
Option 3 ID : 4410098476598
Option 4 ID : 4410098476599
Status : Answered
Chosen Option : 1

Q.13 Slip power recovery schemes efficiently control the speed in Wound Rotor Induction Motor (WRIM). The power corresponding to rotor slip is:

- Ans
- ☒ 1. Used to magnetize the motor
 - ☒ 2. Dissipated as heat in rotor resistors
 - ☒ 3. Stored in a capacitor bank
 - ☒ 4. Recovered and fed back to the supply

Question ID : 4410091465878
Option 1 ID : 4410095791418
Option 2 ID : 4410095791419
Option 3 ID : 4410095791420
Option 4 ID : 4410095791421
Status : Answered
Chosen Option : 1

Q.14 Which principle is used in the operation of differential protection for transformers?

- Ans
- ☒ 1. Monitoring transformer oil temperature
 - ☒ 2. Measurement of voltage difference across windings
 - ☒ 3. Comparison of currents on primary and secondary sides
 - ☒ 4. Detection of frequency changes in transformer operation

Question ID : 4410092152587
Option 1 ID : 4410098472236
Option 2 ID : 4410098472237
Option 3 ID : 4410098472238
Option 4 ID : 4410098472239
Status : Answered
Chosen Option : 3

Q.15 Which characteristic distinguishes a disaster from a routine crisis in electrical engineering operations based on its operational impact and recovery requirements?

- Ans
- ✓ 1. A disaster causes severe interruption and requires external assistance.
 - ✗ 2. A disaster is resolved by routine organizational response procedures without external assistance.
 - ✗ 3. A disaster results in only minor operational disruption without affecting essential services.
 - ✗ 4. A disaster involves planned maintenance with scheduled system downtime.

Question ID : 4410092153734
Option 1 ID : 4410098476808
Option 2 ID : 4410098476809
Option 3 ID : 4410098476810
Option 4 ID : 4410098476811
Status : Answered
Chosen Option : 3

Q.16 Which statement best describes the difference between guarding and electrical insulation as safety measures in a substation?

- Ans
- ✗ 1. Guarding and electrical insulation both act as visual warning measures.
 - ✗ 2. Electrical insulation reduces current leakage, while guarding improves equipment cooling.
 - ✗ 3. Guarding and electrical insulation both provide identical electrical isolation between live conductors.
 - ✓ 4. Guarding provides a physical barrier, while electrical insulation prevents unintended electrical contact.

Question ID : 4410092153712
Option 1 ID : 4410098476720
Option 2 ID : 4410098476721
Option 3 ID : 4410098476722
Option 4 ID : 4410098476723
Status : Answered
Chosen Option : 4

Q.17 Which of the following describes the purpose of using solid neutral earthing in a power supply system?

- Ans
- ✗ 1. It increases the insulation resistance of the system.
 - ✗ 2. It eliminates the need for insulation in the system.
 - ✗ 3. It prevents all types of earth faults in the system.
 - ✓ 4. It limits the voltage rise during earth faults by providing a direct path to ground.

Question ID : 4410092154898
Option 1 ID : 4410098481460
Option 2 ID : 4410098481461
Option 3 ID : 4410098481462
Option 4 ID : 4410098481463
Status : Answered
Chosen Option : 4

Q.18 Which limitation is associated with the use of overcurrent-operated bimetallic thermal relays for alternator stator winding thermal protection?

- Ans
- ✗ 1. They are affected by variations in system frequency.
 - ✗ 2. They operate only during transient fault conditions.
 - ✓ 3. They do not detect overheating caused by cooling system failure.
 - ✗ 4. They require an external auxiliary power supply.

Question ID : 4410092153699
Option 1 ID : 4410098476668
Option 2 ID : 4410098476669
Option 3 ID : 4410098476670
Option 4 ID : 4410098476671
Status : Answered
Chosen Option : 4

Q.19 A newly installed electrical control room is located adjacent to a storage area containing flammable liquids. To provide appropriate firefighting equipment for both energized electrical equipment and nearby flammable liquid hazards, which combination is most suitable?

- Ans
- ☒ 1. Install water extinguishers near the control room and sand buckets near the storage area.
 - ☒ 2. Install foam extinguishers inside the control room and water hoses near the storage area.
 - ☒ 3. Install carbon dioxide (CO₂) extinguishers for the control room and foam extinguishers for the flammable liquid storage area.
 - ☒ 4. Install dry chemical powder extinguishers inside the control room and water extinguishers near the storage area.

Question ID : 4410092153730
Option 1 ID : 4410098476792
Option 2 ID : 4410098476793
Option 3 ID : 4410098476794
Option 4 ID : 4410098476795
Status : Answered
Chosen Option : 3

Q.20 Which construction feature distinguishes armored cables from unarmored cables in electrical installations?

- Ans
- ☒ 1. Armored cables reduce voltage drop during normal load operation.
 - ☒ 2. Armored cables provide higher current-carrying capacity by construction.
 - ☒ 3. Armored cables use color-coded outer sheaths for cable identification.
 - ☒ 4. Armored cables include an additional armor layer for mechanical protection.

Question ID : 4410092153725
Option 1 ID : 4410098476772
Option 2 ID : 4410098476773
Option 3 ID : 4410098476774
Option 4 ID : 4410098476775
Status : Answered
Chosen Option : 4

Q.21 What role do carbon brushes play in the schematic diagram of an electrical machine employing slip rings?

