



COAL INDIA LIMITED
(A Govt. of India Undertaking)
(A Maharatna Company)

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

Participant ID	
Participant Name	
Test Center Name	
School Test Date	24/08/2026
Test Time	3:00 PM - 6:00 PM
Subject	E and T

Section : Part 1 General Knowledge Awareness

Q.1	The 2026 FIFA World Cup saw a new generation of young stars emerge. Which Spanish teenager scored his first World Cup goal and was noted for his "304" celebration?
Ans	☐ A. Yan Diomande
	☐ B. Ibrahim Mbaye
	☒ C. Lamine Yamal
	☐ D. Gilberto Mora

Question ID :	4410092215521
Option 1 ID :	4410098718225
Option 2 ID :	4410098718224
Option 3 ID :	4410098718223
Option 4 ID :	4410098718222
Status :	Answered
Chosen Option :	B



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Palak, SSC CGL



Priti, UP TGT



Aniket, Bihar Stet



Shaurya, NTPC



Sarita, CTET



Gourav, NTPC



Sanni, NTPC



Abhishek, CTET



Sapna, IBPS Clerk

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Q.2	Which country ratified the UNESCO Global Convention on the Recognition of Qualifications concerning Higher Education on 12 February 2026?
Ans	A. Republic of Korea
	B. Zambia
	C. Uzbekistan
	D. Egypt

Question ID :	4410092215516
Option 1 ID :	4410098718205
Option 2 ID :	4410098718204
Option 3 ID :	4410098718202
Option 4 ID :	4410098718203
Status :	Answered
Chosen Option :	B

Q.3	Which Constitutional Amendment Act omitted the provision regarding "splits" (Paragraph 3) by a political party under the Tenth Schedule?
Ans	A. 91st Constitutional Amendment Act, 2003
	B. 97th Constitutional Amendment Act, 2011
	C. 92nd Constitutional Amendment Act, 2003
	D. 86th Constitutional Amendment Act, 2002

Question ID :	4410092215676
Option 1 ID :	4410098718845
Option 2 ID :	4410098718842
Option 3 ID :	4410098718843
Option 4 ID :	4410098718844
Status :	Answered
Chosen Option :	B

Q.4	The Hatti Gold Mines, one of India's oldest gold mining regions, are located in which Indian state?
Ans	A. Andhra Pradesh
	B. Telangana
	C. Maharashtra
	D. Karnataka

Question ID :	4410092215740
Option 1 ID :	4410098719099
Option 2 ID :	4410098719100
Option 3 ID :	4410098719101
Option 4 ID :	4410098719098
Status :	Answered
Chosen Option :	B

Q.5	The Indian Council of Medical Research (ICMR) received the Gold Award at the National Awards for e-Governance 2026 for which initiative?
Ans	A. ICMR-DATA B. ICMR-HEALTH C. ICMR-VIRUS

D. ICMR-MINDS

Question ID :	4410092215527
Option 1 ID :	4410098718249
Option 2 ID :	4410098718247
Option 3 ID :	4410098718246
Option 4 ID :	4410098718248
Status :	Answered
Chosen Option :	B

Q.6	In May 2026, the Indian women's recurve team won a gold medal at which international event?
Ans	A. Archery World Cup Stage 2 B. Asian Games 2026 C. Commonwealth Games 2026

D. World Archery Championships

Question ID :	4410092215530
Option 1 ID :	4410098718259
Option 2 ID :	4410098718258
Option 3 ID :	4410098718261
Option 4 ID :	4410098718260
Status :	Answered
Chosen Option :	B

Q.7	Which Union Territory is an archipelago consisting of 36 islands, including 12 atolls, three reefs, five submerged banks, and ten inhabited islands, located near the Malabar Coast of Kerala in the Arabian Sea?
Ans	A. Lakshadweep B. Neil Island C. Dadra and Nagar Haveli and Daman and Diu

D. Andaman and Nicobar Islands

Question ID :	4410092215734
Option 1 ID :	4410098719076
Option 2 ID :	4410098719075
Option 3 ID :	4410098719077
Option 4 ID :	4410098719074
Status :	Answered
Chosen Option :	B

