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Recruitment of Management Trainees through Computer Based Test (CBT-26)

Participant ID	
Participant Name	
Test Center Name	
Test Date	24/08/2026
Test Time	9:00 AM - 12:00 PM
Subject	Electrical

Section : **Part 1 General Knowledge Awareness**

Q.1 **Kamarajar Port, India's only major port set up as a public company, was earlier known by which name?**

Ans
- ✔ A. Ennore Port
- ✘ B. Cochin Port
- ✘ C. Paradip Port
- ✘ D. Mundra Port

Question ID : **4410092215547**
Option 1 ID : **4410098718326**
Option 2 ID : **4410098718329**
Option 3 ID : **4410098718327**
Option 4 ID : **4410098718328**
Status : **Answered**
Chosen Option : **C**

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Q.2 **Under the EASE 8.0 reform agenda for Public Sector Banks in FY 2025–26, which of the following sets correctly represents the four R.I.S.E. themes?**

Ans
✔ A. Risk & Resilience, Innovation, Socio-economic Impact and Excellence
✘ B. Restructuring & Relief, Insurance, Subsidy Execution and Equity
✘ C. Revenue & Recovery, Inclusion, Savings Expansion and Efficiency
✘ D. Regulation & Ratings, Investment, Security Enhancement and Exports

Question ID : **4410092215759**
Option 1 ID : **4410098719177**
Option 2 ID : **4410098719176**
Option 3 ID : **4410098719174**
Option 4 ID : **4410098719175**
Status : **Answered**
Chosen Option : **C**

Q.3 **What was the theme of World Health Day 2026?**

Ans
✔ A. Together for health. Stand with science
✘ B. Health for all through stronger hospitals
✘ C. Better medicines for a safer world
✘ D. Universal care for every community

Question ID : **4410092215757**
Option 1 ID : **4410098719166**
Option 2 ID : **4410098719167**
Option 3 ID : **4410098719169**
Option 4 ID : **4410098719168**
Status : **Answered**
Chosen Option : **A**

Q.4 **Mehrunnisa received which title after marrying Emperor Jahangir in 1611?**

Ans
✘ A. Mumtaz Mahal
✘ B. Roshanara Begum
✘ C. Jahanara Begum
✔ D. Nur Jahan

Question ID : **4410092215630**
Option 1 ID : **4410098718659**
Option 2 ID : **4410098718661**
Option 3 ID : **4410098718660**
Option 4 ID : **4410098718658**
Status : **Answered**
Chosen Option : **C**

Q.5 **In 2015, the Planning Commission of India was replaced by which institution as the government's premier policy think tank?**

Ans
- ✗ A. Fiscal Policy Board
- ✗ B. National Development Council
- ✗ C. Finance Commission
- ✓ D. NITI Aayog

Question ID : **4410092215967**
Option 1 ID : **4410098720005**
Option 2 ID : **4410098720004**
Option 3 ID : **4410098720002**
Option 4 ID : **4410098720003**
Status : **Answered**
Chosen Option : **D**

Q.6 **A hospital's IT administrator must ensure that all departments can run their required applications, like medical record software, without interference. Which action best demonstrates an understanding of the difference between system software and application software?**

Ans
- ✗ A. Installing new medical record applications
- ✗ B. Allowing users to install any medical software they want
- ✓ C. Configuring the operating system to allocate resources efficiently so all applications function smoothly
- ✗ D. Updating antivirus software on all computers

Question ID : **4410091810466**
Option 1 ID : **4410097137910**
Option 2 ID : **4410097137909**
Option 3 ID : **4410097137911**
Option 4 ID : **4410097137912**
Status : **Answered**
Chosen Option : **C**

Q.7 **The World Trade Organization (WTO) came into existence following the conclusion of which major round of multilateral trade negotiations?**

Ans
- ✗ A. The Doha Round
- ✓ B. The Uruguay Round
- ✗ C. The Kennedy Round
- ✗ D. The Tokyo Round

Question ID : **4410092216050**
Option 1 ID : **4410098720334**
Option 2 ID : **4410098720337**
Option 3 ID : **4410098720336**
Option 4 ID : **4410098720335**
Status : **Answered**
Chosen Option : **C**

Q.8 **Which type of soil forms the entire Northern Plains of India, has been deposited by the Indus, Ganga, and Brahmaputra river systems, and generally contains adequate proportions of potash, phosphoric acid, and lime?**

Ans
- ✗ A. Laterite soil
- ✓ B. Alluvial soil
- ✗ C. Black soil
- ✗ D. Red soil

Question ID : **4410092215737**
Option 1 ID : **4410098719086**
Option 2 ID : **4410098719088**
Option 3 ID : **4410098719089**
Option 4 ID : **4410098719087**
Status : **Answered**
Chosen Option : **B**

Q.9 **The 74th Constitutional Amendment Act of India, 1992, primarily deals with which of the following?**

Ans
- ✗ A. Reservation in Higher Education
- ✗ B. Panchayati Raj Institutions
- ✗ C. Delimitation of Parliamentary Constituencies
- ✓ D. Urban Local Bodies

Question ID : **4410092215953**
Option 1 ID : **4410098719948**
Option 2 ID : **4410098719946**
Option 3 ID : **4410098719949**
Option 4 ID : **4410098719947**
Status : **Answered**
Chosen Option : **C**

Q.10 **The Neela Chakra on top of the Lord Jagannath Temple in Puri, Odisha is made of eight metals; which of the following metals is NOT included in the eight metals?**

Ans
- ✗ A. Silver
- ✗ B. Gold
- ✗ C. Copper
- ✓ D. Platinum

Question ID : **4410091576320**
Option 1 ID : **4410096226053**
Option 2 ID : **4410096226050**
Option 3 ID : **4410096226051**
Option 4 ID : **4410096226052**
Status : **Answered**
Chosen Option : **D**

Q.11 In which year was the 'Make in India' initiative launched?

Ans
✗ A. 2012
✗ B. 2018
✓ C. 2014
✗ D. 2016

Question ID : **4410092216045**
Option 1 ID : **4410098720314**
Option 2 ID : **4410098720316**
Option 3 ID : **4410098720317**
Option 4 ID : **4410098720315**
Status : **Answered**
Chosen Option : **C**

Q.12 The sale of government equity in Public Sector Undertakings to private or public investors, undertaken as part of the 1991 reforms, is referred to as:

Ans
✗ A. Deregulation
✗ B. Nationalisation
✗ C. Devaluation
✓ D. Disinvestment

Question ID : **4410092215968**
Option 1 ID : **4410098720008**
Option 2 ID : **4410098720006**
Option 3 ID : **4410098720009**
Option 4 ID : **4410098720007**
Status : **Answered**
Chosen Option : **A**

Q.13 At the Khelo India Winter Games 2026, which Olympic sport made its debut in the Ladakh leg of the event?

Ans
✗ A. Alpine skiing
✓ B. Figure skating
✗ C. Snowboarding
✗ D. Ice hockey

Question ID : **4410092215766**
Option 1 ID : **4410098719205**
Option 2 ID : **4410098719202**
Option 3 ID : **4410098719204**
Option 4 ID : **4410098719203**
Status : **Answered**
Chosen Option : **D**

Q.14 **Under which Article of the Indian Constitution can the President proclaim a National Emergency on grounds of war or armed rebellion?**

Ans
- ✗ A. Article 356
- ✓ B. Article 352
- ✗ C. Article 368
- ✗ D. Article 360

Question ID : **4410092215566**
Option 1 ID : **4410098718404**
Option 2 ID : **4410098718405**
Option 3 ID : **4410098718402**
Option 4 ID : **4410098718403**
Status : **Answered**
Chosen Option : **A**

Q.15 **In Rachana Gangu v. Union of India, decided in March 2026, the Supreme Court directed the Union Government to formulate which policy?**

Ans
- ✗ A. National public health audit policy for all private vaccination centres
- ✓ B. No-fault compensation policy for serious COVID-19 vaccine adverse events
- ✗ C. Uniform medical insurance policy for all government vaccination beneficiaries
- ✗ D. Central negligence liability policy against all vaccine manufacturers

Question ID : **4410092215768**
Option 1 ID : **4410098719212**
Option 2 ID : **4410098719210**
Option 3 ID : **4410098719211**
Option 4 ID : **4410098719213**
Status : **Answered**
Chosen Option : **B**

Q.16 **According to World Weather Attribution's 2026 analysis, what scientific issue became a major concern during the FIFA World Cup 2026?**

Ans
- ✗ A. Earthquake risk in host cities
- ✗ B. Ocean acidification near stadiums
- ✓ C. Extreme heat linked to climate change
- ✗ D. Volcanic ash disrupting air routes

Question ID : **4410092215753**
Option 1 ID : **4410098719150**
Option 2 ID : **4410098719153**
Option 3 ID : **4410098719151**
Option 4 ID : **4410098719152**
Status : **Answered**
Chosen Option : **C**

Q.17 **Bal Gangadhar Tilak, who introduced a public festival in 1893 to promote nationalist consciousness and public participation in Maharashtra, is associated with which festival?**

Ans

✔ A. Ganapati Festival

✘ B. Onam

✘ C. Durga Puja

✘ D. Pongal

Question ID : **4410092215637**
Option 1 ID : **4410098718687**
Option 2 ID : **4410098718689**
Option 3 ID : **4410098718686**
Option 4 ID : **4410098718688**
Status : **Answered**
Chosen Option : **B**

Q.18 **Under the Union Budget 2026–27, the Government proposed a phased outlay of ₹980 crore over three years for which social-sector objective?**

Ans

✘ A. Upgrading sports hostels for rural youth training

✘ B. Digitising anganwadi nutrition delivery systems

✔ C. Expanding allied and healthcare professionals' education

✘ D. Establishing residential schools in border districts

Question ID : **4410092215773**
Option 1 ID : **4410098719230**
Option 2 ID : **4410098719231**
Option 3 ID : **4410098719233**
Option 4 ID : **4410098719232**
Status : **Answered**
Chosen Option : **B**

Q.19 **Johads are primarily used for which purpose in the Great Indian Desert?**

Ans

✘ A. Navigation

✘ B. Salt extraction

✘ C. Hydroelectric power generation

✔ D. Rainwater harvesting

Question ID : **4410092215736**
Option 1 ID : **4410098719083**
Option 2 ID : **4410098719082**
Option 3 ID : **4410098719084**
Option 4 ID : **4410098719085**
Status : **Answered**
Chosen Option : **B**

Q.20 **Which pair of subjects falls under the Concurrent List of the Seventh Schedule, allowing both Parliament and State Legislatures to legislate on it?**

Ans
- ✔ A. Education and Forests
- ✘ B. Foreign Affairs and Defence
- ✘ C. Railways and Ports Sector
- ✘ D. Currency and Coinage

Question ID : **4410092339446**
Option 1 ID : **4410099199880**
Option 2 ID : **4410099199882**
Option 3 ID : **4410099199883**
Option 4 ID : **4410099199881**
Status : **Answered**
Chosen Option : **B**

Q.21 **Who discovered X-rays and reported this discovery in December 1895?**

Ans
- ✔ A. Wilhelm Conrad Röntgen
- ✘ B. JJ Thomson
- ✘ C. Ernest Rutherford
- ✘ D. Marie Curie

Question ID : **4410092216506**
Option 1 ID : **4410098722159**
Option 2 ID : **4410098722160**
Option 3 ID : **4410098722161**
Option 4 ID : **4410098722158**
Status : **Answered**
Chosen Option : **B**

Q.22 **Which type of power plant generates electricity from the kinetic energy of falling or flowing water?**

Ans
- ✘ A. Geothermal Plant
- ✘ B. Thermal Power Plant
- ✘ C. Nuclear Power Plant
- ✔ D. Hydroelectric Plant

Question ID : **4410092215543**
Option 1 ID : **4410098718311**
Option 2 ID : **4410098718312**
Option 3 ID : **4410098718313**
Option 4 ID : **4410098718310**
Status : **Answered**
Chosen Option : **D**

Q.23 **Which combination of security tools would best protect confidential files from both external network attacks and unauthorized local access?**

Ans
- ✗ A. Antivirus and password manager
- ✓ B. Firewall and encryption tool
- ✗ C. Antivirus and encryption tool
- ✗ D. Firewall and password manager

Question ID : **4410091838583**
Option 1 ID : **4410097247891**
Option 2 ID : **4410097247892**
Option 3 ID : **4410097247893**
Option 4 ID : **4410097247890**
Status : **Answered**
Chosen Option : **B**

Q.24 **The Indian National Congress, founded in December 1885, was established under the guidance of which retired British civil servant, who also served as its first General Secretary?**

Ans
- ✗ A. William Wedderburn
- ✓ B. Allan Octavian Hume
- ✗ C. Henry Cotton
- ✗ D. George Yule

Question ID : **4410092215638**
Option 1 ID : **4410098718691**
Option 2 ID : **4410098718690**
Option 3 ID : **4410098718692**
Option 4 ID : **4410098718693**
Status : **Not Answered**
Chosen Option : **--**

Q.25 **In which year was the "Ek Ped Maa Ke Naam" campaign launched by Prime Minister Narendra Modi?**

Ans
- ✗ A. 2023
- ✗ B. 2025
- ✓ C. 2024
- ✗ D. 2022

Question ID : **4410092215624**
Option 1 ID : **4410098718635**
Option 2 ID : **4410098718637**
Option 3 ID : **4410098718636**
Option 4 ID : **4410098718634**
Status : **Not Answered**
Chosen Option : **--**

Section : **Part 2 Numerical Ability**

Q.1 A student has an average score of 75 in 4 subjects. After the score of a 5th subject is included, the student's average score becomes 78. What score did the student obtain in the 5th subject?

Ans
✗ A. 95
✓ B. 90
✗ C. 84
✗ D. 78

Question ID : **4410092200565**
Option 1 ID : **4410098659434**
Option 2 ID : **4410098659432**
Option 3 ID : **4410098659435**
Option 4 ID : **4410098659433**
Status : **Answered**
Chosen Option : **B**

Q.2 A chef prepares a premium hemispherical chocolate dessert that is packed with exactly two-thirds of liquid caramel sauce. If the diameter of each dessert is 42 mm and the price of one cubic mm of caramel sauce is 50 paisa, then the total cost of the caramel sauce used to make 50 of these desserts is:

Ans
✓ A. ₹3,23,400
✗ B. ₹3,45,680
✗ C. ₹3,57,600
✗ D. ₹3,38,000

Question ID : **4410092200615**
Option 1 ID : **4410098659635**
Option 2 ID : **4410098659633**
Option 3 ID : **4410098659634**
Option 4 ID : **4410098659632**
Status : **Answered**
Chosen Option : **A**

Q.3 An apparel manufacturing unit operates identical eco-friendly looms to fulfill global export orders. If 12 looms running simultaneously can weave a total of 360 metres of fabric in 6 days, how many metres of fabric can 15 looms weave in 8 days?

Ans
✓ A. 600
✗ B. 550
✗ C. 500
✗ D. 650

Question ID : **4410092200592**
Option 1 ID : **4410098659542**
Option 2 ID : **4410098659541**
Option 3 ID : **4410098659540**
Option 4 ID : **4410098659543**
Status : **Answered**
Chosen Option : **A**

Q.4 **The difference between the present ages of Lata and Smita is 29 years. Five years ago, the sum of their ages was 39 years. If Lata is older than Smita, what is Smita's present age (in years)?**

Ans

✔ A. 10

✘ B. 7

✘ C. 1

✘ D. 11

Question ID : **4410091220104**
Option 1 ID : **4410094813839**
Option 2 ID : **4410094813842**
Option 3 ID : **4410094813840**
Option 4 ID : **4410094813841**
Status : **Answered**
Chosen Option : **A**

Q.5 **Let x be a positive integer. If the Highest Common Factor of the fractions $\frac{x}{2}$ and $\frac{6}{4}$ is exactly equal to their Least Common Multiple, then the value of x is:**

Ans

✘ A. 2

✔ B. 3

✘ C. 4

✘ D. 1

Question ID : **4410092200577**
Option 1 ID : **4410098659481**
Option 2 ID : **4410098659482**
Option 3 ID : **4410098659483**
Option 4 ID : **4410098659480**
Status : **Answered**
Chosen Option : **B**

Q.6 In a custom board game, two players, Kevin and Maya, roll their respective biased dice simultaneously in sequential rounds until a winner is decided. Kevin rolls a "Star" with a probability of 1/3, while Maya rolls a "Star" with a probability of 2/7, independent of each other. A player wins the game immediately in any given round if their die lands on a "Star" while the opponent's die does not. Conversely, if both players roll a "Star" or if both fail to do so, the round is declared a draw and they proceed to an identical next round. The probability that Maya ultimately wins the game is:

Ans
- ✗ A. $\frac{3}{8}$
- ✓ B. $\frac{4}{9}$
- ✗ C. $\frac{1}{2}$
- ✗ D. $\frac{2}{7}$

Question ID : **4410092200606**
Option 1 ID : **4410098659596**
Option 2 ID : **4410098659597**
Option 3 ID : **4410098659599**
Option 4 ID : **4410098659598**
Status : **Marked For Review**
Chosen Option : **B**

Q.7 If $X \div 9 = \frac{1}{1.5} \times \left\{ \frac{5}{6} \div 1\frac{1}{4} \text{ of } \frac{2}{3} \right\} \div 3$, then the value of X is:

Ans
- ✗ A. 3
- ✗ B. 1
- ✓ C. 2
- ✗ D. 4

Question ID : **4410092200574**
Option 1 ID : **4410098659470**
Option 2 ID : **4410098659468**
Option 3 ID : **4410098659469**
Option 4 ID : **4410098659471**
Status : **Answered**
Chosen Option : **C**

Q.8 A plant produces Smartphones and Tablets in the initial ratio of 3 : 2. To meet holiday demand, the plant increases the production of Smartphones by 40%. By what percentage must the production of Tablets be increased so that the new production ratio of Smartphones to Tablets becomes exactly 7 : 4?