- Ans
- ☒ 1. They generate the main magnetic flux within the machine.
 - ☒ 2. They control the waveform of the generated electromotive force.
 - ☒ 3. They maintain electrical contact with the rotating slip rings.
 - ☒ 4. They regulate the magnitude of the external load current.

Question ID : 4410092153668
Option 1 ID : 4410098476544
Option 2 ID : 4410098476545
Option 3 ID : 4410098476546
Option 4 ID : 4410098476547
Status : Answered
Chosen Option : 3

Q.22 In the phasor diagram of 3-phase alternator loaded at a leading power factor, the armature reaction causes which type of effect on the main field flux?

- Ans
- ☒ 1. Weakening
 - ☒ 2. Strengthening
 - ☒ 3. No effect
 - ☒ 4. Random change

Question ID : 4410091575309
Option 1 ID : 4410096221904
Option 2 ID : 4410096221905
Option 3 ID : 4410096221906
Option 4 ID : 4410096221907
Status : Answered
Chosen Option : 2

Q.23 Which operational issue may arise if the capacitor in a capacitor run motor fails open during normal running conditions?

- Ans
- ☒ 1. The motor will run with reduced torque and increased vibration
 - ☒ 2. The speed will double
 - ☒ 3. The main winding will burn out instantly
 - ☒ 4. The motor will stop immediately

Question ID : 4410092152574
Option 1 ID : 4410098472184
Option 2 ID : 4410098472185
Option 3 ID : 4410098472186
Option 4 ID : 4410098472187
Status : Answered
Chosen Option : 1

Q.24 Single phasing fault of a 3-phase induction motor occurs when _____.

- Ans
- ☒ 1. any one phase of motor winding is grounded
 - ☒ 2. any one phase of motor is overloaded
 - ☒ 3. any one phase of supply line is lost
 - ☒ 4. all three phases are short circuited

Question ID : 4410091414432
Option 1 ID : 4410095586698
Option 2 ID : 4410095586699
Option 3 ID : 4410095586700
Option 4 ID : 4410095586701
Status : Answered
Chosen Option : 3

Q.25 A protective relay is intentionally provided with a preset operating time delay to prevent unnecessary tripping during transient faults. What is this intentional operating delay called in protective relay terminology?

- Ans
- ☒ 1. Relay pick-up time
 - ☒ 2. Relay overshoot time
 - ☒ 3. Relay time setting
 - ☒ 4. Relay seal-in time

Question ID : 4410092153700
Option 1 ID : 4410098476672
Option 2 ID : 4410098476673
Option 3 ID : 4410098476674
Option 4 ID : 4410098476675
Status : Answered
Chosen Option : 1

Q.26 In a power distribution system, which parameter primarily determines the minimum cross-sectional area of an earthing conductor under IS 3043 and the adiabatic sizing principle?

- Ans
- ☒ 1. Soil resistivity at installation site
 - ☒ 2. Maximum possible fault current
 - ☒ 3. Ambient temperature around conductor
 - ☒ 4. Voltage rating of equipment

Question ID : 4410092153707
Option 1 ID : 4410098476700
Option 2 ID : 4410098476701
Option 3 ID : 4410098476702
Option 4 ID : 4410098476703
Status : Answered
Chosen Option : 2

Q.27 Which device is specifically used to isolate a section of an electrical power system for maintenance when no load current is flowing?

- Ans
- ☒ 1. Fuse
 - ☒ 2. Load break switch
 - ☒ 3. Isolator
 - ☒ 4. Circuit breaker

Question ID : 4410092153692
Option 1 ID : 4410098476640
Option 2 ID : 4410098476641
Option 3 ID : 4410098476642
Option 4 ID : 4410098476643
Status : Answered
Chosen Option : 3

Q.28 Which of the following correctly describes the function of 100% stator winding earth fault protection in an alternator?

- Ans
- ☒ 1. It detects faults only near the neutral point of the stator winding
 - ☒ 2. It detects faults only in the first 80 percent of the stator winding
 - ☒ 3. It detects faults only near the line end of the stator winding
 - ☒ 4. It detects earth faults occurring at any point along the entire stator winding.

Question ID : 4410092153694
Option 1 ID : 4410098476648
Option 2 ID : 4410098476649
Option 3 ID : 4410098476650
Option 4 ID : 4410098476651
Status : Answered
Chosen Option : 4

Q.29 What does the term 'demand factor' refer to in the context of power generation economics?

- Ans
- ☒ 1. The ratio of maximum demand to the total connected load
 - ☒ 2. The ratio of average load to the connected load
 - ☒ 3. The ratio of connected load to maximum demand
 - ☒ 4. The ratio of energy consumed to the maximum demand

Question ID : 4410092154891
Option 1 ID : 4410098481432
Option 2 ID : 4410098481433
Option 3 ID : 4410098481434
Option 4 ID : 4410098481435
Status : Answered
Chosen Option : 1

Q.30 In a DC series motor, how are the field winding and armature winding connected?

- Ans
- ☐ 1. Field winding is both series and parallel with the armature winding
 - ☐ 2. Field winding is separately excited from the armature
 - ☒ 3. Field winding is in series with the armature winding
 - ☐ 4. Field winding is in parallel with the armature winding

Question ID : 4410092153669
Option 1 ID : 4410098476548
Option 2 ID : 4410098476549
Option 3 ID : 4410098476550
Option 4 ID : 4410098476551
Status : Answered
Chosen Option : 3

Q.31 What happens to the starting torque if all external resistance is removed from the rotor circuit of a slip ring induction motor at the moment of starting?