Q.8	Which canal is one of the world's busiest shipping lanes and provides the shortest maritime route between Europe and the lands around the Indian Ocean and the western Pacific Ocean by connecting the Mediterranean Sea with the Red Sea?
Ans	☒ A. Suez Canal
	☒ B. Corinth Canal
	☒ C. Kiel Canal
	☒ D. Panama Canal

Question ID :	4410092215743
Option 1 ID :	4410098719110
Option 2 ID :	4410098719112
Option 3 ID :	4410098719113
Option 4 ID :	4410098719111
Status :	Answered
Chosen Option :	B

Q.9	What is meant by STAR topology in Local Area Network?
Ans	☒ A. Machines are connected to a central hub.
	☒ B. Machines are connected in a circular loop.
	☒ C. All machines are connected in a single line.
	☒ D. Wireless ad-hoc connections.

Question ID :	4410091024813
Option 1 ID :	4410094050908
Option 2 ID :	4410094050909
Option 3 ID :	4410094050907
Option 4 ID :	4410094050910
Status :	Answered
Chosen Option :	B

Q.10	Which type of forest is restricted to the heavy rainfall areas of the Western Ghats, the island groups of Lakshadweep, Andaman and Nicobar, the upper parts of Assam, and the Tamil Nadu coast?
Ans	☒ A. Tropical Deciduous Forests
	☒ B. Tropical Evergreen Forests
	☒ C. Thorn Forests and Scrubs
	☒ D. Montane Forests

Question ID :	4410092215731
Option 1 ID :	4410098719063
Option 2 ID :	4410098719062
Option 3 ID :	4410098719064
Option 4 ID :	4410098719065
Status :	Answered
Chosen Option :	B

Q.11	India's 45th UNESCO World Heritage property, inscribed in July 2026, is which of the following ancient Buddhist sites?	
Ans	A. Ajanta Caves B. Sarnath C. Sanchi D. Nalanda Mahavihara	
Question ID : 4410092215728 Option 1 ID : 4410098719051 Option 2 ID : 4410098719050 Option 3 ID : 4410098719052 Option 4 ID : 4410098719053 Status : Answered Chosen Option : B		
Q.12	The partition of Bengal, which triggered the Swadeshi Movement, was implemented in which year?	
Ans	A. 1903 B. 1909 C. 1905 D. 1911	
Question ID : 4410092215950 Option 1 ID : 4410098719934 Option 2 ID : 4410098719936 Option 3 ID : 4410098719935 Option 4 ID : 4410098719937 Status : Answered Chosen Option : B		
Q.13	Fly ash discharged from thermal power plants contaminates water bodies primarily through which of the following?	
Ans	A. Reduction in water temperature B. Addition of harmful microorganisms C. Leaching of metals D. Increase in BOD	
Question ID : 4410092215835 Option 1 ID : 4410098719480 Option 2 ID : 4410098719481 Option 3 ID : 4410098719478 Option 4 ID : 4410098719479 Status : Answered Chosen Option : B		

Question ID :	4410
Option 1 ID :	4410
Option 2 ID :	4410
Option 3 ID :	4410
Option 4 ID :	4410
Status :	Not Answered
Chosen Option :	--

Q.17	What is a key benefit of using computers in scientific research?	
Ans	☒ A. Collaborating through Internet-based virtual laboratories	
	☒ B. Viewing scientific experiments on recorded broadcasts	
	☒ C. Developing online marketplaces for scientific tools	
	☒ D. Performing lab work without any human presence	
Question ID : 441009262799 Option 1 ID : 4410091023793 Option 2 ID : 4410091023795 Option 3 ID : 4410091023794 Option 4 ID : 4410091023792 Status : Not Answered Chosen Option : --		

Q.18	Microsoft's \$17.5 billion investment in India, announced in December 2025, is notable for its focus on which key strategic pillar?	
Ans	☒ A. Establishing India's first private space launch facility	
	☒ B. Manufacturing low-cost smartphones for rural markets	
	☒ C. Acquisition of Indian fintech startups for global expansion	
	☒ D. Digital sovereignty, AI skilling, and hyperscale infrastructure	
Question ID : 4410092215537 Option 1 ID : 4410098718286 Option 2 ID : 4410098718287 Option 3 ID : 4410098718288 Option 4 ID : 4410098718289 Status : Not Answered Chosen Option : --		