Ans
✗ A. 25%
✗ B. 18%
✓ C. 20%
✗ D. 15%

Question ID : **4410092200583**
Option 1 ID : **4410098659507**
Option 2 ID : **4410098659505**
Option 3 ID : **4410098659506**
Option 4 ID : **4410098659504**
Status : **Answered**
Chosen Option : **C**

Q.9 A solid toy is shaped as a right circular cylinder with a hemisphere on one base and a cone on the other. The cylindrical part has a diameter of 12 cm and its height is 1.5 times of radius of base. The hemispherical and conical parts share the same radius as the cylinder. If the height of the conical part is K cm and the total cost of making this toy at the rate of ₹21 per cubic cm is ₹37,224, then the value of K is: $\left(\text{Use } \pi = \frac{22}{7}\right)$

Ans
✗ A. 9
✓ B. 8
✗ C. 6
✗ D. 7

Question ID : **4410092200609**
Option 1 ID : **4410098659611**
Option 2 ID : **4410098659610**
Option 3 ID : **4410098659608**
Option 4 ID : **4410098659609**
Status : **Marked For Review**
Chosen Option : **A**

Q.10 A person travelled 10 km, 15 km and x km, in 15, 12 and 13 minutes, respectively. If their average speed is 67.5 kmph, then find the value of x.

Ans
✗ A. 22
✗ B. 21.5
✗ C. 18.7
✓ D. 20

Question ID : **441009461836**
Option 1 ID : **4410091805772**
Option 2 ID : **4410091805769**
Option 3 ID : **4410091805771**
Option 4 ID : **4410091805770**
Status : **Answered**
Chosen Option : **D**

Q.11 The cost of a washing machine is 25% less than the cost of a television. If the cost of the washing machine increases by 80% and that of the TV decreases by 16%, then what is the percentage change in the total cost of 6 washing machines and 9 televisions?

Ans
✗ A. Increase by 10%
✓ B. Increase by 16%
✗ C. Decrease by 9%
✗ D. Decrease by 14%

Question ID : **441009560864**
Option 1 ID : **4410092198725**
Option 2 ID : **4410092198723**
Option 3 ID : **4410092198726**
Option 4 ID : **4410092198724**
Status : **Answered**
Chosen Option : **B**

Q.12 A sum, when invested at 20% simple interest per annum, amounts to ₹8,160 after 4 years. What is the simple interest (in ₹, rounded off to two decimal places) on the same sum at the same rate in 2 years?

Ans
✓ A. 1,813.33
✗ B. 906.665
✗ C. 7,253.32
✗ D. 3,626.66

Question ID : **441009568331**
Option 1 ID : **4410092228444**
Option 2 ID : **4410092228446**
Option 3 ID : **4410092228447**
Option 4 ID : **4410092228445**
Status : **Answered**
Chosen Option : **A**

Q.13 In a division sum, the divisor is 17 times the quotient and 8 times the remainder. If the remainder is 51, what is the dividend?

Ans
✗ A. 9840
✗ B. 9846
✗ C. 9842
✓ D. 9843

Question ID : **441009559909**
Option 1 ID : **4410092194905**
Option 2 ID : **4410092194906**
Option 3 ID : **4410092194904**
Option 4 ID : **4410092194903**
Status : **Answered**
Chosen Option : **D**

Q.14 **A wholesale trader purchases a certain number of identical gadgets. He sells 40% of the gadgets at a profit of 25%, and 50% of the remaining gadgets at a loss of 10%. If he sells the final left-over gadgets at his exact cost price, then the overall net profit percentage on the entire transaction is:**

Ans
- ✗ A. 12%
- ✓ B. 7%
- ✗ C. 10%
- ✗ D. 5%

Question ID : **4410092200586**
Option 1 ID : **4410098659518**
Option 2 ID : **4410098659516**
Option 3 ID : **4410098659517**
Option 4 ID : **4410098659519**
Status : **Answered**
Chosen Option : **B**

Q.15 **The total time (T, in hours) required to transport a heavy cargo shipment across a fixed shipping lane varies inversely as the square root of the engine horsepower H of the cargo ship. When a ship with an engine capacity of 100 horsepower is used, the transit takes exactly 24 hours. If the logistics company switches to a more powerful freight ship equipped with a 400 horsepower engine, how many hours will the same transit take?**

Ans
- ✗ A. 18
- ✓ B. 12
- ✗ C. 20
- ✗ D. 16

Question ID : **4410092200598**
Option 1 ID : **4410098659565**
Option 2 ID : **4410098659564**
Option 3 ID : **4410098659566**
Option 4 ID : **4410098659567**
Status : **Answered**
Chosen Option : **B**

Q.16 **A solid metallic sphere of diameter 32 cm is melted and drawn into a wire of uniform cross-section. If the radius of the wire is 8 cm, then find the length (in cm) of the wire.**1456

Ans

✗ A. $72\frac{1}{2}$

✓ B. $85\frac{1}{3}$

✗ C. $75\frac{1}{3}$

✗ D. $80\frac{1}{2}$

Question ID : **441009601147**
Option 1 ID : **4410092359705**
Option 2 ID : **4410092359708**
Option 3 ID : **4410092359706**
Option 4 ID : **4410092359707**
Status : **Answered**
Chosen Option : **B**

Q.17 **A logistics company analyzes delivery times (in hours) for five remote locations: 12.4, 14.1, 13.7, 19.2, and 16.6. A manager mistakenly computes the mean deviation from the highest value rather than from the mean. Which of the following best describes the impact of this error on the interpretation of variability in delivery times?**

Ans

✓ A. It artificially inflates the metric, falsely implying that delivery times are much more volatile and inconsistent than they actually are.

✗ B. It minimizes the metric, falsely implying that the deliveries are highly consistent and tightly clustered around a central value.

✗ C. The metric simply shifts by a flat scalar value equal to the range, keeping the internal proportions intact.

✗ D. It has no impact on the interpretation of variability because absolute distances remain proportionally constant.

Question ID : **4410092200601**
Option 1 ID : **4410098659576**
Option 2 ID : **4410098659577**
Option 3 ID : **4410098659579**
Option 4 ID : **4410098659578**
Status : **Answered**
Chosen Option : **A**

Q.18 As part of a final selection trial, three candidates—A, B, and C—are assigned a technical task. Working independently, Candidate A can complete the task in 24 days, Candidate B in 32 days, and Candidate C in 60 days. They begin working on the task simultaneously. However, Candidate A leaves the trial after 6 days, and Candidate B leaves after working for a total of 8 days. Candidate C continues alone to finish the assignment. How many additional days are required by Candidate C to complete the remaining work?

Ans
- ✗ A. 20.5 days
- ✗ B. 15 days
- ✗ C. 17.5 days
- ✓ D. 22 days

Question ID : **4410092200602**
Option 1 ID : **4410098659583**
Option 2 ID : **4410098659580**
Option 3 ID : **4410098659582**
Option 4 ID : **4410098659581**
Status : **Answered**
Chosen Option : **D**

Q.19 Four venture capitalists evaluate their quarterly portfolio performance based on the ratio of returns received to their initial capital investments. The recorded performance ratios are as follows:
Investor A - 11:80
Investor B - 7 : 50
Investor C - 13 : 90
Investor D - 9 : 65
Which investor received the lowest return percentage on their investment?

Ans
- ✗ A. Investor D
- ✗ B. Investor B
- ✗ C. Investor C
- ✓ D. Investor A

Question ID : **4410092200595**
Option 1 ID : **4410098659555**
Option 2 ID : **4410098659553**
Option 3 ID : **4410098659554**
Option 4 ID : **4410098659552**
Status : **Answered**
Chosen Option : **D**

Q.20 If the compound interest earned on a sum in 2 years at a rate of 10 percent per annum is ₹210, then the principal amount (in ₹) is:

Ans
✗ A. 1,150
✗ B. 1,200
✗ C. 950
✓ D. 1,000

Question ID : **4410092200571**
Option 1 ID : **4410098659458**
Option 2 ID : **4410098659457**
Option 3 ID : **4410098659456**
Option 4 ID : **4410098659459**
Status : **Answered**
Chosen Option : **D**

Q.21 A wholesaler purchases 500 kg of flour but actually receives 10% more quantity because of a faulty weighing machine used by the supplier. He then sells the flour at 5% above cost price. During the sale, his weighing machine delivers 8% less quantity than the indicated weight. What is his overall profit percentage (rounded off to one decimal place)?

Ans
✗ A. 18.5%
✗ B. 12.5%
✗ C. 22.5%
✓ D. 25.5%

Question ID : **4410092200589**
Option 1 ID : **4410098659529**
Option 2 ID : **4410098659528**
Option 3 ID : **4410098659530**
Option 4 ID : **4410098659531**
Status : **Answered**
Chosen Option : **D**

Q.22 A cyclist starts from point P and rides towards point Q, which is 120 km away. For the first 40 km, the cyclist travels at 12 km/h. For the next 50 km, the cyclist travels at 10 km/h. For the remaining distance, the cyclist increases speed by 20% over the previous speed. What is the average speed (in km/h) of the cyclist for the entire journey? (Rounded off to two decimal places)

Ans
✗ A. 10.80
✗ B. 11.80
✗ C. 11.55
✓ D. 11.08

Question ID : **4410091580886**
Option 1 ID : **4410096244907**
Option 2 ID : **4410096244910**
Option 3 ID : **4410096244909**
Option 4 ID : **4410096244908**
Status : **Answered**
Chosen Option : **C**

Q.23 Simplify: $\sqrt[3]{99^3 - 88^3 - 11^3}$

Ans
✗ A. 54
✓ B. 66
✗ C. 99
✗ D. 78

Question ID : **4410092200580**
Option 1 ID : **4410098659492**
Option 2 ID : **4410098659493**
Option 3 ID : **4410098659495**
Option 4 ID : **4410098659494**
Status : **Answered**
Chosen Option : **B**

Q.24 **An academic admissions panel calculates a candidate's final selection score as the weighted average of four components: Mathematics, Physics, Chemistry, and a Personal Interview. Chemistry carries a weight of 40% of the total score. The remaining 60% is distributed among the other three components such that the weight assigned to Physics is twice the weight assigned to the Personal Interview, and the weight assigned to Mathematics is equal to the combined weights of Physics and the Personal Interview. If a candidate scores 80 in Mathematics, 70 in Physics, 85 in Chemistry, and 90 in the Personal Interview, what is the candidate's final weighted average score?**

Ans
✗ A. 78
✗ B. 87
✓ C. 81
✗ D. 75

Question ID : **4410092200568**
Option 1 ID : **4410098659445**
Option 2 ID : **4410098659446**
Option 3 ID : **4410098659444**
Option 4 ID : **4410098659447**
Status : **Answered**
Chosen Option : **C**

Q.25 **A concrete flood barrier is in the shape of a right prism. Its cross-section is an isosceles trapezoid with parallel sides of lengths 10 m and 22 m, and the two equal non-parallel sides each measure 10 m. The prism is 50 m long. Find the volume (in m^3) of the prism.**

Ans
✗ A. 5800
✗ B. 6800
✗ C. 6200
✓ D. 6400

Question ID : **4410092200612**
Option 1 ID : **4410098659620**
Option 2 ID : **4410098659623**
Option 3 ID : **4410098659621**
Option 4 ID : **4410098659622**
Status : **Answered**
Chosen Option : **D**

Section : **Part 3 Reasoning**

Q.1 **Below are given two sets of numbers. In each set of numbers, a certain mathematical operation on the first number results in the second number. Similarly, a certain mathematical operation on the second number results in the third number and so on. Which of the given options follows the same set of operations as in the question?**
(NOTE: A two/three digit number cannot be broken into individual digits for operations. E.g. if 37 is followed by 10, the operation cannot be 3+7 as a two-digit number cannot be broken into individual digits.)
63-21-84-77
69-23-92-85

Ans
✗ A. 75-25-105-93
✗ B. 75-25-100-97
✓ C. 75-25-100-93
✗ D. 75-35-100-93

Question ID : **4410092226454**
Option 1 ID : **4410098761143**
Option 2 ID : **4410098761142**
Option 3 ID : **4410098761141**
Option 4 ID : **4410098761144**
Status : **Answered**
Chosen Option : **C**

Q.2 **Seven people, A, B, C, D, E, F and G, are sitting in a row, facing north. Only five people sit between G and B. C sits fourth from the right end. E sits to the right of D but to left of C. F sits second to the left of G. How many people sit between A and D ?**

Ans
✗ A. One
✓ B. Three
✗ C. Two
✗ D. Four

Question ID : **44100973032**
Option 1 ID : **441009290450**
Option 2 ID : **441009290448**
Option 3 ID : **441009290451**
Option 4 ID : **441009290449**
Status : **Answered**
Chosen Option : **B**

Q.3 What will come in the place of '?' in the following equation, if '+' and '-' are interchanged and 'x' and '÷' are interchanged?
92 - 106 + 21 ÷ 3 x 3 =?

Ans
✗ A. 178
✗ B. 175
✗ C. 176
✓ D. 177

Question ID : **441009384711**
Option 1 ID : **4410091504497**
Option 2 ID : **4410091504494**
Option 3 ID : **4410091504495**
Option 4 ID : **4410091504496**
Status : **Answered**
Chosen Option : **D**

Q.4 C, H, Y, K and L have different heights. Only H is taller than L. Y is taller than K. Only two people have heights between C and H.
How many people have heights between K and L?

Ans
✗ A. One
✓ B. Two
✗ C. Four
✗ D. Three

Question ID : **4410091657285**
Option 1 ID : **4410096544051**
Option 2 ID : **4410096544052**
Option 3 ID : **4410096544054**
Option 4 ID : **4410096544053**
Status : **Answered**
Chosen Option : **B**

Q.5 In a certain code,
'notebook marker folder' is coded as 'qx bv lt',
'folder envelope document' is coded as 'lt mp ry',
'document notebook register' is coded as 'mp qx hc'.
(All the codes are two-letter codes only.)
Which word is coded as ry?

Ans
✗ A. marker
✗ B. folder
✗ C. document
✓ D. envelope

Question ID : **4410092226442**
Option 1 ID : **4410098761096**
Option 2 ID : **4410098761095**
Option 3 ID : **4410098761094**
Option 4 ID : **4410098761093**
Status : **Answered**
Chosen Option : **D**

Q.6 TSFX is related to UQGV in a certain way based on the English alphabetical order. In the same way, EKWL is related to FIXJ. To which of the following is YXIR related, following the same logic?1958

Ans
✔ A. ZVJP
✘ B. XVKQ
✘ C. XWJO
✘ D. ZWJO

Question ID : **441009805369**
Option 1 ID : **4410093175600**
Option 2 ID : **4410093175602**
Option 3 ID : **4410093175601**
Option 4 ID : **4410093175599**
Status : **Answered**
Chosen Option : **A**

Q.7 What should come in place of '?' in the given series?
78 65 52 39 26 ?