- Ans
- ☐ 1. Starting torque becomes zero
 - ☐ 2. Starting torque will be higher than with inserting external resistances
 - ☒ 3. Starting torque will be low compared to inserting external resistances
 - ☐ 4. Starting torque remains unchanged

Question ID : 4410092152572
Option 1 ID : 4410098472176
Option 2 ID : 4410098472177
Option 3 ID : 4410098472178
Option 4 ID : 4410098472179
Status : Answered
Chosen Option : 2

Q.32 Which property of the fuse element material enables a fuse to protect sensitive electronic devices by melting rapidly during an overcurrent condition?

- Ans
- ☒ 1. Low melting point of the fuse element material
 - ☐ 2. High thermal inertia of the fuse element material
 - ☐ 3. Long intentional operating delay of the fuse element
 - ☐ 4. Large physical dimensions of the fuse element

Question ID : 4410092153722
Option 1 ID : 4410098476760
Option 2 ID : 4410098476761
Option 3 ID : 4410098476762
Option 4 ID : 4410098476763
Status : Answered
Chosen Option : 1

Q.33 Which law states that the algebraic sum of all voltages around a closed loop in an electrical circuit is zero?

- Ans
- ☐ 1. Ohm's Law
 - ☐ 2. Faraday's Law
 - ☐ 3. Coulomb's Law
 - ☒ 4. Kirchhoff's Voltage Law

Question ID : 4410092155106
Option 1 ID : 4410098482284
Option 2 ID : 4410098482285
Option 3 ID : 4410098482286
Option 4 ID : 4410098482287
Status : Answered
Chosen Option : 4

Q.34 Why is restricted earth fault (REF) protection preferred over sensitive earth fault (SEF) protection for the stator winding of an alternator in high-value installations?

- Ans
- ☐ 1. Sensitive earth fault protection is more likely to operate for external faults.
 - ☐ 2. Restricted earth fault protection detects faults outside the stator winding.
 - ☒ 3. Restricted earth fault protection detects faults only within the protected stator winding zone.
 - ☐ 4. Sensitive earth fault protection provides better protection within the stator winding zone.

Question ID : 4410092154883
Option 1 ID : 4410098481400
Option 2 ID : 4410098481401
Option 3 ID : 4410098481402
Option 4 ID : 4410098481403
Status : Answered
Chosen Option : 3

Q.35 A capacitor-run motor primarily uses a capacitor connected in series with which winding during both starting and running operations?

- Ans
- ☒ 1. Main winding
 - ☒ 2. Commutator winding
 - ☒ 3. Auxiliary (starting) winding
 - ☒ 4. Field winding

Question ID : 4410091466720
Option 1 ID : 4410095794833
Option 2 ID : 4410095794834
Option 3 ID : 4410095794835
Option 4 ID : 4410095794836
Status : Answered
Chosen Option : 3

Q.36 Which change in the phase relationship between armature current and terminal voltage is observed when a three-phase synchronous motor operating at constant mechanical load transitions from normal excitation to over-excitation?

- Ans
- ☒ 1. Armature current lags terminal voltage by a larger angle
 - ☒ 2. Armature current leads terminal voltage by an increasing angle
 - ☒ 3. Armature current remains in phase with terminal voltage
 - ☒ 4. Armature current maintains a zero phase displacement

Question ID : 4410092153679
Option 1 ID : 4410098476588
Option 2 ID : 4410098476589
Option 3 ID : 4410098476590
Option 4 ID : 4410098476591
Status : Answered
Chosen Option : 2

Q.37 Which situation requires the use of a junction box in an electrical cable installation?

- Ans
- ☒ 1. When terminating a cable run without electrical interconnection
 - ☒ 2. When mechanically supporting cables over extended distances
 - ☒ 3. When increasing the voltage rating of an installed cable
 - ☒ 4. When interconnecting multiple cable runs at a common connection point

Question ID : 4410092153728
Option 1 ID : 4410098476784
Option 2 ID : 4410098476785
Option 3 ID : 4410098476786
Option 4 ID : 4410098476787
Status : Answered
Chosen Option : 4

Q.38 A three-phase semiconverter circuit has three SCRs and three diodes. The interval of firing of SCRs for this circuit will be:

- Ans
- ☒ 1. 30°
 - ☒ 2. 60°
 - ☒ 3. 120°
 - ☒ 4. 90°

Question ID : 4410091325234
Option 1 ID : 4410095232400
Option 2 ID : 4410095232401
Option 3 ID : 4410095232402
Option 4 ID : 4410095232403
Status : Answered
Chosen Option : 1

Q.39 Which of the following is a disadvantage of using rotor resistance control in a slip-ring induction motor for speed regulation in industrial drives?

- Ans
- ☒ 1. Speed control is highly unstable under load
 - ☒ 2. Significant power loss occurs in external resistors
 - ☒ 3. Number of stator poles must be increased
 - ☒ 4. Slip remains constant during speed control

Question ID : 4410092153683
Option 1 ID : 4410098476604
Option 2 ID : 4410098476605
Option 3 ID : 4410098476606
Option 4 ID : 4410098476607
Status : Answered
Chosen Option : 2

Q.40 What is the equivalent resistance when three resistors of 2 Ω, 4 Ω, and 6 Ω are connected in series?