Q.19	Which of the following was NOT listed as a core pillar (Sutras) of the AI Impact Summit 2026?	
Ans	☒ A. Profit	
	☒ B. Planet	
	☒ C. Progress	
	☒ D. People	
Question ID : 4410092215535 Option 1 ID : 4410098718280 Option 2 ID : 4410098718279 Option 3 ID : 4410098718281 Option 4 ID : 4410098718278 Status : Not Answered Chosen Option : --		

Q.20	Which landmark Supreme Court judgment established the 'Basic Structure Doctrine', holding that Parliament's amending power under Article 368 cannot destroy the Constitution's basic features?	
Ans	✔ A. Kesavananda Bharati v. State of Kerala ✘ B. Minerva Mills v. Union of India ✘ C. Indira Nehru Gandhi v. Raj Narain ✘ D. Golaknath v. State of Punjab	Question ID : 4410092339442 Option 1 ID : 4410099199865 Option 2 ID : 4410099199866 Option 3 ID : 4410099199867 Option 4 ID : 4410099199864 Status : Not Answered Chosen Option : --
Q.21	Which ancient text was the famed Sanskrit grammarian Pāṇini known for composing?	
Ans	✔ A. Aṣṭādhyāyī ✘ B. Indica ✘ C. Arthashastra ✘ D. Rajatarangini	Question ID : 4410092215629 Option 1 ID : 4410098718654 Option 2 ID : 4410098718656 Option 3 ID : 4410098718655 Option 4 ID : 4410098718657 Status : Not Answered Chosen Option : --
Q.22	Which scheme was launched in December 2000 to provide all-weather road connectivity to eligible, unconnected rural habitations across India?	
Ans	✘ A. Viksit Bharat- G RAM G Act ✘ B. Rashtriya Gram Swaraj Abhiyan (RGSA) ✘ C. National Rural Livelihood Mission ✔ D. Pradhan Mantri Gram Sadak Yojana (PMGSY)	Question ID : 4410092215685 Option 1 ID : 4410098718878 Option 2 ID : 4410098718880 Option 3 ID : 4410098718881 Option 4 ID : 4410098718879 Status : Not Answered Chosen Option : --

Q.23	The Indian Ports Act, 2025, replaces which earlier legislation to introduce modern and contemporary regulations for Indian ports?	
Ans	A. Indian Ports Act, 1958 B. Indian Ports Act, 1963 C. Indian Ports Act, 1908 D. Indian Ports Act, 1991	

Question ID :	4410092215832
Option 1 ID :	4410098719467
Option 2 ID :	4410098719468
Option 3 ID :	4410098719469
Option 4 ID :	4410098719466
Status :	Not Answered
Chosen Option :	--

Q.24	Which specific provision was embedded in the Coal Mine/Block Production and Development Agreements (CMDPAs) executed with successful bidders for four coal mines in April 2026?	
Ans	A. Self-reliance provisions B. Energy transition provisions C. Coal reserves provisions D. Underground Coal Gasification provisions	

Question ID :	4410092215617
Option 1 ID :	4410098718608
Option 2 ID :	4410098718606
Option 3 ID :	4410098718609
Option 4 ID :	4410098718607
Status :	Not Answered
Chosen Option :	--

Q.25	Who is credited with the discovery of penicillin, the first widely used antibiotic, in 1928?	
Ans	A. Isaac Newton B. Alexander Fleming C. Marie Curie D. Louis Pasteur	

Question ID :	4410092339427
Option 1 ID :	4410099199811
Option 2 ID :	4410099199810
Option 3 ID :	4410099199809
Option 4 ID :	4410099199808
Status :	Not Answered
Chosen Option :	--

Section : Part 2 Numerical Ability

Q.1	A cylindrical metal rod of radius 5 cm and height 180 cm is melted and recast into a solid sphere. What is the radius (in cm) of the sphere formed?
Ans	☒ A. 22
	☒ B. 21
	☒ C. 12
	☒ D. 15

Question ID :	4410092200360
Option 1 ID :	4410098658614
Option 2 ID :	4410098658615
Option 3 ID :	4410098658612
Option 4 ID :	4410098658613
Status :	Answered
Chosen Option :	D

Q.2	तीन क्रमिक प्राकृत संख्याओं के घनों का योग 99 है। अनुक्रम में सबसे छोटी संख्या ज्ञात कीजिए।
Ans	☒ A. 3
	☒ B. 1
	☒ C. 4
	☒ D. 2