Ans
✘ A. 11
✘ B. 10
✘ C. 12
✔ D. 13

Question ID : **441009370802**
Option 1 ID : **4410091449106**
Option 2 ID : **4410091449105**
Option 3 ID : **4410091449107**
Option 4 ID : **4410091449108**
Status : **Answered**
Chosen Option : **D**

Q.8 Adit starts from Point A and drives 5 km towards South. He then takes a left turn, drives 7 km, turns left and drives 11 km. He then takes a left turn and drives 12 km. He takes a final left turn, drives 6 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again?
(All turns are 90 degree turns only unless specified.)

Ans
✘ A. 6 km to the east
✘ B. 5 km to the west
✘ C. 6 km to the west
✔ D. 5 km to the east

Question ID : **441009231936**
Option 1 ID : **441009906201**
Option 2 ID : **441009906200**
Option 3 ID : **441009906202**
Option 4 ID : **441009906199**
Status : **Answered**
Chosen Option : **B**

Q.9 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

YXZ UTV QPR MLN ?

Ans
- ✔ A. IHJ
- ✘ B. IHG
- ✘ C. HIJ
- ✘ D. HIG

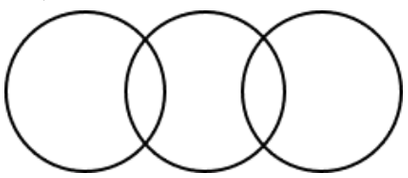
Question ID : **441009732385**
Option 1 ID : **4410092883295**
Option 2 ID : **4410092883292**
Option 3 ID : **4410092883293**
Option 4 ID : **4410092883294**
Status : **Answered**
Chosen Option : **A**

Q.10 Select the Venn diagram that best illustrates the relationship between the following classes.

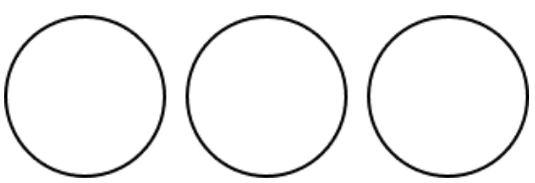
Steel, Chair, Table

Ans

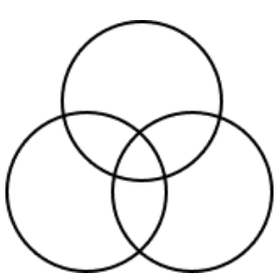
✗ A.



✓ B.



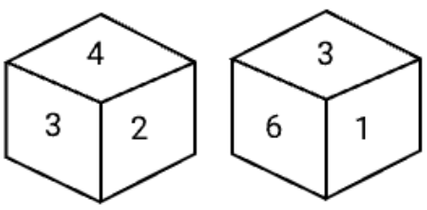
✗ C.



✗ D.

Question ID : **4410092226450**
Option 1 ID : **4410098761125**
Option 2 ID : **4410098761126**
Option 3 ID : **4410098761128**
Option 4 ID : **4410098761127**
Status : **Answered**
Chosen Option : **A**

Q.11 Six numbers, 1, 2, 3, 4, 5 and 6, are written on different faces of a dice. Two different positions of the same dice are given below. Which is the number on the face opposite the face containing 1?



Ans
✗ A. 3
✗ B. 2
✓ C. 4
✗ D. 6

Question ID : **4410092228079**
Option 1 ID : **4410098766632**
Option 2 ID : **4410098766635**
Option 3 ID : **4410098766633**
Option 4 ID : **4410098766634**
Status : **Answered**
Chosen Option : **C**

Q.12 Anita is the mother of Rajesh. Rajesh is the brother of Suresh. Suresh is the father of Neha. Neha is the wife of Mohan. How is Anita related to Mohan?

Ans
✗ A. Wife's father's sister
✗ B. Wife's mother's mother
✗ C. Wife's mother's sister
✓ D. Wife's father's mother

Question ID : **4410092226438**
Option 1 ID : **4410098761078**
Option 2 ID : **4410098761079**
Option 3 ID : **4410098761080**
Option 4 ID : **4410098761077**
Status : **Answered**
Chosen Option : **D**

Q.13 Refer to the given number and symbol series and answer the question that follows. Counting to be done from left to right only. All numbers are single-digit numbers.

(Left) 1 * % 4 7 @ 2 $ 5 & 8 Ω 6 # 3 * £ 9 (Right)

How many such symbols are there, each of which is immediately preceded by a number and also immediately followed by a number?

Ans
✔ A. More than two
✘ B. One
✘ C. Two
✘ D. None

Question ID : **441009807000**
Option 1 ID : **4410093182126**
Option 2 ID : **4410093182124**
Option 3 ID : **4410093182125**
Option 4 ID : **4410093182123**
Status : **Answered**
Chosen Option : **A**

Q.14 Given below is a statement followed by two possible reasons numbered I and II. Read the statement carefully and decide which of the two explains the event/observation/information given in the statement.
Statement: Farming, as we all well know, is a uniquely challenging profession. For millennia, farmers have had to find creative solutions to a variety of ecological challenges. Because of this, they've become incredibly adaptable individuals over the years.
Reasons:
I. Famers are using new scientific techniques of farming.
II. Farmers are using water harvesting as a creative technique to face ecological challenges

Ans
✘ A. Only II is a possible reason.
✔ B. Both I and II are possible reasons.
✘ C. Only I is a possible reason.
✘ D. Neither I nor II is a possible reason.

Question ID : **441009477875**
Option 1 ID : **4410091866906**
Option 2 ID : **4410091866908**
Option 3 ID : **4410091866905**
Option 4 ID : **4410091866907**
Status : **Answered**
Chosen Option : **B**

Q.15 **In this question, a question is followed by two statements numbered (I) and (II). You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and select the appropriate answer.**
Five research grants – Aspire, Catalyst, Elevate, Ignite and Propel – are awarded on five consecutive days from Monday to Friday. On which day is Elevate awarded?
(I) Elevate is awarded after Catalyst but before Propel.
(II) Aspire is awarded on Monday, Catalyst is awarded on Tuesday and Ignite is awarded on Friday.

Ans ✔ A. Both statements I and II together (and not statement I alone or statement II alone) are sufficient to answer the question.

✘ B. Data in statement I alone is sufficient to answer the question while data in statement II is not.

✘ C. Data in statement II alone is sufficient to answer the question while data in statement I is not.

✘ D. Both statements I and II together are NOT sufficient to answer the question.

Question ID : **4410092226446**
Option 1 ID : **4410098761109**
Option 2 ID : **4410098761110**
Option 3 ID : **4410098761111**
Option 4 ID : **4410098761112**
Status : **Answered**
Chosen Option : **A**

Q.16 **Seven boxes, C, H, A, I, R, E and D, are kept one over the other but not necessarily in the same order.**
Only three boxes are kept above C. Only one box is kept between D and C.
Only three boxes are kept between D and A. A is kept at some place above C.
I is kept immediately below A. H is kept at one of the places above E. R is not kept immediately above or below D.
Which box is kept at the lowermost position?

Ans ✔ A. E

✘ B. C

✘ C. I

✘ D. A

Question ID : **4410091526447**
Option 1 ID : **4410096028905**
Option 2 ID : **4410096028902**
Option 3 ID : **4410096028904**
Option 4 ID : **4410096028903**
Status : **Answered**
Chosen Option : **A**

Q.17 What should come in place of the question mark (?) in the given series?

9 13 21 33 49 ?

Ans
✗ A. 71
✗ B. 64
✓ C. 69
✗ D. 66

Question ID : **4410091201891**
Option 1 ID : **4410094741349**
Option 2 ID : **4410094741346**
Option 3 ID : **4410094741348**
Option 4 ID : **4410094741347**
Status : **Answered**
Chosen Option : **C**

Q.18 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements:
All mangoes are bulbs.
All eggs are bulbs.

Conclusions:
(I): Some mugs are eggs.
(II): All eggs are mugs.

Ans
✓ A. Neither conclusion (I) nor (II) follows
✗ B. Only conclusion (II) follows
✗ C. Only conclusion (I) follows
✗ D. Both conclusions (I) and (II) follow

Question ID : **44100929069**
Option 1 ID : **441009115748**
Option 2 ID : **441009115747**
Option 3 ID : **441009115746**
Option 4 ID : **441009115749**
Status : **Answered**
Chosen Option : **A**

Q.19 Refer to the following letter, symbol series and answer the question.
Counting to be done from left to right only.

(Left) E J @ J T @ & # R Y N * G M € E £ J O # L K (Right)

How many such letters are there, each of which is immediately preceded by a symbol and also immediately followed by a symbol?11893

Ans
✗ A. 0
✗ B. 3
✗ C. 2
✓ D. 1

Question ID : **441009701121**
Option 1 ID : **4410092758516**
Option 2 ID : **4410092758517**
Option 3 ID : **4410092758515**
Option 4 ID : **4410092758514**
Status : **Answered**
Chosen Option : **D**

Q.20 Select the option that represents the correct order of the given words as they would appear in an English dictionary.
1. Advocate
2. Appended
3. Attacker
4. Audience
5. Attuning

Ans
✗ A. 2, 1, 5, 4, 3
✗ B. 2, 1, 3, 5, 4
✗ C. 1, 3, 5, 2, 4
✓ D. 1, 2, 3, 5, 4

Question ID : **441009189478**
Option 1 ID : **441009747314**
Option 2 ID : **441009747313**
Option 3 ID : **441009747315**
Option 4 ID : **441009747312**
Status : **Answered**
Chosen Option : **D**

Q.21 **Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which is the one that 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
✗ A. PI – RM
✗ B. LA – NE
✓ C. SD – WG
✗ D. TQ – VU

Question ID : **44100910392**
Option 1 ID : **44100941359**
Option 2 ID : **44100941358**
Option 3 ID : **44100941361**
Option 4 ID : **44100941360**
Status : **Answered**
Chosen Option : **C**

Q.22 **An accurate clock shows 9:00 AM. By how many degrees will the hour hand rotate when the clock next shows 3:00 PM?**

Ans
✗ A. 150°
✗ B. 240°
✓ C. 180°
✗ D. 90°

Question ID : **4410092226434**
Option 1 ID : **4410098761062**
Option 2 ID : **4410098761063**
Option 3 ID : **4410098761061**
Option 4 ID : **4410098761064**
Status : **Answered**
Chosen Option : **C**

Q.23 **Seven boxes, C, H, A, N, G, E and D, are kept one over the other but not necessarily in the same order. Only four boxes are kept between N and A. Only C is kept above N. Only two boxes are kept between E and D. G is kept immediately above H. D is not kept immediately above G. How many boxes are kept between C and G?**3787

Ans
✗ A. Four
✗ B. Three
✗ C. One
✓ D. Two

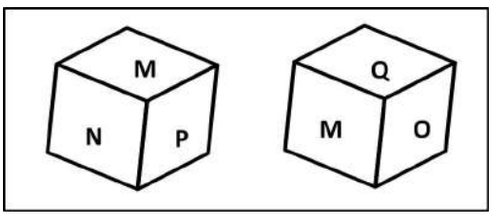
Question ID : **441009709956**
Option 1 ID : **4410092793798**
Option 2 ID : **4410092793797**
Option 3 ID : **4410092793795**
Option 4 ID : **4410092793796**
Status : **Answered**
Chosen Option : **B**

Q.24 If 18 July 2000 was Tuesday, then what day was it on 27 June 2000?6323

Ans
✗ A. Thursday
✓ B. Tuesday
✗ C. Monday
✗ D. Wednesday

Question ID : **441009726793**
Option 1 ID : **4410092860927**
Option 2 ID : **4410092860925**
Option 3 ID : **4410092860924**
Option 4 ID : **4410092860926**
Status : **Answered**
Chosen Option : **B**

Q.25 Six letters, M, N, O, P, Q and R, are written on different faces of a dice. Two positions of this dice are shown in the given figure. Find the letter on the face opposite to R.



Ans
✗ A. Q
✗ B. P
✗ C. N
✓ D. M

Question ID : **441009906534**
Option 1 ID : **4410093579946**
Option 2 ID : **4410093579947**
Option 3 ID : **4410093579944**
Option 4 ID : **4410093579945**
Status : **Answered**
Chosen Option : **D**

Section : **Part 4 General English**

Q.1 Select the option that can be used as a one-word substitute for 'a person who pretends to have virtues or moral beliefs'.

Ans
✗ A. Apostate
✗ B. Misanthrope
✗ C. Pedant
✓ D. Hypocrite

Question ID : **4410092220695**
Option 1 ID : **4410098738440**
Option 2 ID : **4410098738441**
Option 3 ID : **4410098738439**
Option 4 ID : **4410098738438**
Status : **Answered**
Chosen Option : **D**

Q.2 Correct the following sentence.

The team performed **remarkable** under pressure.

Ans
✗ A. The team performed too remarkably under pressure.
✗ B. The team performed more remarkable under pressure.
✗ C. The team performed very remarkably under pressure.
✓ D. The team performed remarkably under pressure.

Question ID : **4410091602965**
Option 1 ID : **4410096331159**
Option 2 ID : **4410096331157**
Option 3 ID : **4410096331156**
Option 4 ID : **4410096331158**
Status : **Answered**
Chosen Option : **D**

Q.3 Rectify the sentence by selecting the correct spelling of the word in bold from the options.
She was widely recognized for her **achievment** in the field of neuro-linguistics.

Ans
✗ A. achieevemnet
✓ B. achievement
✗ C. acheavement
✗ D. acheevmant

Question ID : **4410091349951**
Option 1 ID : **4410095331949**
Option 2 ID : **4410095331947**
Option 3 ID : **4410095331948**
Option 4 ID : **4410095331950**
Status : **Answered**
Chosen Option : **B**

Q.4 **Select the correct passive voice form of the given sentence.**

Management expects attendees to have completed the survey before the seminar.

Ans
✗ A. The survey is expected to complete before the seminar.

✗ B. The survey was expected to be completed before the seminar.

✓ C. The survey is expected to have been completed before the seminar.

✗ D. It is expected that attendees complete the survey before the seminar.

Question ID : **4410092220722**
Option 1 ID : **4410098738547**
Option 2 ID : **4410098738549**
Option 3 ID : **4410098738548**
Option 4 ID : **4410098738546**
Status : **Answered**
Chosen Option : **C**

Q.5 **Convert the following sentence from direct speech into the correct indirect speech form.**

Direct: The professor warned the research scholars, "If you submit your doctoral theses without completing the mandatory ethical clearance, the examination board will reject them without review."

Ans
✗ A. The professor warned the research scholars that if they submit their doctoral theses without completing the mandatory ethical clearance, the examination board will reject them without review.

✗ B. The professor warned the research scholars that if they had submitted their doctoral theses without completing the mandatory ethical clearance, the examination board would have rejected them without review.

✓ C. The professor warned the research scholars that if they submitted their doctoral theses without completing the mandatory ethical clearance, the examination board would reject them without review.

✗ D. The professor warned the research scholars that if they submitted their doctoral theses without completing the mandatory ethical clearance, the examination board had rejected them without review.

Question ID : **4410091848957**
Option 1 ID : **4410097288060**
Option 2 ID : **4410097288061**
Option 3 ID : **4410097288059**
Option 4 ID : **4410097288062**
Status : **Answered**
Chosen Option : **C**

Q.6 **Complete the sentence with the most appropriate option.**

In _____ context of global economics, _____ role of technology cannot be ignored.

Ans

✗ A. the; an

✗ B. a; a

✓ C. the; the

✗ D. the; a

Question ID : **4410091602490**
Option 1 ID : **4410096329534**
Option 2 ID : **4410096329535**
Option 3 ID : **4410096329536**
Option 4 ID : **4410096329537**
Status : **Answered**
Chosen Option : **C**

Q.7 **Select the sentence that is grammatically correct in its passive construction.**

Ans

✗ A. The policy was reported to have advised the CEO against prior notice.

✗ B. The CEO was reported having been advise against implementing the policy without prior notice.

✗ C. The CEO was reported to be had advised against implementing the policy without prior notice.

✓ D. The CEO was reported to have been advised against implementing the policy without prior notice.