- Ans
- ☒ 1. 1.2 ohms
 - ☒ 2. 4 ohms
 - ☒ 3. 2 ohms
 - ☒ 4. 12 ohms

Question ID : 4410092153674
Option 1 ID : 4410098476568
Option 2 ID : 4410098476569
Option 3 ID : 4410098476570
Option 4 ID : 4410098476571
Status : Answered
Chosen Option : 4

Q.41 Which of the following best describes energy demand in an energy planning system?

- Ans
- ☒ 1. The total energy consumed by residential households only
 - ☒ 2. The total energy supplied to the electrical power grid
 - ☒ 3. The total energy required by all sectors within a region
 - ☒ 4. The total energy lost during electrical power transmission

Question ID : 4410092153672
Option 1 ID : 4410098476560
Option 2 ID : 4410098476561
Option 3 ID : 4410098476562
Option 4 ID : 4410098476563
Status : Answered
Chosen Option : 3

Q.42 Which method is used to provide artificial respiration (rescue breathing) to an electric shock victim who is not breathing but has a maintained airway?

- Ans
- ☒ 1. Using a mechanical ventilator system
 - ☒ 2. Providing chest compressions only
 - ☒ 3. Using an automated defibrillation device
 - ☒ 4. Providing mouth-to-mouth ventilation

Question ID : 4410092153731
Option 1 ID : 4410098476796
Option 2 ID : 4410098476797
Option 3 ID : 4410098476798
Option 4 ID : 4410098476799
Status : Answered
Chosen Option : 2

Q.43 In an autotransformer, why is less copper required compared to a two-winding transformer having the same volt-ampere (VA) rating?

- Ans
- ☒ 1. It operates at a lower supply frequency
 - ☒ 2. It uses single continuous winding to both circuits
 - ☒ 3. It operates without producing magnetic flux
 - ☒ 4. It uses an air-core magnetic structure

Question ID : 4410092153671
Option 1 ID : 4410098476556
Option 2 ID : 4410098476557
Option 3 ID : 4410098476558
Option 4 ID : 4410098476559
Status : Answered
Chosen Option : 2

Q.44 A transformer rated below 50 kVA is usually cooled by natural air. Medium-capacity distribution transformers are typically cooled by oil-immersed system. In such transformers, the oil serves both as a cooling medium and as insulation between windings. What can be the correct cooling arrangement and oil function for medium-size distribution transformers?

- Ans
- ☒ 1. Air-natural cooling; oil functions only as a dielectric within bushings.
 - ☒ 2. Air-blast cooling; oil is not used in distribution transformers.
 - ☒ 3. Oil-immersed tank; oil transfers heat from the windings to the tank surface and provides insulation between primary and secondary windings.
 - ☒ 4. Water-jacket cooling; water directly contacts the windings to provide both cooling and insulation.

Question ID : 4410091352417
Option 1 ID : 4410095341856
Option 2 ID : 4410095341857
Option 3 ID : 4410095341858
Option 4 ID : 4410095341859
Status : Answered
Chosen Option : 3

Q.45 In an electrical power system, the current differential relay has high sensitivity and an ability to detect internal faults. Which of the following statements correctly describes the current differential relay application?

- Ans
- ☒ 1. Transmission line protection over long distances
 - ☒ 2. Busbar protection with multiple incoming and outgoing feeders
 - ☒ 3. Overcurrent protection for distribution transformers
 - ☒ 4. Frequency instability protection in large generators

Question ID : 441009247022
Option 1 ID : 441009962377
Option 2 ID : 441009962378
Option 3 ID : 441009962379
Option 4 ID : 441009962380
Status : Answered
Chosen Option : 3

Q.46 A transmission network with multiple lines operating at different voltage levels and interconnected sources uses current graded protection to coordinate between main and backup relays. What is the primary challenge when applying current graded protection in such a system?

- Ans
- ✓ 1. Variation of fault current levels makes reliable relay current setting coordination difficult
 - ✗ 2. Relay coordination becomes impossible because of transmission line length alone
 - ✗ 3. Protection requires a dedicated relay at every busbar irrespective of system design
 - ✗ 4. Current graded protection inherently produces longer fault clearance times than time graded protection

Question ID : 4410092153693
Option 1 ID : 4410098476644
Option 2 ID : 4410098476645
Option 3 ID : 4410098476646
Option 4 ID : 4410098476647
Status : Answered
Chosen Option : 4

Q.47 In the equivalent circuit of a single-phase induction motor, neglecting core losses primarily eliminates which component or effect?

- Ans
- ✓ 1. The magnetizing branch representing iron loss and magnetizing current
 - ✗ 2. The rotor circuit representing mechanical losses
 - ✗ 3. The stator impedance representing copper losses
 - ✗ 4. The auxiliary winding circuit used for starting

Question ID : 4410091453915
Option 1 ID : 4410095743961
Option 2 ID : 4410095743962
Option 3 ID : 4410095743963
Option 4 ID : 4410095743964
Status : Answered
Chosen Option : 3

Q.48 What parameter is determined by performing a direct loading test on a single-phase transformer under rated operating conditions?