Question ID :	4410092200324
Option 1 ID :	4410098658469
Option 2 ID :	4410098658468
Option 3 ID :	4410098658471
Option 4 ID :	4410098658470
Status :	Not Answered
Chosen Option :	--

Q.3	11 संख्याओं का औसत 110 है। यदि पहली 6 संख्याएँ 40, 32, 43, 84, 103 और 78 हैं, तो शेष संख्याओं का औसत ज्ञात कीजिए।
Ans	☒ A. 166
	☒ B. 160
	☒ C. 157
	☒ D. 161

Question ID :	441009580519
Option 1 ID :	4410092277202
Option 2 ID :	4410092277204
Option 3 ID :	4410092277205
Option 4 ID :	4410092277203
Status :	Answered
Chosen Option :	A

Q.4	The price of petrol per litre increases by 90%. If the total expenditure on petrol increases by only 71%, what percentage of the initial consumption is the new petrol consumption?
Ans	A. 96% B. 90% C. 94% D. 85%

Question ID :	441009560989
Option 1 ID :	4410092199225
Option 2 ID :	4410092199223
Option 3 ID :	4410092199224
Option 4 ID :	4410092199226
Status :	Answered
Chosen Option :	C

Q.5	एक विक्रेता ने एक रुपये में 35 चॉकलेट बेची, जिससे उसने 60% का लाभ प्राप्त किया। उसने एक रुपये में कितनी चॉकलेट खरीदी थी?
Ans	A. 62 B. 58 C. 60 D. 56

Question ID :	441009574944
Option 1 ID :	4410092254899
Option 2 ID :	4410092254897
Option 3 ID :	4410092254898
Option 4 ID :	4410092254896
Status :	Not Answered
Chosen Option :	--

Q.6	एक कंपनी 7 cm त्रिज्या वाली ठोस गोलाकार स्टील की गेंदों का निर्माण करती है। यदि ऐसी 27 गेंदों को पिघलाकर एक ठोस गोले में ढाला जाए, तो नए गोले की त्रिज्या (cm में) कितनी होगी?
Ans	A. 18 B. 23 C. 21 D. 25

Question ID :	4410092200367
Option 1 ID :	4410098658640
Option 2 ID :	4410098658642
Option 3 ID :	4410098658641
Option 4 ID :	4410098658643
Status :	Answered
Chosen Option :	C

Q.7	The product of two numbers is 12288 and their H.C.F is 64. Find their L.C.M.
Ans	✓ A. 192 ✗ B. 199 ✗ C. 200 ✗ D. 185

Question ID :	441009524745
Option 1 ID :	4410092054399
Option 2 ID :	4410092054402
Option 3 ID :	4410092054401
Option 4 ID :	4410092054400
Status :	Answered
Chosen Option :	B

Q.8	दीपा एक बैंक से 10% वार्षिक साधारण ब्याज की दर पर ₹8,620 उधार लेती है और तीन बराबर वार्षिक किस्तों में भुगतान करने के लिए सहमत हो जाती है। प्रत्येक किस्त का मूल्य (निकटतम रुपये तक पूर्णांकित) ज्ञात कीजिए।
Ans	✗ A. ₹3,442 ✗ B. ₹3,200 ✗ C. ₹3,542 ✓ D. ₹3,396

Question ID :	4410092200318
Option 1 ID :	4410098658446
Option 2 ID :	4410098658444
Option 3 ID :	4410098658447
Option 4 ID :	4410098658445
Status :	Answered
Chosen Option :	A

Q.9	दो पैकेटों के भार का अनुपात 3:5 है। यदि हल्के पैकेट का भार 12 kg है, तो भारी पैकेट का भार कितना होगा?
Ans	✗ A. 24 kg ✓ B. 20 kg ✗ C. 18 kg ✗ D. 15 kg

Question ID :	4410092200333
Option 1 ID :	4410098658504
Option 2 ID :	4410098658507
Option 3 ID :	4410098658506
Option 4 ID :	4410098658505
Status :	Answered
Chosen Option :	B

Q.10 The sum of the present age of Naina and three times the present age of Bhawna is 44 years. Naina's father is presently 5 times as old as Naina, while Bhawna's brother is 4 years older than Bhawna. If the sum of the present ages of Naina's father and Bhawna's brother is 56 years, then what is the sum of the present ages (in years) of Bhawna and Naina?