Question ID : **4410092220723**
Option 1 ID : **4410098738551**
Option 2 ID : **4410098738552**
Option 3 ID : **4410098738550**
Option 4 ID : **4410098738553**
Status : **Answered**
Chosen Option : **D**

Q.8 **Rectify the sentence by selecting the correct spelling from the options:**
The professor emphasised that the conclusion was tenous, resting on assumptions rather than empirical evidence

Ans

✓ A. Tenuous

✗ B. Tennuous

✗ C. Teneous

✗ D. Tenoeus

Question ID : **4410091594069**
Option 1 ID : **4410096296531**
Option 2 ID : **4410096296532**
Option 3 ID : **4410096296533**
Option 4 ID : **4410096296530**
Status : **Answered**
Chosen Option : **C**

Q.9 **Select the appropriate meaning of the proverb from the options given.**
Proverb: A Chain is Only as Strong as its Weakest Link

Ans
✗ A. The longest-lasting materials make the strongest structures.

✗ B. Strength increases when all parts work independently.

✗ C. A strong leader can compensate for weak members in a team.

✓ D. The overall strength of a group depends on its most vulnerable member.

Question ID : **4410092093**
Option 1 ID : **4410098310**
Option 2 ID : **4410098309**
Option 3 ID : **4410098311**
Option 4 ID : **4410098312**
Status : **Answered**
Chosen Option : **D**

Q.10 **Identify the error in the given sentence and choose the option that rectifies it correctly.**

Although the board is reviewing the merger proposal, several shareholders are desiring an immediate suspension of negotiations.

Ans
✗ A. Although the board is reviewing the merger proposal, several shareholders holds a desire for an immediate suspension of negotiations.

✗ B. Although the board is reviewing the merger proposal, several shareholders are in desire of an immediate suspension of negotiations.

✓ C. Although the board is reviewing the merger proposal, several shareholders desire an immediate suspension of negotiations.

✗ D. Although the board is reviewing the merger proposal, several shareholders were desiring an immediate suspension of negotiations.

Question ID : **4410092220714**
Option 1 ID : **4410098738517**
Option 2 ID : **4410098738514**
Option 3 ID : **4410098738515**
Option 4 ID : **4410098738516**
Status : **Answered**
Chosen Option : **C**

Q.11 **Complete the sentence by choosing the best combination of options for the blanks, such that the sentence is grammatically correct.**

It is __(1)__ universal truth that the role of universities is not primarily to give you __(2)__ aesthetically pleasing experience, but rather __(3)__ intellectually stimulating one.

Ans
✗ A. (1) an (2) a (3) an

✗ B. (1) a (2) an (3) a

✗ C. (1) an (2) an (3) an

✓ D. (1) a (2) an (3) an

Question ID : **441009165904**
Option 1 ID : **441009656749**
Option 2 ID : **441009656751**
Option 3 ID : **441009656750**
Option 4 ID : **441009656752**
Status : **Answered**
Chosen Option : **C**

Q.12 **Select the most appropriate synonym of the underlined word in the given sentence.**

Her <u>meticulous</u> attention to detail impressed the hiring committee.

Ans

✔ A. thorough

✘ B. relaxed

✘ C. average

✘ D. careless

Question ID : **441009291583**
Option 1 ID : **4410091133171**
Option 2 ID : **4410091133172**
Option 3 ID : **4410091133173**
Option 4 ID : **4410091133170**
Status : **Answered**
Chosen Option : **A**

Q.13 **Select the option that can be used as a one-word substitute for 'a person who collects stamps as a hobby'.**

Ans

✘ A. Cartographer

✘ B. Ornithologist

✘ C. Numismatist

✔ D. Philatelist

Question ID : **4410092220696**
Option 1 ID : **4410098738445**
Option 2 ID : **4410098738443**
Option 3 ID : **4410098738442**
Option 4 ID : **4410098738444**
Status : **Answered**
Chosen Option : **A**

Q.14 **Given the direct speech sentence: "Are you attending the seminar?" asked the professor. Which indirect form would best fit a scholarly article, maintaining the correct reporting verb and question structure?**

Ans

✔ A. The professor asked if I was attending the seminar.

✘ B. The professor asked am I attending the seminar.

✘ C. The professor inquired whether I attend the seminar.

✘ D. The professor said if I am attending the seminar.

Question ID : **4410092220686**
Option 1 ID : **4410098738403**
Option 2 ID : **4410098738402**
Option 3 ID : **4410098738405**
Option 4 ID : **4410098738404**
Status : **Answered**
Chosen Option : **A**

Q.15 **Identify the meaning of the given idiom from the options.**

'Hoist with one's own petard'

Ans
✗ A. Deposed from power by an internal uprising

✗ B. Defeated in a contest by an opponent using superior strategy

✓ C. Caught or harmed by one's own scheme

✗ D. Exposed and disgraced after a secret plot is revealed

Question ID : **4410092220715**
Option 1 ID : **4410098738518**
Option 2 ID : **4410098738521**
Option 3 ID : **4410098738519**
Option 4 ID : **4410098738520**
Status : **Answered**
Chosen Option : **C**

Q.16 **The following sentence has been split into segments. Identify the segment that contains an error.**

(A) Before the independent judiciary commission released its landmark verdict on institutional accountability, / (B) civil society organisations / (C) had been monitor the proceedings / (D) for over eighteen months with considerable public attention

Ans
✓ A. had been monitor the proceedings

✗ B. for over eighteen months with considerable public attention

✗ C. Before the independent judiciary commission released its landmark verdict on institutional accountability,

✗ D. civil society organisations

Question ID : **4410091848955**
Option 1 ID : **4410097288053**
Option 2 ID : **4410097288054**
Option 3 ID : **4410097288051**
Option 4 ID : **4410097288052**
Status : **Answered**
Chosen Option : **A**

Q.17 **A statement divided into different segments is given below. The first segment is fixed; rearrange the other segments to form a coherent statement.**

It is a formidable structure, / With reinforced steel walls (P) / That block out all sound (Q) / Lined with insulation panels (R) / Built to withstand high impact (S)

Ans
✗ A. R P S Q

✗ B. Q S P R

✗ C. S Q R P

✓ D. P R Q S

Question ID : **4410092220699**
Option 1 ID : **4410098738455**
Option 2 ID : **4410098738454**
Option 3 ID : **4410098738457**
Option 4 ID : **4410098738456**
Status : **Answered**
Chosen Option : **C**

Q.18 **A sentence with a grammatical error is given here. Select the option that will rectify this error.**

Between the two investment strategies, this one is the most effective.

Ans

✔ A. Between the two investment strategies, this one is more effective.

✘ B. Among the two investment strategies, this one is most effective.

✘ C. Between the two investment strategies, this one is much effective.

✘ D. Between the two investment strategies, this one is effective.

Question ID : **4410091647806**
Option 1 ID : **4410096507482**
Option 2 ID : **4410096507483**
Option 3 ID : **4410096507484**
Option 4 ID : **4410096507481**
Status : **Answered**
Chosen Option : **B**

Q.19 **A statement divided into different segments is given below. The first segment is fixed; rearrange the other segments to form a coherent statement.**

Advanced syntax structures, / Are typically mastered (P) / After extensive practice (Q) / By graduate-level students (R) / In academic settings (S)

Ans

✘ A. Q P R S

✘ B. S Q P R

✘ C. R Q S P

✔ D. P R S Q

Question ID : **4410092220698**
Option 1 ID : **4410098738451**
Option 2 ID : **4410098738450**
Option 3 ID : **4410098738452**
Option 4 ID : **4410098738453**
Status : **Answered**
Chosen Option : **D**

Q.20 **A sentence with a grammatical error is given here. Select the option that will rectify this error.**

Mrs. Sharma was looking for a less riskier investment option for her retirement portfolio.

Ans

✘ A. Mrs. Sharma was looking for a lesser riskier option for her retirement portfolio.

✘ B. Mrs. Sharma was looking for a riskiest investment option for her retirement portfolio.

✔ C. Mrs. Sharma was looking for a less risky option for her retirement portfolio.

✘ D. Mrs. Sharma was looking for a least riskier investment option for her retirement portfolio.

Question ID : **4410091647807**
Option 1 ID : **4410096507488**
Option 2 ID : **4410096507485**
Option 3 ID : **4410096507486**
Option 4 ID : **4410096507487**
Status : **Answered**
Chosen Option : **C**

Comprehension:

Read the given passage and answer the questions that follow.

The discoveries of feathered dinosaur fossils from the Jurassic and Cretaceous sediments of China and elsewhere document a diverse range of feather types, from monofilamentous structures to highly complex flight feathers. These findings reveal a general evolutionary trend of increasing complexity that led to the cladogenesis of birds. The widespread occurrence of foot feathers in Mesozoic theropods—ranging from short filamentous forms in basal species to large vaned feathers in more derived theropods, including early birds—clarifies feather-scale relationships and integumentary evolution linked to the origins of flight. It also suggests that bird flight likely evolved through a four-winged stage.
With numerous well-preserved dinosaur fossils spanning a wide range of geological periods, the morphological, functional, and temporal transition from ground-dwelling to flight-capable theropods is now one of the best-documented evolutionary transitions. At the same time, studies beyond palaeontology offer further insight into the evolution of key avian traits, including feathers, flight, endothermy, reproductive strategies, growth patterns, and a specialized pulmonary system. The defining features of modern birds largely evolved in a gradual, stepwise manner throughout theropod evolution. However, recent findings also indicate occasional bursts of morphological innovation, particularly near the origin of birds, along with a complex, mosaic distribution of traits across the theropod lineage. Research into bird origins thus serves as a model for integrating paleontological and neontological evidence to better understand major evolutionary transitions and guide future scientific inquiry.

SubQuestion No : 21

Q.21 What is the most appropriate title for the passage?

Ans

✗ A. The Role of China in Fossil Discoveries: An Analytical Study

✗ B. The Sudden Emergence of Birds in Evolutionary History

✗ C. Modern Birds and Their Unique Physiological Systems

✓ D. Feathered Dinosaurs and the Gradual Evolution of Avian Traits

Question ID : **4410091867022**
Option 1 ID : **4410097356281**
Option 2 ID : **4410097356278**
Option 3 ID : **4410097356280**
Option 4 ID : **4410097356279**
Status : **Answered**
Chosen Option : **D**

Comprehension:

Read the given passage and answer the questions that follow.

The discoveries of feathered dinosaur fossils from the Jurassic and Cretaceous sediments of China and elsewhere document a diverse range of feather types, from monofilamentous structures to highly complex flight feathers. These findings reveal a general evolutionary trend of increasing complexity that led to the cladogenesis of birds. The widespread occurrence of foot feathers in Mesozoic theropods—ranging from short filamentous forms in basal species to large vaned feathers in more derived theropods, including early birds—clarifies feather-scale relationships and integumentary evolution linked to the origins of flight. It also suggests that bird flight likely evolved through a four-winged stage.
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SubQuestion No : 22

Q.22 What is the structure of the passage?

Ans

✔ A. Descriptive explanation followed by analytical synthesis and conclusion

✘ B. Problem–solution followed by a concluding argument

✘ C. Cause-and-effect discussion limited to climate change

✘ D. Chronological narration of fossil discoveries

Question ID : **4410091867023**
Option 1 ID : **4410097356284**
Option 2 ID : **4410097356282**
Option 3 ID : **4410097356285**
Option 4 ID : **4410097356283**
Status : **Answered**
Chosen Option : **A**

Comprehension:

Read the given passage and answer the questions that follow.

The discoveries of feathered dinosaur fossils from the Jurassic and Cretaceous sediments of China and elsewhere document a diverse range of feather types, from monofilamentous structures to highly complex flight feathers. These findings reveal a general evolutionary trend of increasing complexity that led to the cladogenesis of birds. The widespread occurrence of foot feathers in Mesozoic theropods—ranging from short filamentous forms in basal species to large vaned feathers in more derived theropods, including early birds—clarifies feather-scale relationships and integumentary evolution linked to the origins of flight. It also suggests that bird flight likely evolved through a four-winged stage.
With numerous well-preserved dinosaur fossils spanning a wide range of geological periods, the morphological, functional, and temporal transition from ground-dwelling to flight-capable theropods is now one of the best-documented evolutionary transitions. At the same time, studies beyond palaeontology offer further insight into the evolution of key avian traits, including feathers, flight, endothermy, reproductive strategies, growth patterns, and a specialized pulmonary system. The defining features of modern birds largely evolved in a gradual, stepwise manner throughout theropod evolution. However, recent findings also indicate occasional bursts of morphological innovation, particularly near the origin of birds, along with a complex, mosaic distribution of traits across the theropod lineage. Research into bird origins thus serves as a model for integrating paleontological and neontological evidence to better understand major evolutionary transitions and guide future scientific inquiry.

SubQuestion No : 23

Q.23 Which of the following best represents a real-world connection of the passage?

Ans

✗ A. Developing advanced technologies and aerodynamic models to improve artificial flight systems in aircraft

✓ B. Using fossil evidence and interdisciplinary research to understand long-term biological evolution

✗ C. Promoting tourism and educational awareness in fossil-rich regions to support conservation and research initiatives

✗ D. Studying modern birds and their ecological roles to enhance sustainable agricultural productivity practices

Question ID : **4410091867024**
Option 1 ID : **4410097356287**
Option 2 ID : **4410097356286**
Option 3 ID : **4410097356289**
Option 4 ID : **4410097356288**
Status : **Answered**
Chosen Option : **B**

Comprehension:

Read the given passage and answer the questions that follow.

The discoveries of feathered dinosaur fossils from the Jurassic and Cretaceous sediments of China and elsewhere document a diverse range of feather types, from monofilamentous structures to highly complex flight feathers. These findings reveal a general evolutionary trend of increasing complexity that led to the cladogenesis of birds. The widespread occurrence of foot feathers in Mesozoic theropods—ranging from short filamentous forms in basal species to large vaned feathers in more derived theropods, including early birds—clarifies feather-scale relationships and integumentary evolution linked to the origins of flight. It also suggests that bird flight likely evolved through a four-winged stage.
With numerous well-preserved dinosaur fossils spanning a wide range of geological periods, the morphological, functional, and temporal transition from ground-dwelling to flight-capable theropods is now one of the best-documented evolutionary transitions. At the same time, studies beyond palaeontology offer further insight into the evolution of key avian traits, including feathers, flight, endothermy, reproductive strategies, growth patterns, and a specialized pulmonary system. The defining features of modern birds largely evolved in a gradual, stepwise manner throughout theropod evolution. However, recent findings also indicate occasional bursts of morphological innovation, particularly near the origin of birds, along with a complex, mosaic distribution of traits across the theropod lineage. Research into bird origins thus serves as a model for integrating paleontological and neontological evidence to better understand major evolutionary transitions and guide future scientific inquiry.

SubQuestion No : 24

Q.24 Choose the word that is opposite in meaning to “gradual” as used in the passage.

Ans

✗ A. Labyrinthine

✗ B. Ephemeral

✓ C. Saltatory

✗ D. Anomalous

Question ID : **4410091867025**
Option 1 ID : **4410097356290**
Option 2 ID : **4410097356293**
Option 3 ID : **4410097356292**
Option 4 ID : **4410097356291**
Status : **Answered**
Chosen Option : **C**

Comprehension:

Read the given passage and answer the questions that follow.

The discoveries of feathered dinosaur fossils from the Jurassic and Cretaceous sediments of China and elsewhere document a diverse range of feather types, from monofilamentous structures to highly complex flight feathers. These findings reveal a general evolutionary trend of increasing complexity that led to the cladogenesis of birds. The widespread occurrence of foot feathers in Mesozoic theropods—ranging from short filamentous forms in basal species to large vaned feathers in more derived theropods, including early birds—clarifies feather-scale relationships and integumentary evolution linked to the origins of flight. It also suggests that bird flight likely evolved through a four-winged stage.
With numerous well-preserved dinosaur fossils spanning a wide range of geological periods, the morphological, functional, and temporal transition from ground-dwelling to flight-capable theropods is now one of the best-documented evolutionary transitions. At the same time, studies beyond palaeontology offer further insight into the evolution of key avian traits, including feathers, flight, endothermy, reproductive strategies, growth patterns, and a specialized pulmonary system. The defining features of modern birds largely evolved in a gradual, stepwise manner throughout theropod evolution. However, recent findings also indicate occasional bursts of morphological innovation, particularly near the origin of birds, along with a complex, mosaic distribution of traits across the theropod lineage. Research into bird origins thus serves as a model for integrating paleontological and neontological evidence to better understand major evolutionary transitions and guide future scientific inquiry.

SubQuestion No : 25

Q.25 Which of the following statements is best supported by the passage?