- Ans
- ✗ 1. Magnetizing current
 - ✗ 2. Only voltage ratio
 - ✗ 3. Core Loss Only
 - ✓ 4. Total loss and efficiency

Question ID : 4410092153670
Option 1 ID : 4410098476552
Option 2 ID : 4410098476553
Option 3 ID : 4410098476554
Option 4 ID : 4410098476555
Status : Answered
Chosen Option : 4

Q.49 During overhead transmission line installation, which is the primary technical criterion for selecting a conductor binding material to ensure long-term joint reliability?

- Ans
- ✗ 1. Color of the binding material for visual identification
 - ✗ 2. Density of the binding material to reduce installation weight
 - ✗ 3. Market price fluctuations of the binding wire material
 - ✓ 4. Compatibility with the conductor material to avoid galvanic corrosion

Question ID : 4410092153719
Option 1 ID : 4410098476748
Option 2 ID : 4410098476749
Option 3 ID : 4410098476750
Option 4 ID : 4410098476751
Status : Answered
Chosen Option : 2

Q.50 Which of the following would NOT be a factor in determining the pull-out torque of a synchronous motor?

- Ans
- ✗ 1. Excitation voltage
 - ✗ 2. Terminal voltage
 - ✗ 3. Synchronous reactance
 - ✓ 4. Load inertia

Question ID : 4410091422346
Option 1 ID : 4410095618290
Option 2 ID : 4410095618291
Option 3 ID : 4410095618292
Option 4 ID : 4410095618293
Status : Answered
Chosen Option : 3

Q.51 In a power supply system, the term "maximum demand" refers to:

- Ans
- ☒ 1. The average electrical load supplied during the same time interval.
 - ☐ 2. The highest electrical load recorded during a specified time interval.
 - ☐ 3. The connected electrical load installed in the consumer's premises.
 - ☐ 4. The continuous electrical load carried under normal operating conditions.

Question ID : 4410092154890
Option 1 ID : 4410098481428
Option 2 ID : 4410098481429
Option 3 ID : 4410098481430
Option 4 ID : 4410098481431
Status : Answered
Chosen Option : 2

Q.52 In a three-phase autotransformer having the same kVA rating and voltage ratio as a two-winding transformer, the short-circuit current is usually:

- Ans
- ☒ 1. Higher, because the leakage reactance is smaller
 - ☐ 2. Lower, because the leakage reactance is larger
 - ☐ 3. Same, since both have identical construction
 - ☐ 4. Dependent mainly on supply frequency

Question ID : 4410091397678
Option 1 ID : 4410095520452
Option 2 ID : 4410095520453
Option 3 ID : 4410095520454
Option 4 ID : 4410095520455
Status : Answered
Chosen Option : 3

Q.53 What happens to the running torque of a synchronous motor if the load on the shaft increases suddenly?

- Ans
- ☐ 1. The running torque decreases as load increases
 - ☐ 2. The running torque drops to zero when the load increases
 - ☒ 3. The running torque increases to match the new load torque
 - ☐ 4. The running torque remains unchanged regardless of load

Question ID : 4410092152570
Option 1 ID : 4410098472168
Option 2 ID : 4410098472169
Option 3 ID : 4410098472170
Option 4 ID : 4410098472171
Status : Answered
Chosen Option : 1

Q.54 If a circuit breaker has a pre-arcing time of 10 milliseconds and an arcing time of 15 milliseconds, determine the total interruption time of the circuit breaker.

- Ans
- ☐ 1. 15 milliseconds
 - ☒ 2. 25 milliseconds
 - ☐ 3. 10 milliseconds
 - ☐ 4. 40 milliseconds

Question ID : 4410092153687
Option 1 ID : 4410098476620
Option 2 ID : 4410098476621
Option 3 ID : 4410098476622
Option 4 ID : 4410098476623
Status : Answered
Chosen Option : 2

Q.55 Why should distribution board circuit breakers in an electrical workshop be permanently and accurately labeled?

- Ans
- ☒ 1. To facilitate rapid isolation of the correct circuit during fault conditions or maintenance activities
 - ☐ 2. To improve voltage regulation by reducing the impedance of feeder circuits
 - ☐ 3. To increase the interrupting capacity of protective devices during short-circuit faults
 - ☐ 4. To minimize conductor heating by automatically balancing load currents among circuits

Question ID : 4410092153729
Option 1 ID : 4410098476788
Option 2 ID : 4410098476789
Option 3 ID : 4410098476790
Option 4 ID : 4410098476791
Status : Answered
Chosen Option : 1

Q.56 If two power stations have identical installed capacities but one has a demand factor of 0.8 and the other 0.5, what can be inferred about their economics of generation?

- Ans
- ☒ 1. Demand factor only affects fuel efficiency, not cost per unit
 - ☐ 2. The station with demand factor 0.8 generates electricity more economically per unit
 - ☒ 3. Both stations have identical cost per unit due to same capacity
 - ☒ 4. The station with demand factor 0.5 generates electricity more economically per unit

Question ID : 4410092152565
Option 1 ID : 4410098472148
Option 2 ID : 4410098472149
Option 3 ID : 4410098472150
Option 4 ID : 4410098472151
Status : Answered
Chosen Option : 2

Q.57 Which statement correctly defines prospective current in an electrical protective system?

- Ans
- ☒ 1. It is the average current value measured during normal operation after a fuse is replaced by a link.
 - ☒ 2. It is the instantaneous current value when a circuit is energized under normal operating conditions.
 - ☐ 3. It is the r.m.s. value of current that would flow immediately after a fuse is replaced by negligible impedance link.
 - ☒ 4. It is the peak value of current flowing before a fuse operates during short-duration overload conditions.