- Ans ☒ A. 18
- ☒ B. 27
- ☒ C. 20
- ☒ D. 29

Question ID :	4410091219405
Option 1 ID :	4410094811044
Option 2 ID :	4410094811046
Option 3 ID :	4410094811043
Option 4 ID :	4410094811045
Status :	Answered
Chosen Option :	B

Q.11 Anil tosses three identical coins and agrees to donate ₹50 to charity if at least two heads appear. What is the probability that he will donate ₹50?

- Ans ☒ A. $\frac{1}{2}$
- ☒ B. $\frac{5}{8}$
- ☒ C. $\frac{3}{8}$
- ☒ D. $\frac{1}{4}$

Question ID :	4410092200355
Option 1 ID :	4410098658592
Option 2 ID :	4410098658594
Option 3 ID :	4410098658593
Option 4 ID :	4410098658595
Status :	Answered
Chosen Option :	C

Q.12 A bowl is in the shape of a hemisphere with a diameter of 12 cm. What is the maximum volume of soup it can hold (in cm³)?
(Use $\pi = \frac{22}{7}$ and round off your answer to two decimal places

- Ans ☒ A. 339.29
- ☒ B. 678.58
- ☒ C. 904.78
- ☒ D. 452.57

Question ID :	4410092200358
Option 1 ID :	4410098658605
Option 2 ID :	4410098658604
Option 3 ID :	4410098658607
Option 4 ID :	4410098658606
Status :	Answered
Chosen Option :	B

Q.13 The value of $\left(\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30}\right)$ is:

- Ans ☒ A. $\frac{7}{6}$
- ☒ B. $\frac{2}{3}$
- ☒ C. $\frac{3}{10}$
- ☒ D. $\frac{5}{6}$

Question ID :	4410092200328
Option 1 ID :	4410098658485
Option 2 ID :	4410098658486
Option 3 ID :	4410098658487
Option 4 ID :	4410098658484
Status :	Answered
Chosen Option :	D

Q.14	In a school, the ratio of the number of boys to girls is 5:3. If 20 more girls join and 10 boys leave, the new ratio becomes 3:2. What was the original number of girls?															
Ans	A. 200 B. 280 C. 240 D. 180															
		<table><tr><td>Question ID :</td><td>4410092200337</td></tr><tr><td>Option 1 ID :</td><td>4410098658521</td></tr><tr><td>Option 2 ID :</td><td>4410098658523</td></tr><tr><td>Option 3 ID :</td><td>4410098658522</td></tr><tr><td>Option 4 ID :</td><td>4410098658520</td></tr><tr><td>Status :</td><td>Answered</td></tr><tr><td>Chosen Option :</td><td>D</td></tr></table>	Question ID :	4410092200337	Option 1 ID :	4410098658521	Option 2 ID :	4410098658523	Option 3 ID :	4410098658522	Option 4 ID :	4410098658520	Status :	Answered	Chosen Option :	D
Question ID :	4410092200337															
Option 1 ID :	4410098658521															
Option 2 ID :	4410098658523															
Option 3 ID :	4410098658522															
Option 4 ID :	4410098658520															
Status :	Answered															
Chosen Option :	D															

Q.15	The monthly electricity bills for four months are ₹1,200, ₹1,500, ₹1,100, and ₹1,700. What is the average monthly bill?															
Ans	A. ₹1,200 B. ₹1,375 C. ₹1,400 D. ₹1,500															
		<table><tr><td>Question ID :</td><td>4410092200316</td></tr><tr><td>Option 1 ID :</td><td>4410098658437</td></tr><tr><td>Option 2 ID :</td><td>4410098658438</td></tr><tr><td>Option 3 ID :</td><td>4410098658436</td></tr><tr><td>Option 4 ID :</td><td>4410098658439</td></tr><tr><td>Status :</td><td>Answered</td></tr><tr><td>Chosen Option :</td><td>B</td></tr></table>	Question ID :	4410092200316	Option 1 ID :	4410098658437	Option 2 ID :	4410098658438	Option 3 ID :	4410098658436	Option 4 ID :	4410098658439	Status :	Answered	Chosen Option :	B
Question ID :	4410092200316															
Option 1 ID :	4410098658437															
Option 2 ID :	4410098658438															
Option 3 ID :	4410098658436															
Option 4 ID :	4410098658439															
Status :	Answered															
Chosen Option :	B															