Ans

✗ A. It's clearly evident that bird flight evolved instantly without intermediate stages

✗ B. As per research feathers first appeared only in modern birds

✓ C. The transition from dinosaurs to birds is well documented through fossils

✗ D. All bird characteristics appeared simultaneously in evolution

Question ID : **4410091867026**
Option 1 ID : **4410097356294**
Option 2 ID : **4410097356297**
Option 3 ID : **4410097356296**
Option 4 ID : **4410097356295**
Status : **Answered**
Chosen Option : **C**

Section : **Part 5 Domain Knowledge**

Q.1 Which type of relay operates when the current exceeds a predetermined value?

Ans

✓ A. Overcurrent relay

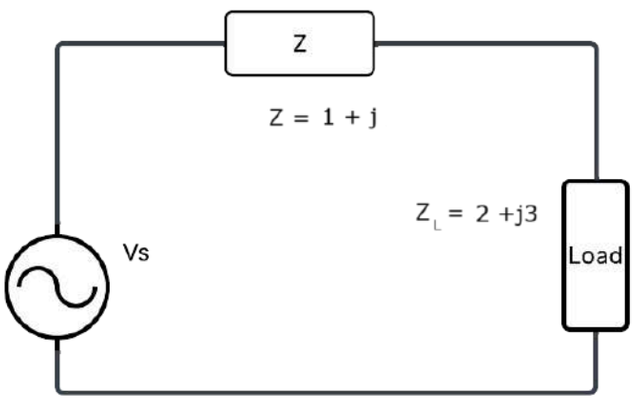
✗ B. Buchholz relay

✗ C. Differential relay

✗ D. Distance relay

Question ID : **4410091160547**
Option 1 ID : **4410094576741**
Option 2 ID : **4410094576744**
Option 3 ID : **4410094576743**
Option 4 ID : **4410094576742**
Status : **Answered**
Chosen Option : **A**

Q.2 Calculate the reactive power of the load circuit with the supply voltage of Vs $= 20 \angle 0°$.



Ans
- ✔ A. 48 VAR
- ✘ B. 12 VAR
- ✘ C. 24 VAR
- ✘ D. 10 VAR

Question ID : **4410091213814**
Option 1 ID : **4410094788657**
Option 2 ID : **4410094788660**
Option 3 ID : **4410094788658**
Option 4 ID : **4410094788659**
Status : **Answered**
Chosen Option : **A**

Q.3 **For a uniformly charged insulating sphere of total charge Q and radius R, which of the following statements about the electric field is correct?**

Ans
- ✘ A. The electric field inside is the same as that outside the sphere.
- ✘ B. The electric field outside the sphere decreases linearly with distance.
- ✘ C. The electric field inside the sphere is zero.
- ✔ D. The electric field inside the sphere varies linearly with distance from the center.

Question ID : **441009117576**
Option 1 ID : **441009467487**
Option 2 ID : **441009467488**
Option 3 ID : **441009467485**
Option 4 ID : **441009467486**
Status : **Answered**
Chosen Option : **D**

Q.4 **During steady-state operation of a direct current (DC) chopper with constant duty ratio, what is the effect on the limit of continuous conduction mode when the switching frequency is doubled while the load parameters remain unchanged?**

Ans ✔ A. The minimum load current required to maintain continuous conduction mode will decrease

✘ B. The peak-to-peak ripple magnitude of the load current will increase

✘ C. The duty ratio of the direct current chopper will automatically double

✘ D. The average output voltage of the direct current chopper will decrease

Question ID : **4410091715945**
Option 1 ID : **4410096767619**
Option 2 ID : **4410096767618**
Option 3 ID : **4410096767617**
Option 4 ID : **4410096767620**
Status : **Answered**
Chosen Option : **A**

Q.5 **Choose the correct statement for the reactive power of electrodynamometer instrument (EDMI).**

S1: If Q1, Q2 and Q3 are the individual phase reactive power, then the total reactive power (Q) of an unbalanced system is Q = Q1=Q2=Q3.
S2: In a four-wire system, unbalanced currents can flow through the neutral wire, which does not happen in a perfectly balanced system.

Ans ✘ A. S1 only

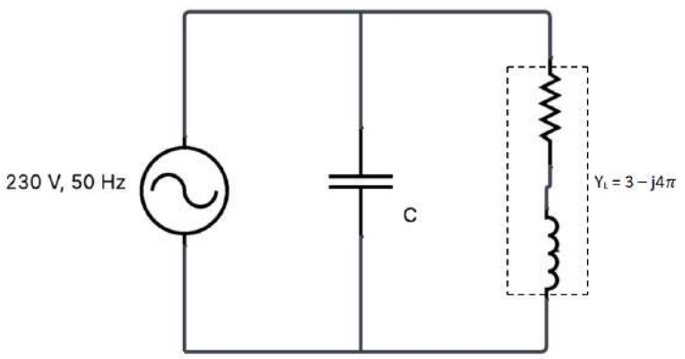
✘ B. S1 and S2

✔ C. S2 only

✘ D. Neither S1 nor S2

Question ID : **4410091421675**
Option 1 ID : **4410095615601**
Option 2 ID : **4410095615602**
Option 3 ID : **4410095615600**
Option 4 ID : **4410095615603**
Status : **Answered**
Chosen Option : **D**

Q.6 **Find the value of the capacitor given in the following parallel circuit at the resonance condition.**



Ans
- ✗ A. 1 F
- ✗ B. 0.1 F
- ✓ C. 0.04 F
- ✗ D. 2 F

Question ID : **4410091215000**
Option 1 ID : **4410094793403**
Option 2 ID : **4410094793401**
Option 3 ID : **4410094793402**
Option 4 ID : **4410094793400**
Status : **Answered**
Chosen Option : **C**

Q.7 **What does the penalty factor in economic dispatch account for?**

Ans
- ✗ A. The ratio of total transmission losses to total power generated
- ✗ B. The peak demand charges in transmission systems
- ✗ C. The average transmission losses over a specific period
- ✓ D. The incremental transmission losses with respect to power generation

Question ID : **441009688027**
Option 1 ID : **4410092706136**
Option 2 ID : **4410092706139**
Option 3 ID : **4410092706138**
Option 4 ID : **4410092706137**
Status : **Answered**
Chosen Option : **A**

Q.8 Let $A = \begin{bmatrix} 6 & 0 \\ 0 & 2 \end{bmatrix}$ Consider the following statements about its eig

1. Eigenvectors corresponding to distinct eigenvalues are linea
2. Any scalar multiple of an eigenvector is also an eigenvector
3. Eigenvectors corresponding to the same eigenvalue are alw

Which of the above statements are true?

Ans
- ✗ A. 2 and 3 only
- ✗ B. 1, 2, and 3
- ✗ C. 1 only
- ✓ D. 1 and 2 only

Question ID : **4410091231042**
Option 1 ID : **4410094857643**
Option 2 ID : **4410094857644**
Option 3 ID : **4410094857645**
Option 4 ID : **4410094857642**
Status : **Answered**
Chosen Option : **D**

Q.9 **For a buck converter,**
Given:

$f_s = 100\ kHz,$

$V_{in} = 12\ V,$

$V_o = 6\ V,$

$I_o = 2\ A,$

$L = 75\ \mu H$

Find the ripple current in the inductor.

Ans
- ✗ A. 0.33 A
- ✗ B. 0.2 A
- ✗ C. 0.3 A
- ✓ D. 0.4 A

Question ID : **441009718662**
Option 1 ID : **4410092828356**
Option 2 ID : **4410092828353**
Option 3 ID : **4410092828354**
Option 4 ID : **4410092828355**
Status : **Answered**
Chosen Option : **B**

Q.10 **Which of the following devices operates as a double excited system?**

Ans
✗ A. Transformer

✗ B. Universal motor

✓ C. Synchronous motor

✗ D. Three-phase induction motor

Question ID : **44100995731**
Option 1 ID : **441009380892**
Option 2 ID : **441009380893**
Option 3 ID : **441009380895**
Option 4 ID : **441009380894**
Status : **Answered**
Chosen Option : **C**

Q.11 **Two linear time-invariant systems P and Q have the following closed-loop pole locations:**
System P: poles at s = −1 ± j2 and s = −5
System Q: poles at s = −0.2 ± j0.5 and s = −3
Which of the following statements is most accurate?

Ans
✗ A. Both systems are absolutely stable and equally stable relative to each other.

✓ B. System P is absolutely stable and more stable relative to Q, because its dominant poles lie further to the left in the s-plane.

✗ C. System Q is absolutely stable and more stable relative to P, because its dominant poles are closer to the jω-axis.

✗ D. Both systems are marginally stable because they have complex conjugate poles.

Question ID : **4410091287443**
Option 1 ID : **4410095081559**
Option 2 ID : **4410095081560**
Option 3 ID : **4410095081561**
Option 4 ID : **4410095081562**
Status : **Answered**
Chosen Option : **B**

Q.12 **A discrete random variable Y models the number of successful tests out of four independent trials, each with a probability of success 0.25. What is the probability that Y takes the value 2?**

Ans
✗ A. 0.1406

✗ B. 0.2813

✓ C. 0.2109

✗ D. 0.4219

Question ID : **4410092311333**
Option 1 ID : **4410099089955**
Option 2 ID : **4410099089956**
Option 3 ID : **4410099089953**
Option 4 ID : **4410099089954**
Status : **Answered**
Chosen Option : **B**

Q.13 In a standard 3-phase half-controlled (3-pulse) rectifier, if the input supply frequency is 50 Hz, the ripple frequency of the output voltage is:

Ans
✗ A. 100 Hz
✗ B. 600 Hz
✗ C. 200 Hz
✓ D. 150 Hz

Question ID : **4410091711799**
Option 1 ID : **4410096751414**
Option 2 ID : **4410096751416**
Option 3 ID : **4410096751415**
Option 4 ID : **4410096751417**
Status : **Answered**
Chosen Option : **D**

Q.14 A moving iron ammeter has resistance 0.1 Ω and full-scale 5 A. To extend it to 25 A, required shunt is:

Ans
✗ A. 0.05 Ω
✗ B. 0.5 Ω
✗ C. 0.125 Ω
✓ D. 0.025 Ω

Question ID : **4410091350853**
Option 1 ID : **4410095335527**
Option 2 ID : **4410095335529**
Option 3 ID : **4410095335528**
Option 4 ID : **4410095335526**
Status : **Answered**
Chosen Option : **D**

Q.15 Which of the following Excess-3 codes represents an invalid decimal digit?

Ans
✗ A. 0011
✗ B. 1001
✓ C. 1110
✗ D. 0101

Question ID : **4410091863110**
Option 1 ID : **4410097342638**
Option 2 ID : **4410097342641**
Option 3 ID : **4410097342640**
Option 4 ID : **4410097342639**
Status : **Answered**
Chosen Option : **C**

Q.16 The 2% settling time (T_s) for a second-order system for damping ratio ζ and frequency ω_n is approximately given by:

Ans

✔ A. $\frac{4}{\zeta\omega_n}$

✘ B. $\frac{2}{\zeta\omega_n}$

✘ C. $\frac{3.2}{\zeta(\omega_n^2-1)}$

✘ D. $\frac{2}{\zeta(\omega_n^2-1)}$

Question ID : **4410091308115**
Option 1 ID : **4410095164119**
Option 2 ID : **4410095164120**
Option 3 ID : **4410095164122**
Option 4 ID : **4410095164121**
Status : **Answered**
Chosen Option : **A**

Q.17 The Laplace Transform of signal $r(t) = t \cdot \sin(t)$ is _____

Ans

✔ A. $\frac{2s}{(s^2+1)^2}$

✘ B. $\frac{1}{(s^2+1)^2}$

✘ C. $\frac{s}{2(s^2+1)^2}$

✘ D. $\frac{s}{(s^2+1)^2}$

Question ID : **4410091113516**
Option 1 ID : **4410094390075**
Option 2 ID : **4410094390074**
Option 3 ID : **4410094390077**
Option 4 ID : **4410094390076**
Status : **Answered**
Chosen Option : **A**

Q.18 Two 10-V voltage sources, each with a 5-Ω series resistor, are connected in parallel. Using source transformation, find the equivalent source.

Ans

✗ A. 20 V with 5 Ω series resistor

✗ B. 15 V with 5 Ω series resistor

✓ C. 10 V with 2.5 Ω series resistor

✗ D. 5 V with 5 Ω series resistor

Question ID : **4410091235294**
Option 1 ID : **4410094874907**
Option 2 ID : **4410094874909**
Option 3 ID : **4410094874906**
Option 4 ID : **4410094874908**
Status : **Answered**
Chosen Option : **C**

Q.19 A _____ is a type of unsymmetrical fault where two of the three phases of a power system come into direct contact with each other, creating a short circuit. It does not involve the ground.

Ans

✗ A. Symmetrical three-phase (L-L-L) Fault

✗ B. Single Line-to-Ground (L-G) Fault

✓ C. Line-to-Line (L-L) fault

✗ D. Double Line-to-Ground (L-L-G) Fault

Question ID : **4410091200038**
Option 1 ID : **4410094733973**
Option 2 ID : **4410094733971**
Option 3 ID : **4410094733970**
Option 4 ID : **4410094733972**
Status : **Answered**
Chosen Option : **C**

Q.20 When a unit step input is applied to a unity feedback system, it has a closed-loop transfer function of the form:

$$T(s) = \frac{\omega_n^2}{s^2 + 2\zeta\omega_n s + \omega_n^2}.$$

If the system's peak time is measured to be t_p=0.6s and the damping ratio is ζ=0.5, which of the following options is the approximate value of the natural frequency, ω_n? Take the value of $\sqrt{0.75} = 0.866$ for numerical calculations.

Ans

✗ A. $\omega_n \approx 7\ \text{rad/s}$

✗ B. $\omega_n \approx 4\ \text{rad/s}$

✓ C. $\omega_n \approx 6\ \text{rad/s}$

✗ D. $\omega_n \approx 5\ \text{rad/s}$

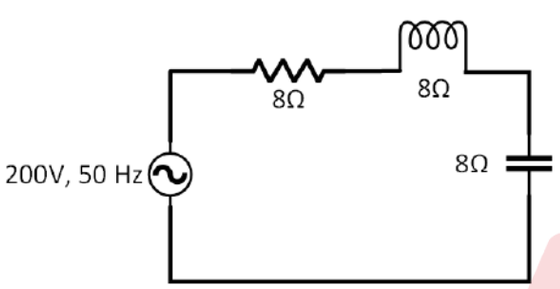
Question ID : **4410091198147**
Option 1 ID : **4410094726486**
Option 2 ID : **4410094726483**
Option 3 ID : **4410094726485**
Option 4 ID : **4410094726484**
Status : **Answered**
Chosen Option : **B**

Q.21 A discrete-time LTI system has impulse response $h[n] = (0.5)^n u[n]$. Determine whether the system is stable.

Ans
- ✗ A. Unstable, since energy is infinite
- ✗ B. Marginally stable, because of constant amplitude
- ✓ C. Stable, since |0.5| <1
- ✗ D. Stable, because ∑ |h[n]| < ∞

Question ID : **4410091426091**
Option 1 ID : **4410095632952**
Option 2 ID : **4410095632954**
Option 3 ID : **4410095632951**
Option 4 ID : **4410095632953**
Status : **Answered**
Chosen Option : **C**

Q.22 Find the input power factor of the given series RLC circuit.



Ans
- ✓ A. unity
- ✗ B. $\frac{1}{\sqrt{2}}$
- ✗ C. zero
- ✗ D. 0.5

Question ID : **4410091192844**
Option 1 ID : **4410094705291**
Option 2 ID : **4410094705294**
Option 3 ID : **4410094705292**
Option 4 ID : **4410094705293**
Status : **Answered**
Chosen Option : **A**

Q.23 When a synchronous motor connected to weak grid experiences a sudden load increase, which damping phenomenon dominates first?

Ans

✗ A. Magnetic saturation damping

✗ B. Mechanical inertia

✗ C. Excitation control loop

✓ D. Electrical damping by damper bars

Question ID : **4410091411221**
Option 1 ID : **4410095573902**
Option 2 ID : **4410095573903**
Option 3 ID : **4410095573904**
Option 4 ID : **4410095573901**
Status : **Answered**
Chosen Option : **A**

Q.24 Two infinitely long straight line charges intersect perpendicularly at the origin:
• The first, with linear charge density λ_1, lies along the x-axis
• The second, with linear charge density λ_2, lies along the y-axis
Find the net electric field vector at the point P(a, a, 0).