Question ID : 4410092153688
Option 1 ID : 4410098476624
Option 2 ID : 4410098476625
Option 3 ID : 4410098476626
Option 4 ID : 4410098476627
Status : Answered
Chosen Option : 2

Q.58 A technician is assigned to recover SF₆ gas from a decommissioned circuit breaker. What is the most environmentally responsible procedure to follow?

- Ans
- ☒ 1. Dilute the SF₆ gas with air before releasing it.
 - ☐ 2. Recover the SF₆ gas using a sealed recovery system.
 - ☒ 3. Vent the SF₆ gas directly into the atmosphere.
 - ☒ 4. Release the SF₆ gas into a ventilated enclosure.

Question ID : 4410092155123
Option 1 ID : 4410098482352
Option 2 ID : 4410098482353
Option 3 ID : 4410098482354
Option 4 ID : 4410098482355
Status : Answered
Chosen Option : 2

Q.59 Which statement correctly differentiates an isolated neutral system from a solidly earthed neutral system?

- Ans
- ☒ 1. A solidly earthed neutral system prevents earth faults.
 - ☒ 2. A solidly earthed neutral system is intentionally isolated from earth.
 - ☐ 3. An isolated neutral system does not provide a direct connection between the neutral and earth.
 - ☒ 4. An isolated neutral system connects the neutral to earth through a resistor.

Question ID : 4410092153710
Option 1 ID : 4410098476712
Option 2 ID : 4410098476713
Option 3 ID : 4410098476714
Option 4 ID : 4410098476715
Status : Answered
Chosen Option : 3

Q.60 According to standard engineering practice, which insulation material is preferred for high-voltage underground power cables because of its superior electrical and thermal performance?

- Ans
- ☐ 1. Cross-linked polyethylene (XLPE) insulation
 - ☒ 2. Polyvinyl chloride (PVC) insulation
 - ☒ 3. Rubber insulation
 - ☒ 4. Vulcanized rubber (VIR) insulation

Question ID : 4410092153726
Option 1 ID : 4410098476776
Option 2 ID : 4410098476777
Option 3 ID : 4410098476778
Option 4 ID : 4410098476779
Status : Answered
Chosen Option : 1

Q.61 According to Kirchhoff's Current Law (KCL), which statement is correct for a circuit junction?

- Ans ☒ 1. The algebraic sum of voltages around the junction is zero.
- ☒ 2. The current entering a junction is always greater than the current leaving it.
- ☒ 3. The algebraic sum of currents at a junction is zero.
- ☒ 4. The current through each branch connected to the junction is always equal.

Question ID : 4410092154893
Option 1 ID : 4410098481440
Option 2 ID : 4410098481441
Option 3 ID : 4410098481442
Option 4 ID : 4410098481443
Status : Answered
Chosen Option : 3

Q.62 How many SCRs are used in a single-phase semi-converter circuit?

- Ans ☒ 1. 3
- ☒ 2. 2
- ☒ 3. 4
- ☒ 4. 1

Question ID : 4410092152575
Option 1 ID : 4410098472188
Option 2 ID : 4410098472189
Option 3 ID : 4410098472190
Option 4 ID : 4410098472191
Status : Answered
Chosen Option : 2

Q.63 What is the primary advantage of using a dedicated earthing switch instead of relying solely on the system grounding arrangement for maintenance isolation?

- Ans ☒ 1. Provides a direct and visible grounding point for safely earthing the isolated circuit
- ☒ 2. Reduces the physical size of switchgear panels
- ☒ 3. Eliminates the need for routine maintenance checks
- ☒ 4. Increases the continuous current-carrying capacity of the power system

Question ID : 4410092153723
Option 1 ID : 4410098476764
Option 2 ID : 4410098476765
Option 3 ID : 4410098476766
Option 4 ID : 4410098476767
Status : Answered
Chosen Option : 1

Q.64 Which formula is used to determine the three-phase short-circuit apparent power (kVA) at a fault location using the equivalent system impedance?

- Ans ☒ 1. Short-circuit kVA = Equivalent impedance minus system voltage magnitude
- ☒ 2. Short-circuit kVA = (System voltage magnitude)² ÷ equivalent fault impedance
- ☒ 3. Short-circuit kVA = System voltage magnitude ÷ fault current magnitude
- ☒ 4. Short-circuit kVA = Equivalent fault impedance × fault current magnitude

Question ID : 4410092153686
Option 1 ID : 4410098476616
Option 2 ID : 4410098476617
Option 3 ID : 4410098476618
Option 4 ID : 4410098476619
Status : Answered
Chosen Option : 4

Q.65 Which of the following is a distinguishing characteristic of the neutral conductor in a three-phase four-wire AC distribution system compared to the phase conductors?

- Ans ☒ 1. It carries the same line-to-earth voltage as the phase conductors.
- ☒ 2. It always carries the full load current under normal operating conditions.
- ☒ 3. It is maintained at zero or near earth potential under normal operating conditions.
- ☒ 4. It requires higher insulation than the phase conductors.

Question ID : 4410092153720
Option 1 ID : 4410098476752
Option 2 ID : 4410098476753
Option 3 ID : 4410098476754
Option 4 ID : 4410098476755
Status : Answered
Chosen Option : 2

Q.66 If the breather of a transformer oil storage tank becomes clogged, what is the most likely operational consequence?