Q.16	A truck covers four equal distances at speeds of 25 km/h, 50 km/h, 75 km/h, and 100 km/h. What is the harmonic mean speed?															
Ans	A. 62.5 km/h B. 55 km/h C. 48 km/h D. 60 km/h															
		<table><tr><td>Question ID :</td><td>4410092200343</td></tr><tr><td>Option 1 ID :</td><td>4410098658545</td></tr><tr><td>Option 2 ID :</td><td>4410098658547</td></tr><tr><td>Option 3 ID :</td><td>4410098658546</td></tr><tr><td>Option 4 ID :</td><td>4410098658544</td></tr><tr><td>Status :</td><td>Answered</td></tr><tr><td>Chosen Option :</td><td>B</td></tr></table>	Question ID :	4410092200343	Option 1 ID :	4410098658545	Option 2 ID :	4410098658547	Option 3 ID :	4410098658546	Option 4 ID :	4410098658544	Status :	Answered	Chosen Option :	B
Question ID :	4410092200343															
Option 1 ID :	4410098658545															
Option 2 ID :	4410098658547															
Option 3 ID :	4410098658546															
Option 4 ID :	4410098658544															
Status :	Answered															
Chosen Option :	B															

Q.17	If a loan of ₹5,000 is repaid after 2 years at 12% per annum, compounded semi-annually, what is the total amount to be paid (rounded off to two decimal places)?
Ans	✖ A. ₹6,145.92 ✖ B. ₹6,200.00 ✖ C. ₹6,000.00 ✔ D. ₹6,312.38

Question ID :	4410092200322
Option 1 ID :	4410098658462
Option 2 ID :	4410098658463
Option 3 ID :	4410098658461
Option 4 ID :	4410098658460
Status :	Answered
Chosen Option :	B

Q.18	What is the value of $3 \div [(8 - 5) \div \{(4 - 2) \div 2\}]$?
Ans	✖ A. -2 ✖ B. 2 ✔ C. 1 ✖ D. -1

Question ID :	4410092200331
Option 1 ID :	4410098658499
Option 2 ID :	4410098658498
Option 3 ID :	4410098658497
Option 4 ID :	4410098658496
Status :	Answered
Chosen Option :	C

Q.19	A machine can produce 500 units in 5 hours. If another similar machine works at the same rate, how many hours will it take both machines working together to produce 1000 units?
Ans	✔ A. 5 hours ✖ B. 10 hours ✖ C. 12 hours ✖ D. 7 hours

Question ID :	4410092200338
Option 1 ID :	4410098658525
Option 2 ID :	4410098658526
Option 3 ID :	4410098658527
Option 4 ID :	4410098658524
Status :	Answered
Chosen Option :	A

Q.20	A team of 5 workers can complete a project in 12 days, and another team of 4 workers can complete the same project in 20 days. If the first team works for the first 6 days and then the second team takes over, in how many total days will the project be completed?
Ans	✓ A. 16 ✗ B. 20 ✗ C. 18 ✗ D. 22

Question ID :	4410092200344
Option 1 ID :	4410098658549
Option 2 ID :	4410098658551
Option 3 ID :	4410098658550
Option 4 ID :	4410098658548
Status :	Answered
Chosen Option :	A

Q.21	A car covers three equal distances of 60 km each at speeds of 20 km/h, 30 km/h, and 60 km/h, respectively. What is the car's average speed for the entire 180 km journey?
Ans	✓ A. 30 km/h ✗ B. 24 km/h ✗ C. 36 km/h ✗ D. 40 km/h

Question ID :	4410092200349
Option 1 ID :	4410098658568
Option 2 ID :	4410098658569
Option 3 ID :	4410098658570
Option 4 ID :	4410098658571
Status :	Answered
Chosen Option :	B

Q.22 A person walks a distance of 24 km in 6 hours. How much distance will the person walk in 9 hours at the same speed?

- Ans ☒ A. 36 km
- ☒ B. 30 km
- ☒ C. 32 km
- ☒ D. 40 km

Question ID :	4410092200352
Option 1 ID :	4410098658580
Option 2 ID :	4410098658582
Option 3 ID :	4410098658583
Option 4 ID :	4410098658581
Status :	Answered
Chosen Option :	A

Q.23 A right prism with a triangular base has side lengths of 6 cm, 8 cm, and 10 cm, and the prism's height is 12 cm. What is the total volume of the prism?