Ans

✓ A. $\frac{\lambda_1}{2\pi\varepsilon_0 a}\mathbf{a}_y + \frac{\lambda_2}{2\pi\varepsilon_0 a}\mathbf{a}_x$

✗ B. $\frac{\lambda_1}{2\pi\varepsilon_0 a}\mathbf{a}_x + \frac{\lambda_2}{2\pi\varepsilon_0 a}\mathbf{a}_y$

✗ C. $\frac{\lambda_1}{2\pi\varepsilon_0 a}\mathbf{a}_x - \frac{\lambda_2}{2\pi\varepsilon_0 a}\mathbf{a}_y$

✗ D. $\frac{\lambda_1 + \lambda_2}{2\pi\varepsilon_0 a}$ (magnitude only)

Question ID : **4410091458204**
Option 1 ID : **4410095761094**
Option 2 ID : **4410095761093**
Option 3 ID : **4410095761095**
Option 4 ID : **4410095761092**
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Q.25 The transient voltage appearing across the circuit breaker contacts at the instant of arc extinction is called:

Ans

✗ A. fault voltage

✓ B. re-striking voltage

✗ C. recovery voltage

✗ D. breaker surge voltage

Question ID : **441009329961**
Option 1 ID : **4410091286293**
Option 2 ID : **4410091286291**
Option 3 ID : **4410091286290**
Option 4 ID : **4410091286292**
Status : **Answered**
Chosen Option : **B**

Q.26 **In a control system, a process is regulated by both positive and negative feedback loops. Consider a system where the output y(t)*y(t)* is governed by the differential equation,**

$$\frac{dy}{dt} = k_1 y(t) - k_2 y^2(t)$$

where k_1 and k_2 are positive constants.

Which of the following statements accurately describes the roles of positive and negative feedback in this system?

Ans

✔ A. The term k1 y(t) represents positive feedback, promoting exponential growth, while k2 y2(t) represents negative feedback, stabilizing the system by limiting growth.

✘ B. The term k1 y(t) represents negative feedback, reducing the output, while k2 y2(t) represents positive feedback, amplifying the output.

✘ C. The term k1 y(t) represents positive feedback, while k2 y2(t) represents a second positive feedback loop, leading to runaway growth.

✘ D. Both k1 y(t) and k2 y2(t) represent negative feedback, working together to stabilise the system.

Question ID : **44100948250**
Option 1 ID : **441009192172**
Option 2 ID : **441009192173**
Option 3 ID : **441009192175**
Option 4 ID : **441009192174**
Status : **Answered**
Chosen Option : **B**

Q.27 **Which of the following factors most directly reduces the efficiency of a long transmission line?**

Ans

✔ A. High line resistance

✘ B. High voltage

✘ C. Use of bundled conductors

✘ D. Use of low power factor loads

Question ID : **4410091160534**
Option 1 ID : **4410094576690**
Option 2 ID : **4410094576689**
Option 3 ID : **4410094576691**
Option 4 ID : **4410094576692**
Status : **Answered**
Chosen Option : **A**

Q.28 What continuity correction is typically applied when using the normal approximation for the binomial distribution?

Ans
✗ A. Multiply by 0.5
✗ B. Subtract 1 from the variance
✓ C. Add or subtract 0.5 to the discrete variable
✗ D. Add 1 to the mean

Question ID : **4410092311332**
Option 1 ID : **4410099089952**
Option 2 ID : **4410099089950**
Option 3 ID : **4410099089951**
Option 4 ID : **4410099089949**
Status : **Answered**
Chosen Option : **C**

Q.29 In an auto-sequential commutated inverter, incomplete discharge of the commutation capacitor results in _____.

Ans
✗ A. increase of inverter output voltage
✓ B. failure of commutation of the next thyristor
✗ C. reduction in commutation overlap
✗ D. reduction in DC link current

Question ID : **4410091412111**
Option 1 ID : **4410095577473**
Option 2 ID : **4410095577472**
Option 3 ID : **4410095577474**
Option 4 ID : **4410095577475**
Status : **Answered**
Chosen Option : **C**

Q.30 What is the function of the turbulator in a low oil circuit breaker?

Ans
✓ A. Controlling the arc by directing oil through vents
✗ B. Supporting the moving contact
✗ C. Cooling the arc using external air
✗ D. Preventing oil from vaporizing

Question ID : **441009329938**
Option 1 ID : **4410091286200**
Option 2 ID : **4410091286201**
Option 3 ID : **4410091286198**
Option 4 ID : **4410091286199**
Status : **Answered**
Chosen Option : **A**

Q.31 Given two dielectric media with $\varepsilon_1 > \varepsilon_2$, and an electric displacement vector D_1 in medium 1 incident at an angle θ_1 with respect to the normal of the boundary, what can be said about the magnitudes of D_2 and E_2 in medium 2?

Ans
- ✗ A. $D_2 > D_1$ and $E_2 < E_1$
- ✗ B. $D_2 < D_1$ and $E_2 < E_1$
- ✗ C. $D_2 > D_1$ and $E_2 > E_1$
- ✓ D. $D_2 < D_1$ and $E_2 > E_1$

Question ID : **4410091182694**
Option 1 ID : **4410094664827**
Option 2 ID : **4410094664825**
Option 3 ID : **4410094664826**
Option 4 ID : **4410094664828**
Status : **Answered**
Chosen Option : **B**

Q.32 In a series RLC circuit, the natural frequency (in rad/sec) is given by _____.

Ans
- ✗ A. LC
- ✗ B. $\sqrt{LC}$
- ✓ C. $\frac{1}{\sqrt{LC}}$
- ✗ D. $\frac{1}{LC}$

Question ID : **441009678842**
Option 1 ID : **4410092669573**
Option 2 ID : **4410092669572**
Option 3 ID : **4410092669570**
Option 4 ID : **4410092669571**
Status : **Answered**
Chosen Option : **C**

Q.33 For the equation $y'' - 4y' + 4y = 0$, what is the form of the general solution?

Ans
- ✗ A. $y = Ae^{4x} + Be^{-4x}$
- ✗ B. $y = Ae^{2x}$
- ✓ C. $y = (A + Bx)e^{2x}$
- ✗ D. $y = Ae^{2x} + Be^{-2x}$

Question ID : **4410092311318**
Option 1 ID : **4410099089896**
Option 2 ID : **4410099089893**
Option 3 ID : **4410099089895**
Option 4 ID : **4410099089894**
Status : **Answered**
Chosen Option : **C**

Q.34 Why are MI instruments less accurate for AC measurement?

Ans
✗ A. High inductance
✗ B. Cannot detect polarity
✗ C. Cannot be calibrated
✓ D. Frequency-dependent errors

Question ID : **4410091160601**
Option 1 ID : **4410094576959**
Option 2 ID : **4410094576957**
Option 3 ID : **4410094576960**
Option 4 ID : **4410094576958**
Status : **Answered**
Chosen Option : **D**

Q.35 A solid is bounded by $x^2 + y^2 \le 4$, $0 \le z \le 3$. If the density at any point is $\delta(x, y, z) = z$, what is the mass of the solid?

Ans
✗ A. 24π
✗ B. 36π
✗ C. 12π
✓ D. 18π

Question ID : **4410092311314**
Option 1 ID : **4410099089880**
Option 2 ID : **4410099089879**
Option 3 ID : **4410099089877**
Option 4 ID : **4410099089878**
Status : **Answered**
Chosen Option : **A**

Q.36 An infinitely long line charge of density $\rho_l = 6\ \mu C/m$ is placed along the z-axis. Coaxial with it is a thin cylindrical shell of radius a = 1 m carrying a uniform surface charge density $\rho_s = -(3/\pi)\ \mu C/m^2$. Using Gauss's law, determine the electric flux density **D** as a function of radial distance r.

Ans
✗ A. $D = (6/\pi r)\ a_r\ \mu C/m^2$ for $0 < r < 1$; $D = 0$ for $r > 1$
✗ B. $D = (6/\pi r)\ a_r\ \mu C/m^2$ for $0 < r < 1$; $D = (3/\pi r)\ a_r\ \mu C/m^2$ for $r > 1$
✓ C. $D = (3/\pi r)\ a_r\ \mu C/m^2$ for $0 < r < 1$; $D = 0$ for $r > 1$
✗ D. $D = 0$ for $0 < r < 1$; $D = (3/\pi r)\ a_r\ \mu C/m^2$ for $r > 1$

Question ID : **4410091578648**
Option 1 ID : **4410096235679**
Option 2 ID : **4410096235681**
Option 3 ID : **4410096235678**
Option 4 ID : **4410096235680**
Status : **Answered**
Chosen Option : **B**

Q.37 A system is stable if all closed-loop poles:

Ans
✗ A. Lie on the imaginary axis
✗ B. Are purely imaginary
✓ C. Lie on the left half of the s-plane
✗ D. Lie on the right half of the s-plane

Question ID : **4410091419350**
Option 1 ID : **4410095606323**
Option 2 ID : **4410095606326**
Option 3 ID : **4410095606325**
Option 4 ID : **4410095606324**
Status : **Answered**
Chosen Option : **C**

Q.38 Which parameter can be varied using PWM to control inverter output?

Ans
✗ A. Load resistance
✗ B. Output waveform shape
✓ C. Output voltage amplitude
✗ D. Output frequency only

Question ID : **4410091160386**
Option 1 ID : **4410094576106**
Option 2 ID : **4410094576107**
Option 3 ID : **4410094576108**
Option 4 ID : **4410094576105**
Status : **Answered**
Chosen Option : **C**

Q.39 Determine the Gray code of decimal number 43.

Ans
✗ A. 101011
✗ B. 010100
✓ C. 111110
✗ D. 110111

Question ID : **4410091506641**
Option 1 ID : **4410095950915**
Option 2 ID : **4410095950916**
Option 3 ID : **4410095950917**
Option 4 ID : **4410095950918**
Status : **Answered**
Chosen Option : **C**

Q.40 Which law forms the basis of mesh analysis?

Ans
✗ A. KCL
✗ B. Ohm's law
✗ C. Faraday's law
✓ D. KVL

Question ID : **4410091233971**
Option 1 ID : **4410094869512**
Option 2 ID : **4410094869513**
Option 3 ID : **4410094869514**
Option 4 ID : **4410094869511**
Status : **Answered**
Chosen Option : **D**

Q.41 In the transient analysis of an inductor, which of the following statements is correct regarding the behaviour of inductor current at the instant of switching?

Ans
✗ A. Inductor current always becomes zero immediately after the switch is opened.
✗ B. Inductor current and voltage both remain constant during switching.
✓ C. Inductor current cannot change instantaneously because that would require infinite voltage.
✗ D. Inductor current can change instantaneously if a high voltage is applied.

Question ID : **4410091183027**
Option 1 ID : **4410094666168**
Option 2 ID : **4410094666167**
Option 3 ID : **4410094666166**
Option 4 ID : **4410094666165**
Status : **Answered**
Chosen Option : **C**

Q.42 Which component of Single-Phase Energy Meter (SPEM) controls the speed of the rotating disc?

Ans
✗ A. Pressure coil
✗ B. Driving system
✗ C. Current coil
✓ D. Brake magnet

Question ID : **4410091161975**
Option 1 ID : **4410094582468**
Option 2 ID : **4410094582466**
Option 3 ID : **4410094582469**
Option 4 ID : **4410094582467**
Status : **Answered**
Chosen Option : **D**

Q.43 A toroidal magnetic core of mean circumference $2\pi R$ and uniform cross-sectional area A is wound with N turns of a tightly coupled winding carrying current I. The core material is linear up to saturation, with relative permeability μ_r, beyond which the flux density cannot exceed B_{sat}.
Assume fringing and leakage flux are negligible, and that the magnetic field is uniformly distributed within the core.
Under these conditions, determine the critical value of current (i.e., the maximum permissible excitation current I_{max}) at which the flux density in the core just attains B_{sat}.

Ans

✗ A. $I_{max} = \frac{2\pi R \mu_0 \mu_r B_{sat}}{N}$

✗ B. $I_{max} = \frac{B_{sat} A}{\mu_0 \mu_r N}$

✗ C. $I_{max} = \frac{N B_{sat}}{2\pi R \mu_0 \mu_r}$

✓ D. $I_{max} = \frac{2\pi R B_{sat}}{\mu_0 \mu_r N}$

Question ID : **4410091160032**
Option 1 ID : **4410094574701**
Option 2 ID : **4410094574700**
Option 3 ID : **4410094574702**
Option 4 ID : **4410094574699**
Status : **Answered**
Chosen Option : **D**

Q.44 Which of the following is the effect on resonant peak if the damping ratio of a second order control system increases?

Ans

✓ A. Decreases

✗ B. Become infinite

✗ C. Increases

✗ D. Remain constant

Question ID : **441009678825**
Option 1 ID : **4410092669503**
Option 2 ID : **4410092669505**
Option 3 ID : **4410092669502**
Option 4 ID : **4410092669504**
Status : **Answered**
Chosen Option : **A**

Q.45 **In potential transformer, the ratio error has importance in _____, while for _____, both ratio and phase angle errors are involved.**

Ans
- ✗ A. power measurement; current measurement
- ✗ B. voltage measurement; current measurement
- ✗ C. impedance measurement; power measurement
- ✓ D. voltage measurement; power measurement

Question ID : **4410091188139**
Option 1 ID : **4410094686811**
Option 2 ID : **4410094686812**
Option 3 ID : **4410094686813**
Option 4 ID : **4410094686810**
Status : **Answered**
Chosen Option : **D**

Q.46 **If three identical resistors of resistance R each are connected in a delta (Δ) configuration, what is the equivalent resistance of each branch when converted into a star (Y) configuration?**

Ans
- ✗ A. R/4
- ✗ B. 3R
- ✗ C. R/2
- ✓ D. R/3

Question ID : **441009167775**
Option 1 ID : **441009664144**
Option 2 ID : **441009664145**
Option 3 ID : **441009664142**
Option 4 ID : **441009664143**
Status : **Answered**
Chosen Option : **D**

Q.47 **A chemical tank leaks fluid at a rate proportional to the amount present. If the initial quantity is 80 liters and after 1 hour only 60 liters remain, which linear first-order ODE correctly models this scenario?**

Ans
- ✗ A. $dy/dt = -k\,y^2,\ y(0) = 80$
- ✓ B. $dy/dt = -k\,y,\ y(0) = 80$
- ✗ C. $dy/dt = -k,\ y(0) = 80$
- ✗ D. $dy/dt = k\,y,\ y(0) = 80$

Question ID : **4410092311323**
Option 1 ID : **4410099089915**
Option 2 ID : **4410099089914**
Option 3 ID : **4410099089916**
Option 4 ID : **4410099089913**
Status : **Marked For Review**
Chosen Option : **A**

Q.48 What is the average value of a signal x(t) over interval [0,T]?

Ans
✔ A. $\frac{1}{T}\int_0^T x(t)\,dt$

✘ B. $\sqrt{\frac{1}{T}\int_0^T x(t)\,dt}$

✘ C. $\frac{1}{T}\int_0^T [x(t)]^2\,dt$

✘ D. $T\int_0^T x(t)\,dt$

Question ID : **4410091354371**
Option 1 ID : **4410095349665**
Option 2 ID : **4410095349667**
Option 3 ID : **4410095349666**
Option 4 ID : **4410095349668**
Status : **Answered**
Chosen Option : **A**

Q.49 Which statement is true about the torque on a dipole in a uniform electric field?

Ans
✔ A. It causes the dipole to rotate and align with the field.

✘ B. It creates a new dipole moment.

✘ C. It increases the dipole's charge.

✘ D. It always points in the direction of the field.

Question ID : **4410091138278**
Option 1 ID : **4410094488191**
Option 2 ID : **4410094488193**
Option 3 ID : **4410094488192**
Option 4 ID : **4410094488190**
Status : **Answered**
Chosen Option : **A**

Q.50 What is the typical commutation frequency range of the smaller size and light weight four-quadrant transistor chopper?

Ans
✘ A. 50 to 100 Hz

✘ B. 500 to 1000 Hz

✘ C. 5 to 10 kHz

✔ D. 10 to 50 kHz

Question ID : **441009138428**
Option 1 ID : **441009549947**
Option 2 ID : **441009549948**
Option 3 ID : **441009549949**
Option 4 ID : **441009549950**
Status : **Answered**
Chosen Option : **B**

Q.51 **A protective relay is defined as an electrical device that is connected between the main circuit and the circuit breaker to:**

Ans
✗ A. measure the frequency of the system and regulate power flow

✗ B. monitor the system's voltage and adjust the current settings

✓ C. detect faults and initiate the operation of the circuit breaker to isolate the defective section

✗ D. detect faults and control the operation of the transformer

Question ID : **44100966254**
Option 1 ID : **441009263965**
Option 2 ID : **441009263963**
Option 3 ID : **441009263964**
Option 4 ID : **441009263962**
Status : **Answered**
Chosen Option : **C**

Q.52 **In a certain region, the current density is given by $J(r, t) = J_0 r e^{-\alpha t}$, where $J_0 > 0$, $\alpha > 0$, and r is the position vector. The charge density is zero at t = 0. For t > 0, how does the charge density ρ(r, t) behave?**

Ans
✗ A. It remains zero for all time.