- Ans
- ✓ 1. Moisture absorption into transformer oil
 - ✗ 2. Sudden oil leakage from tank
 - ✗ 3. Faster oxidation of transformer core
 - ✗ 4. Increased oil temperature rapidly

Question ID : 4410092153715
Option 1 ID : 4410098476732
Option 2 ID : 4410098476733
Option 3 ID : 4410098476734
Option 4 ID : 4410098476735
Status : Answered
Chosen Option : 1

Q.67 What is an essential safety precaution before commencing maintenance work on a high-voltage underground cable?

- Ans
- ✓ 1. Ensure cable is properly isolated and earthed before maintenance.
 - ✗ 2. Check the cable tags and identification only.
 - ✗ 3. Wear insulated gloves without isolating it while handling.
 - ✗ 4. Earth the cable without isolating it from the power supply.

Question ID : 4410092153717
Option 1 ID : 4410098476740
Option 2 ID : 4410098476741
Option 3 ID : 4410098476742
Option 4 ID : 4410098476743
Status : Answered
Chosen Option : 1

Q.68 Which switching sequence is correct for isolating electrical equipment before maintenance?

- Ans
- ✗ 1. Open isolator first, then open circuit breaker
 - ✗ 2. Close circuit breaker first, then close isolator
 - ✗ 3. Close isolator first, then close circuit breaker
 - ✓ 4. Open circuit breaker first, then open isolator

Question ID : 4410092153713
Option 1 ID : 4410098476724
Option 2 ID : 4410098476725
Option 3 ID : 4410098476726
Option 4 ID : 4410098476727
Status : Answered
Chosen Option : 4

Q.69 A consumer has a connected load of 250 kW and a demand factor of 0.60. What is the maximum demand?

- Ans
- ✗ 1. 140 kW
 - ✗ 2. 180 kW
 - ✗ 3. 250 kW
 - ✓ 4. 150 kW

Question ID : 4410092153704
Option 1 ID : 4410098476688
Option 2 ID : 4410098476689
Option 3 ID : 4410098476690
Option 4 ID : 4410098476691
Status : Answered
Chosen Option : 2

Q.70 The maximum demand on a power station is 100 MW. If the annual load factor is 40%, what is the total energy generated in a year?

- Ans
- ✓ 1. 3504×10^5 kWh
 - ✗ 2. 2504×10^5 kWh
 - ✗ 3. 1752×10^5 kWh
 - ✗ 4. 7008×10^5 kWh

Question ID : 4410091180540
Option 1 ID : 4410094656288
Option 2 ID : 4410094656289
Option 3 ID : 4410094656290
Option 4 ID : 4410094656291
Status : Answered
Chosen Option : 2

Q.71 Which equipment is used to connect or disconnect a circuit only under no-load condition in a substation?

- Ans
- ✗ 1. Circuit breaker
 - ✓ 2. Isolator
 - ✗ 3. Current transformer
 - ✗ 4. Lightning arrester

Question ID : 4410092154904
Option 1 ID : 4410098481484
Option 2 ID : 4410098481485
Option 3 ID : 4410098481486
Option 4 ID : 4410098481487
Status : Answered
Chosen Option : 2

Q.72 During a transformer open-circuit test at rated voltage and frequency, the wattmeter reading represents:

- Ans
- ✓ 1. Core loss of the transformer
 - ✗ 2. Copper loss of the transformer windings
 - ✗ 3. Leakage reactance of the transformer
 - ✗ 4. Short-circuit current of the transformer

Question ID : 4410091745987
Option 1 ID : 4410096885487
Option 2 ID : 4410096885488
Option 3 ID : 4410096885489
Option 4 ID : 4410096885490
Status : Answered
Chosen Option : 1

Q.73 Suppose a manufacturer uses solid iron instead of laminated soft iron for the construction of pole shoe in a DC generator. What will be the consequence?

- Ans
- ✗ 1. Immediate insulation breakdown
 - ✗ 2. High risk of mechanical failure
 - ✗ 3. Noticeable reduction in magnetic flux
 - ✓ 4. Significant increase in eddy current losses

Question ID : 4410092152557
Option 1 ID : 4410098472116
Option 2 ID : 4410098472117
Option 3 ID : 4410098472118
Option 4 ID : 4410098472119
Status : Answered
Chosen Option : 4

Q.74 Which equation correctly represents the terminal voltage (V) in the EMF method of voltage regulation of synchronous generators? (E_0 represents the internally generated emf, I represents the armature current, R_a represents the armature resistance and X_s represents the synchronous reactance)

- Ans
- ✗ 1. $V = I(R_a + jX_s) - E_0$
 - ✓ 2. $V = E_0 - I(R_a + jX_s)$
 - ✗ 3. $V = E_0 + I(R_a + jX_s)$
 - ✗ 4. $V = E_0 - I(R_a)$

Question ID : 4410092152568
Option 1 ID : 4410098472160
Option 2 ID : 4410098472161
Option 3 ID : 4410098472162
Option 4 ID : 4410098472163
Status : Answered
Chosen Option : 3

Q.75 In the operation of a DC generator, what is the function of the commutator?