- Ans ☒ A. 288 cm³
- ☒ B. 360 cm³
- ☒ C. 480 cm³
- ☒ D. 576 cm³

Question ID :	4410092200362
Option 1 ID :	4410098658623
Option 2 ID :	4410098658622
Option 3 ID :	4410098658620
Option 4 ID :	4410098658621
Status :	Answered
Chosen Option :	B

Q.24 The initial population of a town is 16650. It increases by 25% and 60% in two successive years but decreases by 12% in the third year. What is the population of the town at the end of the third year?

- Ans ☒ A. 29304
- ☒ B. 29301
- ☒ C. 29292
- ☒ D. 29299

Question ID :	441009537214
Option 1 ID :	4410092104252
Option 2 ID :	4410092104254
Option 3 ID :	4410092104255
Option 4 ID :	4410092104253
Status :	Answered
Chosen Option :	C

Q.25 A shopkeeper claims that he sells rock salt at ₹24 per kg, which costs him ₹35 per kg. But he gives 508 g instead of 889 g. What is his percentage profit?

- Ans ☒ A. 20%
- ☐ B. 21%
- ☐ C. 17%
- ☐ D. 19%

Question ID :	441009565319
Option 1 ID :	4410092216396
Option 2 ID :	4410092216399
Option 3 ID :	4410092216398
Option 4 ID :	4410092216397
Status :	Answered
Chosen Option :	B

Section : Part 3 Reasoning

Q.1 In a certain code language,
'before the event' is coded as 'pk tb aj'
'the best buy' is coded as 'ju pk sz'
'buy before tomorrow' is coded as 'aj cx ju'.
(All the codes are two-letter codes only.)
What is the code for 'best event'?

- Ans ☐ A. pk cx
- ☒ B. tb sz
- ☐ C. sz aj
- ☐ D. ju pk

Question ID :	4410092226314
Option 1 ID :	4410098760582
Option 2 ID :	4410098760583
Option 3 ID :	4410098760581
Option 4 ID :	4410098760584
Status :	Answered
Chosen Option :	C

Q.2	M is the sister of H. H is the brother of D. W is the father of X. X is the son of D. How is M related to W?
Ans	A. Mother
	B. Sister
	C. Wife's mother
	D. Wife's sister

Question ID :	4410092226681
Option 1 ID :	4410098762010
Option 2 ID :	4410098762009
Option 3 ID :	4410098762012
Option 4 ID :	4410098762011
Status :	Answered
Chosen Option :	B

Q.3	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 decide the appropriate answer. Five storage units – Amber, Bronze, Crystal, Diamond and Emerald – are arranged from left to right. Which storage unit is at the centre position? (I) Crystal is to the right of Bronze but to the left of Diamond. (II) Amber is at the extreme left, Bronze is immediately to the right of Amber and Emerald is at the extreme right.
Ans	A. Both statements I and II together are NOT 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 (and not statement I alone or statement II alone) are sufficient to answer the question

Question ID :	4410092226443
Option 1 ID :	4410098761100
Option 2 ID :	4410098761098
Option 3 ID :	4410098761099
Option 4 ID :	4410098761097
Status :	Answered
Chosen Option :	B

Q.4	If 7 July 2000 is a Friday, then what will be the day of the week on 22 October 2009? 2827
Ans	✓ A. Thursday ✗ B. Tuesday ✗ C. Monday ✗ D. Wednesday

Question ID :	441009723297
Option 1 ID :	4410092846943
Option 2 ID :	4410092846941
Option 3 ID :	4410092846940
Option 4 ID :	4410092846942
Status :	Answered
Chosen Option :	C

Q.5	17 is related to 196 following a certain logic. Following the same logic, 21 is related to 212. To which of the following is 30 related, following the same logic? (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
Ans	✗ A. 246 ✓ B. 248 ✗ C. 244 ✗ D. 247

Question ID :	4410092226696
Option 1 ID :	4410098762070
Option 2 ID :	4410098762072
Option 3 ID :	4410098762069
Option 4 ID :	4410098762071
Status :	Answered
Chosen Option :	C