✗ B. It oscillates between positive and negative values.

✓ C. It becomes negative and decreases monotonically.

✗ D. It increases from zero and becomes positive.

Question ID : **4410091578678**
Option 1 ID : **4410096235801**
Option 2 ID : **4410096235804**
Option 3 ID : **4410096235803**
Option 4 ID : **4410096235802**
Status : **Not Answered**
Chosen Option : **--**

Q.53 **Choose the correct option for Static VAR Compensator.**

Static VAR Compensator is used for:
1. Voltage control
2. Surge impedance compensation
3. Improving the overall power factor
4. Making the system unstable

Ans
✓ A. Only 1, 2 and 3

✗ B. Only 1 and 4

✗ C. Only 2 and 3

✗ D. Only 1

Question ID : **4410091533933**
Option 1 ID : **4410096058938**
Option 2 ID : **4410096058936**
Option 3 ID : **4410096058937**
Option 4 ID : **4410096058935**
Status : **Answered**
Chosen Option : **A**

Q.54 **MOSFETs are preferred over BJT in IC technology because MOSFETs _____.**

Ans

✗ A. have high power dissipation

✗ B. are physically large

✓ C. require minimal chip area

✗ D. increase fabrication cost

Question ID : **4410091185065**
Option 1 ID : **4410094674372**
Option 2 ID : **4410094674373**
Option 3 ID : **4410094674374**
Option 4 ID : **4410094674375**
Status : **Answered**
Chosen Option : **C**

Q.55 **Calibration of single-phase energy meter ensures:**

Ans

✗ A. low torque at no load

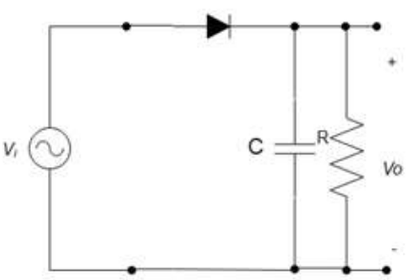
✗ B. reduction in voltage drop

✓ C. accuracy of energy reading

✗ D. high friction

Question ID : **4410091161967**
Option 1 ID : **4410094582434**
Option 2 ID : **4410094582437**
Option 3 ID : **4410094582436**
Option 4 ID : **4410094582435**
Status : **Answered**
Chosen Option : **C**

Q.56 Consider a peak detector circuit in figure (Assume diode is ideal) fed by 50-Hz sinusoidal having peak value V_p = 10 V. Let the load resistance R = 10 KΩ. Determine the value of capacitance C (assume time constant RC value much higher than time period of sinusoidal V_i) that will result in peak to peak ripple of 2 V.
V_I and V_o denote input and output voltages respectively.



Ans
✔ A. 10 μF
✘ B. 50 μF
✘ C. 25 μF
✘ D. 20 μF

Question ID : **4410091262961**
Option 1 ID : **4410094984796**
Option 2 ID : **4410094984798**
Option 3 ID : **4410094984795**
Option 4 ID : **4410094984797**
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Q.57 Which of the following correctly defines a double excited magnetic system?

Ans
✘ A. A system excited only by permanent magnets
✔ B. A magnetic system where two windings carry current
✘ C. A system with zero magnetic field
✘ D. A system using only one coil

Question ID : **4410091142503**
Option 1 ID : **4410094504950**
Option 2 ID : **4410094504951**
Option 3 ID : **4410094504952**
Option 4 ID : **4410094504953**
Status : **Answered**
Chosen Option : **B**

Q.58 **Choose the correct statement for the construction of a potential transformer.**

S1: In potential transformer, there are thermal problems caused by overloads.
S2: Oil filled bushings are usually used for oil filled potential transformer.

Ans
- ✗ A. only S1
- ✗ B. S1 and S2 both
- ✗ C. Neither S1 nor S2
- ✓ D. Only S2

Question ID : **4410091418110**
Option 1 ID : **4410095601362**
Option 2 ID : **4410095601363**
Option 3 ID : **4410095601364**
Option 4 ID : **4410095601361**
Status : **Answered**
Chosen Option : **B**

Q.59 **The Quasi-saturation region is commonly observed in which of the following devices?**

Ans
- ✗ A. LED
- ✓ B. MOSFET
- ✗ C. DIAC
- ✗ D. Diode

Question ID : **441009949802**
Option 1 ID : **4410093752657**
Option 2 ID : **4410093752656**
Option 3 ID : **4410093752655**
Option 4 ID : **4410093752654**
Status : **Answered**
Chosen Option : **C**

Q.60 **How does the starting current of a three-phase squirrel-cage induction motor compare with its rated current when the motor is started using the direct-on-line (DOL) starting method?**

Ans
- ✓ A. The starting current is several times greater than the rated current value
- ✗ B. The starting current varies randomly without following a definite pattern
- ✗ C. The starting current is always lower than the rated current value
- ✗ D. The starting current is approximately equal to the rated current value

Question ID : **4410091715866**
Option 1 ID : **4410096767303**
Option 2 ID : **4410096767304**
Option 3 ID : **4410096767302**
Option 4 ID : **4410096767301**
Status : **Answered**
Chosen Option : **A**

Q.61 **A single-phase half-wave controlled rectifier with an RL load (R = 10 Ω, L = 20 mH) is supplied by a 120 V, 50 Hz AC source. If the average output voltage E_{dc} is 25% of the maximum possible average output voltage $E_{dc,max}$, then the value of $\cos\alpha$ is:**

Ans

✗ A. $\cos\alpha = \frac{3}{2}$

✗ B. $\cos\alpha = \frac{-3}{4}$

✓ C. $\cos\alpha = \frac{-1}{2}$

✗ D. $\cos\alpha = -1$

Question ID : **4410091185361**
Option 1 ID : **4410094675618**
Option 2 ID : **4410094675619**
Option 3 ID : **4410094675617**
Option 4 ID : **4410094675620**
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Q.62 **Suppose z = x^3y^2, with x and y dependent on s. How do you express $\frac{dz}{ds}$ in terms of partial derivatives and chain rule?**

Ans

✗ A. $\frac{dz}{ds} = x^3\frac{dx}{ds} + y^2\frac{dy}{ds}$

✓ B. $\frac{dz}{ds} = 3x^2y^2\frac{dx}{ds} + 2x^3y\frac{dy}{ds}$

✗ C. $\frac{dz}{ds} = 3x^2\frac{dx}{ds} + 2y\frac{dy}{ds}$

✗ D. $\frac{dz}{ds} = x^2y^2\frac{dx}{ds} + x^3y\frac{dy}{ds}$

Question ID : **4410092311313**
Option 1 ID : **4410099089875**
Option 2 ID : **4410099089874**
Option 3 ID : **4410099089873**
Option 4 ID : **4410099089876**
Status : **Answered**
Chosen Option : **C**

Q.63 Let the Bilateral Laplace Transform of a signal f(t) be F(s) with a Region of Convergence (ROC) R_f : $\sigma_1 < Re\{s\} < \sigma_2$. If g(t) = f(−t), which of the following is the correct Laplace Transform, G(s), and its corresponding ROC, R_g?

Ans
✗ A. G(s)=−F(s), with R_g: $-\sigma_2 < Re\{s\} < -\sigma_1$.

✗ B. G(s)=F(−s), with R_g: $\sigma_1 < Re\{s\} < \sigma_2$.

✓ C. G(s)=F(−s), with R_g: $-\sigma_2 < Re\{s\} < -\sigma_1$.

✗ D. G(s)=F(s), with R_g: $-\sigma_2 < Re\{s\} < -\sigma_1$.

Question ID : **4410091386904**
Option 1 ID : **4410095478301**
Option 2 ID : **4410095478300**
Option 3 ID : **4410095478299**
Option 4 ID : **4410095478302**
Status : **Answered**
Chosen Option : **B**

Q.64 The total electric field at a point due to multiple discrete charges is found using the:

Ans
✗ A. difference between the largest and smallest field

✓ B. vector sum of individual fields

✗ C. product of charge and distance

✗ D. arithmetic sum of the charges

Question ID : **44100989437**
Option 1 ID : **441009355902**
Option 2 ID : **441009355899**
Option 3 ID : **441009355901**
Option 4 ID : **441009355900**
Status : **Answered**
Chosen Option : **B**

Q.65 A parallel RLC circuit exhibits resonance at $f_0 = 1$ MHz. The half-power frequencies are found to be $f_1 = 0.98$ MHz and $f_2 = 1.02$ MHz. What is the shape of the frequency response curve and what is the implication on circuit design?

Ans
✗ A. Flat curve; impedance remains constant across frequency

✗ B. Narrow curve; suitable for broadband applications

✓ C. Narrow curve; circuit is highly selective

✗ D. Broad curve; circuit is highly selective

Question ID : **441009166552**
Option 1 ID : **441009659373**
Option 2 ID : **441009659371**
Option 3 ID : **441009659372**
Option 4 ID : **441009659370**
Status : **Answered**
Chosen Option : **C**

Q.66 In entered variable map, the size of K-map is reduced by _____.

Ans

✔ A. one degree

✘ B. N degrees

✘ C. two degrees

✘ D. zero degrees

Question ID : **4410092673332**
Option 1 ID : **4410091038579**
Option 2 ID : **4410091038582**
Option 3 ID : **4410091038580**
Option 4 ID : **4410091038581**
Status : **Answered**
Chosen Option : **D**

Q.67 Define the unit ramp signal r(t).

Ans

✔ A. $r(t) = t\,u(t)$

✘ B. $r(t) = 2u(t)$

✘ C. $r(t) = \frac{1}{t}\,u(t)$

✘ D. $r(t) = 3\delta(t)$

Question ID : **4410091248404**
Option 1 ID : **4410094926779**
Option 2 ID : **4410094926780**
Option 3 ID : **4410094926782**
Option 4 ID : **4410094926781**
Status : **Answered**
Chosen Option : **A**

Q.68 The continuous time signal is given by $x(t) = e^{-2(-t)}\,u(-t)$. What is its Laplace transform X(s) and its Region of Convergence (ROC)?

Ans

✔ A. $X(s) = -\frac{1}{s-2}$; ROC: $Re(s) < 2$

✘ B. $X(s) = \frac{1}{s+2}$; ROC: $Re(s) > -2$

✘ C. $X(s) = \frac{1}{2-s}$; ROC: $Re(s) > 2$

✘ D. $X(s) = \frac{1}{s+2}$; ROC: $Re(s) < -2$

Question ID : **4410091448096**
Option 1 ID : **4410095720872**
Option 2 ID : **4410095720873**
Option 3 ID : **4410095720874**
Option 4 ID : **4410095720875**
Status : **Answered**
Chosen Option : **A**

Q.69 **Which of the following is an advantage of implementing a digital controller compared to analog compensators in modern control system design?**

Ans
- ✗ A. Ability to reduce system gain without affecting bandwidth constraints
- ✗ B. Increased sensitivity to voltage fluctuations
- ✗ C. Elimination of feedback requirements in system design
- ✓ D. Flexibility to adapt to dynamic plant variations via software modifications

Question ID : **4410091154187**
Option 1 ID : **4410094551445**
Option 2 ID : **4410094551448**
Option 3 ID : **4410094551447**
Option 4 ID : **4410094551446**
Status : **Answered**
Chosen Option : **D**

Q.70 **_____ are designed to minimise magnetising current and reduce reluctance at the interleaved corners by assembling the lamination stacks with a slightly larger core cross-section than standard transformers.**

Ans
- ✓ A. Current transformers
- ✗ B. Power transformers
- ✗ C. Distribution transformers
- ✗ D. Isolation transformers

Question ID : **4410091188126**
Option 1 ID : **4410094686754**
Option 2 ID : **4410094686755**
Option 3 ID : **4410094686756**
Option 4 ID : **4410094686757**
Status : **Answered**
Chosen Option : **D**

Q.71 **In a binary weighted resistor DAC, what is the ratio of the resistance values for adjacent bits?**

Ans
- ✓ A. 2:1
- ✗ B. 4:1
- ✗ C. 1:1
- ✗ D. 3:1

Question ID : **4410091150655**
Option 1 ID : **4410094537578**
Option 2 ID : **4410094537579**
Option 3 ID : **4410094537576**
Option 4 ID : **4410094537577**
Status : **Answered**
Chosen Option : **A**

Q.72 If $f(z) = z^2 + 3z$ and C is the circle $|z| = 3$, which value does the integral $\int_C \frac{f(z)}{z-2} dz$ yield according to Cauchy's integral formula?

Ans
- ✗ A. $36\pi i$
- ✓ B. $20\pi i$
- ✗ C. $10\pi i$
- ✗ D. 0

Question ID : **4410092311325**
Option 1 ID : **4410099089922**
Option 2 ID : **4410099089924**
Option 3 ID : **4410099089923**
Option 4 ID : **4410099089921**
Status : **Not Answered**
Chosen Option : **--**

Q.73 Flux in the core of a transformer remains the same from no-load to full-load; this is the reason why _____ in a transformer remain the same from no-load to full-load.

Ans
- ✗ A. ohmic losses
- ✗ B. dielectric losses
- ✗ C. stray losses
- ✓ D. iron losses

Question ID : **441009934841**
Option 1 ID : **4410093693082**
Option 2 ID : **4410093693084**
Option 3 ID : **4410093693083**
Option 4 ID : **4410093693081**
Status : **Answered**
Chosen Option : **D**

Q.74 Which of the following statements is correct about signed number representations in digital systems?
A) In sign-magnitude representation, the MSB represents the sign, and the remaining bits represent the magnitude.
B) In 1's complement representation, a negative number is obtained by flipping all the bits of its positive counterpart.
C) In 2's complement representation, a negative number is obtained by taking the 1's complement of its positive counterpart and adding 1.

Ans
- ✗ A. Only B and C
- ✓ B. All A, B and C
- ✗ C. Only A and C
- ✗ D. Only A and B

Question ID : **4410091259431**
Option 1 ID : **4410094970582**
Option 2 ID : **4410094970583**
Option 3 ID : **4410094970581**
Option 4 ID : **4410094970580**
Status : **Answered**
Chosen Option : **B**

Q.75 **Zero sequence reactance of the transformer does not depend on _____.**

Ans
- ✔ A. load connected to the transformer
- ✘ B. connection of the transformer
- ✘ C. winding of the transformer
- ✘ D. both connection and winding of the transformer

Question ID : **441009309579**
Option 1 ID : **4410091204855**
Option 2 ID : **4410091204852**
Option 3 ID : **4410091204853**
Option 4 ID : **4410091204854**
Status : **Answered**
Chosen Option : **C**

Q.76 **A linear time-invariant (LTI) system has an impulse response h(t). If the input to the system is: $x(t) = \delta(t-2) + 3\delta(t+2)$, what will be the output of the system y(t)?**

Ans
- ✔ A. $y(t) = h(t-2) + 3h(t+2)$
- ✘ B. $y(t) = h(t-2) + h(t+2)$
- ✘ C. $y(t) = h(t-2) + 3h(3t+2)$
- ✘ D. $y(t) = h(t-2) + h(3t+2)$

Question ID : **4410091857575**
Option 1 ID : **4410097321212**
Option 2 ID : **4410097321214**
Option 3 ID : **4410097321215**
Option 4 ID : **4410097321213**
Status : **Answered**
Chosen Option : **A**

Q.77 **The maximum lagging-current test helps in determining:**

Ans
- ✘ A. load angle
- ✘ B. excitation EMF
- ✘ C. iron losses
- ✔ D. Potier reactance

Question ID : **4410091160045**
Option 1 ID : **4410094574754**
Option 2 ID : **4410094574753**
Option 3 ID : **4410094574752**
Option 4 ID : **4410094574751**
Status : **Answered**
Chosen Option : **D**

Q.78 Consider an enhancement-mode NMOS device whose source is tied to ground. If the threshold voltage is V_t = 0.7 V and the gate receives a DC bias of 1.5 V. For the device to operate in the triode region, the drain voltage V_D must be:

Ans
✗ A. 1.5 V
✗ B. 0.9 V
✓ C. 0.5 V
✗ D. 3 V

Question ID : **4410091266322**
Option 1 ID : **4410094998165**
Option 2 ID : **4410094998163**
Option 3 ID : **4410094998164**
Option 4 ID : **4410094998166**
Status : **Answered**
Chosen Option : **C**

Q.79 What is the sum of the eigenvalues of the matrix $D = \begin{pmatrix} 5 & 2 \\ 1 & 4 \end{pmatrix}$?