- Ans
- ✗ 1. To amplify the generated voltage
 - ✗ 2. To regulate magnetic field strength
 - ✗ 3. To stabilize the rotational speed
 - ✓ 4. To convert alternating voltage to direct voltage at the output

Question ID : 4410091962593
Option 1 ID : 4410097730767
Option 2 ID : 4410097730768
Option 3 ID : 4410097730769
Option 4 ID : 4410097730770
Status : Answered
Chosen Option : 1

Q.76 An electrical instrument will be damaged if the current exceeds 10 amp. What should be the current rating of the circuit breaker used for protection?

- Ans
- ✗ 1. 15 amp
 - ✗ 2. 20 amp
 - ✗ 3. 25 amp
 - ✓ 4. 10 amp

Question ID : 4410092152582
Option 1 ID : 4410098472216
Option 2 ID : 4410098472217
Option 3 ID : 4410098472218
Option 4 ID : 4410098472219
Status : Answered
Chosen Option : 4

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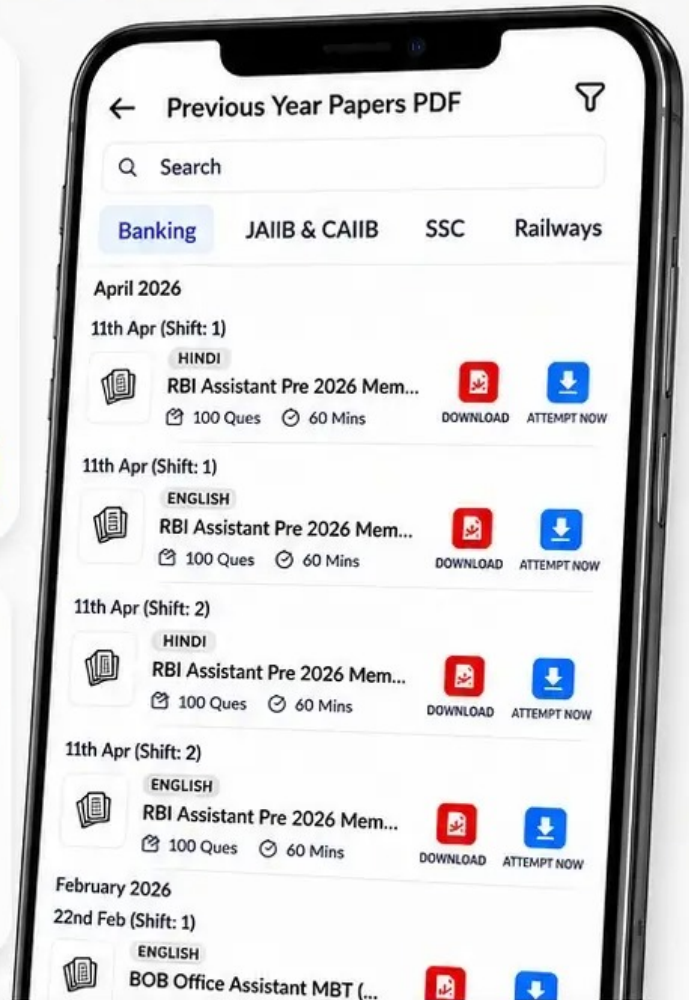
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Q.77 When installing a lightning arrester at the terminal of a power transformer connected to an overhead transmission line, what is the purpose of positioning the arrester as close as possible to the transformer bushing?

- Ans
- ☒ 1. Enhancing thermal dissipation of surge energy
 - ☒ 2. Improving system grounding effectiveness
 - ☒ 3. Increasing transmission line current-carrying capacity
 - ☒ 4. Minimizing voltage rise across transformer insulation

Question ID : 4410092153724
Option 1 ID : 4410098476768
Option 2 ID : 4410098476769
Option 3 ID : 4410098476770
Option 4 ID : 4410098476771
Status : Answered
Chosen Option : 1

Q.78 If insufficient curing time is allowed after grouting transmission accessories, what is the most likely consequence?

- Ans
- ☒ 1. Reduced mechanical strength of accessories
 - ☒ 2. Improved corrosion resistance of bolts
 - ☒ 3. Better alignment of overhead conductors
 - ☒ 4. Enhanced electrical conductivity of joints

Question ID : 4410092153718
Option 1 ID : 4410098476744
Option 2 ID : 4410098476745
Option 3 ID : 4410098476746
Option 4 ID : 4410098476747
Status : Answered
Chosen Option : 2

Q.79 Hysteresis synchronous motor is used for phono turn tables because it:

- Ans
- ☒ 1. is extremely quiet in operation and is free from mechanical and magnetic vibration
 - ☒ 2. has very high efficiency
 - ☒ 3. has no revolving magnetic flux
 - ☒ 4. has high power factor

Question ID : 441009918556
Option 1 ID : 4410093628225
Option 2 ID : 4410093628226
Option 3 ID : 4410093628227
Option 4 ID : 4410093628228
Status : Answered
Chosen Option : 1

Q.80 Which operating principle distinguishes a current differential protection relay from an overcurrent protection relay?

- Ans
- ☒ 1. It operates using the magnitude of current measured at one location.
 - ☒ 2. It operates using the voltage difference measured at two buses.
 - ☒ 3. It operates using the vector sum of currents entering and leaving a protected zone.
 - ☒ 4. It operates using the phase angle of voltage measured at one location.

Question ID : 4410092153698
Option 1 ID : 4410098476664
Option 2 ID : 4410098476665
Option 3 ID : 4410098476666
Option 4 ID : 4410098476667
Status : Answered
Chosen Option : 3