Ans
✗ A. 7
✓ B. 9
✗ C. 6
✗ D. 10

Question ID : **4410092311306**
Option 1 ID : **4410099089845**
Option 2 ID : **4410099089848**
Option 3 ID : **4410099089846**
Option 4 ID : **4410099089847**
Status : **Answered**
Chosen Option : **B**

Q.80 If a synchronous condenser is switched into a distribution network that already has switched capacitors, what is the immediate combined effect on voltage profile and system resonance risk?

Ans
✗ A. Voltage worsens and resonance risk decreases.
✗ B. No change in voltage; resonance is eliminated.
✗ C. Voltage improves; resonance risk is always eliminated.
✓ D. Voltage improves and the risk of resonance may increase if natural frequency is close to switching frequency.

Question ID : **4410091414478**
Option 1 ID : **4410095586881**
Option 2 ID : **4410095586882**
Option 3 ID : **4410095586883**
Option 4 ID : **4410095586880**
Status : **Answered**
Chosen Option : **D**

Q.81 **Which of the following best describes the contour C required for Cauchy's theorem to apply?**

Ans

✗ A. A self-intersecting curve

✓ B. A simple closed curve

✗ C. An open curve

✗ D. A curve with endpoints

Question ID : **4410092311326**
Option 1 ID : **4410099089928**
Option 2 ID : **4410099089927**
Option 3 ID : **4410099089925**
Option 4 ID : **4410099089926**
Status : **Answered**
Chosen Option : **B**

Q.82 **In parallel operation of alternators, synchronizing power acts to:**

Ans

✗ A. Maintain constant terminal voltage

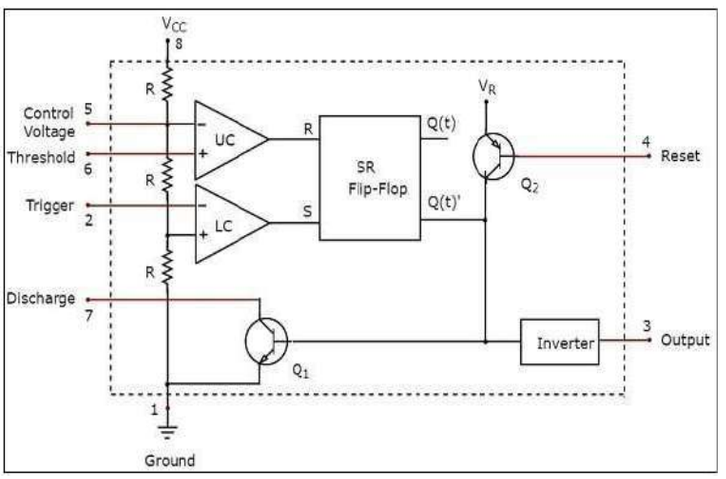
✗ B. Increase power factor of the alternator

✓ C. Restore synchronism during small disturbances in load angle

✗ D. Control the speed of prime mover

Question ID : **441009686994**
Option 1 ID : **4410092701997**
Option 2 ID : **4410092701996**
Option 3 ID : **4410092701998**
Option 4 ID : **4410092701999**
Status : **Answered**
Chosen Option : **C**

Q.83 **A 555 timer uses three equal resistors as an internal voltage divider. If the middle resistor of the internal voltage divider becomes open-circuited, what will be the effect on the timer's operation?**



Ans

✗ A. The timer will oscillate at double the normal frequency.

✗ B. The output will remain permanently high.

✓ C. The output will remain permanently low.

✗ D. The timer will operate normally.

Question ID : **4410091392029**
Option 1 ID : **4410095497820**
Option 2 ID : **4410095497818**
Option 3 ID : **4410095497819**
Option 4 ID : **4410095497817**
Status : **Not Answered**
Chosen Option : **--**

Q.84 **Why do squirrel cage induction motors generally have low starting torque?**

Ans

✗ A. Their stator current is independent of rotor design.

✓ B. Their rotor resistance is low and fixed.

✗ C. They operate at low slip during starting.

✗ D. Their rotor reactance is negligible.

Question ID : **44100955944**
Option 1 ID : **441009222705**
Option 2 ID : **441009222704**
Option 3 ID : **441009222707**
Option 4 ID : **441009222706**
Status : **Answered**
Chosen Option : **B**

Q.85 What is the primary advantage of using a cylindrical rotor type alternator?

Ans
- ✗ A. Better cooling due to rotor design
- ✗ B. Simplicity of construction
- ✗ C. Higher efficiency at low speeds
- ✓ D. Ability to generate higher voltages at high speeds

Question ID : **441009290827**
Option 1 ID : **4410091130185**
Option 2 ID : **4410091130187**
Option 3 ID : **4410091130184**
Option 4 ID : **4410091130186**
Status : **Answered**
Chosen Option : **D**

Q.86 Which of the following best describes the Continuous-Time Fourier Transform (CTFT)?

Ans
- ✗ A. It is used to represent discrete-time periodic signals
- ✗ B. It is only valid for finite-length signals
- ✗ C. It is only defined for causal systems
- ✓ D. It expresses both periodic and non-periodic signals in the frequency domain

Question ID : **44100970969**
Option 1 ID : **441009282311**
Option 2 ID : **441009282313**
Option 3 ID : **441009282314**
Option 4 ID : **441009282312**
Status : **Answered**
Chosen Option : **D**

Q.87 Why is Laplace's equation used when calculating the capacitance of an electrostatic configuration?

Ans
- ✗ A. It directly outputs the charge on the conductors
- ✗ B. It provides the magnetic field distribution
- ✓ C. It gives the electrostatic potential distribution
- ✗ D. It determines the electric field without applying boundary conditions

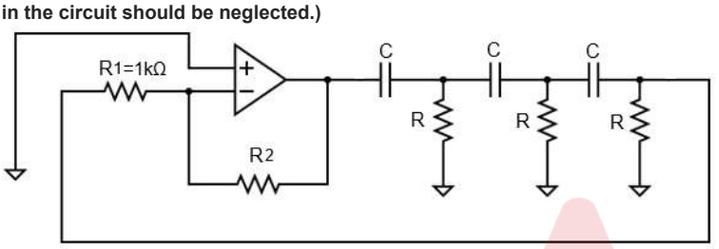
Question ID : **44100918072**
Option 1 ID : **44100972121**
Option 2 ID : **44100972119**
Option 3 ID : **44100972120**
Option 4 ID : **44100972122**
Status : **Answered**
Chosen Option : **C**

Q.88 **Which of the following is NOT an advantage of electrodynamometer instruments?**

Ans
- ✗ A. They are suitable for measuring both current and voltage in AC circuits.
- ✗ B. They are highly accurate for measuring power in both resistive and inductive loads.
- ✓ C. They have linear scales for displaying readings.
- ✗ D. They experience low hysteresis and eddy current errors.

Question ID : **4410093167OO**
Option 1 ID : **4410091233277**
Option 2 ID : **4410091233274**
Option 3 ID : **4410091233275**
Option 4 ID : **4410091233276**
Status : **Answered**
Chosen Option : **D**

Q.89 **Consider a RC phase shift oscillator having operational amplifier connected as an inverting amplifier as shown in the figure. What should be the value of resistance R2 for the unity loop gain of this circuit? (Note: Any minor losses in the circuit should be neglected.)**



Ans
- ✗ A. 19 kΩ
- ✗ B. 1 kΩ
- ✓ C. 29 kΩ
- ✗ D. 6 kΩ

Question ID : **4410091170830**
Option 1 ID : **4410094617597**
Option 2 ID : **4410094617595**
Option 3 ID : **4410094617598**
Option 4 ID : **4410094617596**
Status : **Answered**
Chosen Option : **B**

Q.90 A transformer with winding resistance and magnetic leakage is equivalent to an ideal transformer (having no resistance and leakage resistance) having _____ connected in series with each winding.

Ans
✗ A. resistive and capacitive coils only
✓ B. resistive and inductive coils only
✗ C. inductive coils only
✗ D. capacitive coils only

Question ID : **4410091194199**
Option 1 ID : **4410094710719**
Option 2 ID : **4410094710718**
Option 3 ID : **4410094710720**
Option 4 ID : **4410094710721**
Status : **Answered**
Chosen Option : **B**

Q.91 Which of the following is a major cause of error in a current transformer?

Ans
✗ A. High secondary voltage
✗ B. Poor insulation resistance
✓ C. Core saturation and leakage reactance
✗ D. High primary current

Question ID : **441009950700**
Option 1 ID : **4410093756201**
Option 2 ID : **4410093756203**
Option 3 ID : **4410093756204**
Option 4 ID : **4410093756202**
Status : **Answered**
Chosen Option : **C**

Q.92 In a series RLC circuit, the power delivered to the circuit at resonance is _____.

Ans
✗ A. maximum, because the current is minimum
✗ B. minimum, because the impedance is minimum
✗ C. minimum, because the impedance is maximum
✓ D. maximum, because the impedance is minimum

Question ID : **441009138239**
Option 1 ID : **441009549183**
Option 2 ID : **441009549185**
Option 3 ID : **441009549184**
Option 4 ID : **441009549182**
Status : **Answered**
Chosen Option : **D**

Q.93 **In electrostatics, solving Poisson's equation determines which physical quantity?**

Ans
- ✗ A. The magnetic field intensity
- ✗ B. The energy stored in a capacitor
- ✓ C. The potential function due to given charge density
- ✗ D. The resistance of a material

Question ID : **4410091416315**
Option 1 ID : **4410095593957**
Option 2 ID : **4410095593960**
Option 3 ID : **4410095593958**
Option 4 ID : **4410095593959**
Status : **Answered**
Chosen Option : **C**

Q.94 **Two capacitors of capacitance C_1 and C_2 are connected in series and charged so that each stores charge Q. They are then disconnected from the source and reconnected in parallel with opposite plate polarity (positive to positive, negative to negative). What happens to the total stored electrostatic energy?**

Ans
- ✓ A. It decreases
- ✗ B. It becomes zero
- ✗ C. It increases
- ✗ D. It remains the same as before

Question ID : **4410091529810**
Option 1 ID : **4410096042341**
Option 2 ID : **4410096042342**
Option 3 ID : **4410096042340**
Option 4 ID : **4410096042339**
Status : **Answered**
Chosen Option : **D**

Q.95 **If x(t) has an average value of 4, determine the average value of** $y(t) = x(2t - 3) + 5$.

Ans
- ✗ A. 5
- ✗ B. 2
- ✗ C. 4
- ✓ D. 9

Question ID : **4410091423619**
Option 1 ID : **4410095623311**
Option 2 ID : **4410095623309**
Option 3 ID : **4410095623310**
Option 4 ID : **4410095623312**
Status : **Answered**
Chosen Option : **D**

Q.96 In a boost converter operating in continuous mode, if the duty cycle increases, what happens to the output voltage?

Ans
- ✔ A. Output voltage increases non-linearly
- ✘ B. Output voltage follows linear relation with duty cycle
- ✘ C. Output voltage remains constant
- ✘ D. Output voltage decreases

Question ID : **4410091136581**
Option 1 ID : **4410094481551**
Option 2 ID : **4410094481553**
Option 3 ID : **4410094481552**
Option 4 ID : **4410094481550**
Status : **Answered**
Chosen Option : **A**

Q.97 Which of the following statements is/are correct regarding an RC phase shift oscillator?
S1: Two minimum RC networks are required in this circuit for oscillation.
S2: The circuit will oscillate at a frequency for which the phase shift of the network is 180°.

Ans
- ✔ A. Only S2
- ✘ B. S1 and S2
- ✘ C. Only S1
- ✘ D. Neither S1 nor S2

Question ID : **441009334542**
Option 1 ID : **4410091304122**
Option 2 ID : **4410091304125**
Option 3 ID : **4410091304123**
Option 4 ID : **4410091304124**
Status : **Answered**
Chosen Option : **B**

Q.98 Crystal oscillators are known for their_____ stability and _____ bandwidth.

Ans
- ✔ A. high ; narrow
- ✘ B. low ; narrow
- ✘ C. low ; wide
- ✘ D. high ; wide

Question ID : **4410091184928**
Option 1 ID : **4410094673817**
Option 2 ID : **4410094673815**
Option 3 ID : **4410094673814**
Option 4 ID : **4410094673816**
Status : **Answered**
Chosen Option : **D**

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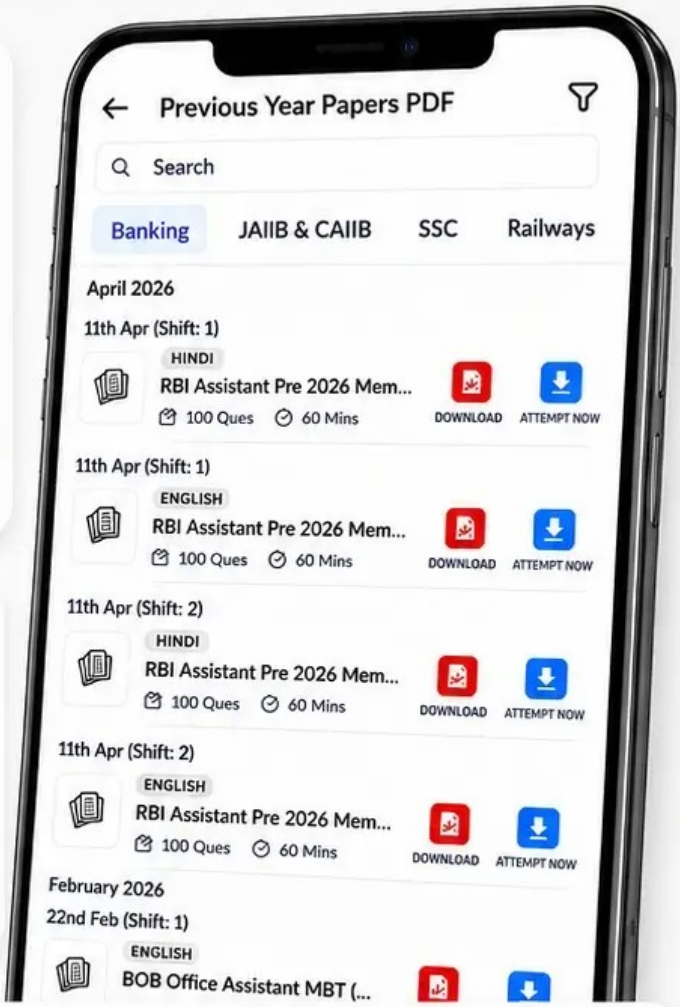

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Shital, SSC JE (Mech)


Nancy, UGC NET


Atul, SSC JE (ELCT)


Rahul, SSC JE (CIVIL)


Anand, SSC JE (ELCT)


Mohan, SSC JE (ELCT)


Saurabh, UGC NET


Ved, SSC JE (Mech)

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Q.99 Choose the correct option.

Statement 1: In a load-commutated chopper, the efficiency may become high for high-power, high-frequency applications due to high switching losses.
Statement 2: In a load-commutated chopper, the rating of freewheeling diode is subjected to twice the supply voltage.

Ans
✗ A. Both statements are false.
✗ B. Both statements are true.
✗ C. Statement 1 is true, but statement 2 is false.
✓ D. Statement 1 is false, but statement 2 is true.

Question ID : **4410091512693**
Option 1 ID : **4410095974821**
Option 2 ID : **4410095974820**
Option 3 ID : **4410095974818**
Option 4 ID : **4410095974819**
Status : **Answered**
Chosen Option : **D**

Q.100 The type number of a control system is defined as:

Ans
✗ A. the order of the system's characteristic equation
✗ B. the number of zeros at the origin in the open-loop transfer function
✓ C. the number of integrators (poles at the origin) in the open loop transfer function
✗ D. the degree of the numerator of the closed-loop transfer function

Question ID : **4410091308237**
Option 1 ID : **4410095164603**
Option 2 ID : **4410095164605**
Option 3 ID : **4410095164604**
Option 4 ID : **4410095164606**
Status : **Answered**
Chosen Option : **C**

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