Q.6	What should come in place of the question mark (?) in the following series based on the English alphabetical order? UXP SVN QTL ORJ ? 11872
Ans	✓ A. MPH ✗ B. PMH ✗ C. PMG ✗ D. MPG

Question ID :	441009732342
Option 1 ID :	4410092883120
Option 2 ID :	4410092883122
Option 3 ID :	4410092883123
Option 4 ID :	4410092883121
Status :	Answered
Chosen Option :	A

Q.7	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 conclusion(s) logically follow(s) from the statements. Statements: All chairs are tables. Some chairs are beds. Conclusions: (I) Some beds are tables. (II) Some beds are chairs.
Ans	✗ A. Neither conclusion (I) nor (II) follows. ✓ B. Both conclusions (I) and (II) follow. ✗ C. Only conclusion (II) follows. ✗ D. Only conclusion (I) follows.

Question ID :	44100928281
Option 1 ID :	441009112658
Option 2 ID :	441009112659
Option 3 ID :	441009112657
Option 4 ID :	441009112656
Status :	Answered
Chosen Option :	C

Q.8	LHFK is related to RNLQ in a certain way based on the English alphabetical order. In the same way, NJHM is related to TPNS. To which of the given options is PLJO related, following the same logic?
Ans	A. RVPU
	B. VRUP
	C. RVUP
	D. VRPU

Question ID :	441009252174
Option 1 ID :	441009982622
Option 2 ID :	441009982621
Option 3 ID :	441009982623
Option 4 ID :	441009982620
Status :	Answered
Chosen Option :	D

Q.9	Refer to the following letter, number, symbol series and answer the question. (NOTE: All numbers are single digit numbers only) (Left) V T & @ X 1 M * & % Q 5 3 U © © 7 N € # P U (Right) If all the letters are dropped from the series, which of the following will be fifth from the left? 11909
Ans	A. &
	B. %
	C. 5
	D. ©

Question ID :	441009701137
Option 1 ID :	4410092758578
Option 2 ID :	4410092758579
Option 3 ID :	4410092758581
Option 4 ID :	4410092758580
Status :	Answered
Chosen Option :	A

Q.10	Seven boxes, C, H, A, I, R, E and D, are kept one over the other but not necessarily in the same order. D is kept second from the bottom. Only three boxes are kept between D and I. R is kept at one of the positions below D. Only E is kept between I and H. C is kept at one of the positions above I. How many boxes are kept between A and I?
Ans	A. Four
	B. Three
	C. Two
	D. One

Question ID :	4410091526435
Option 1 ID :	4410096028857
Option 2 ID :	4410096028856
Option 3 ID :	4410096028855
Option 4 ID :	4410096028854
Status :	Answered
Chosen Option :	B

Q.11	Select the option that represents the correct order of the given words as they would appear in an English dictionary. Belief Believe Bell Belly Belong
Ans	A. 12345
	B. 31425
	C. 32145
	D. 31254

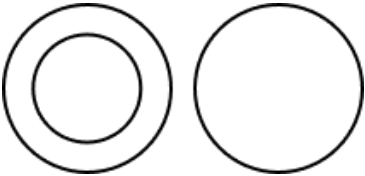
Question ID :	441009181673
Option 1 ID :	441009718195
Option 2 ID :	441009718197
Option 3 ID :	441009718198
Option 4 ID :	441009718196
Status :	Answered
Chosen Option :	C

Q.12	A, B, C, D, W, X and Y are sitting around a circular table, facing the centre of the table. Y is the immediate neighbour of both A and C. C sits third to the left of X. B sits to the immediate left of X. D is not an immediate neighbor of C. Who sits third to the left of W?	
Ans	A. D B. X C. C D. A	
Question ID : 441009809413 Option 1 ID : 4410093191777 Option 2 ID : 4410093191778 Option 3 ID : 4410093191776 Option 4 ID : 4410093191775 Status : Answered Chosen Option : D		
Q.13	If 2 is added to each even digit and 3 is subtracted from each odd digit in the number 5394726, how many digits will appear more than once in the new number thus formed?	
Ans	A. None B. One C. Three D. Two	
Question ID : 441009550869 Option 1 ID : 4410092158790 Option 2 ID : 4410092158791 Option 3 ID : 4410092158793 Option 4 ID : 4410092158792 Status : Answered Chosen Option : B		

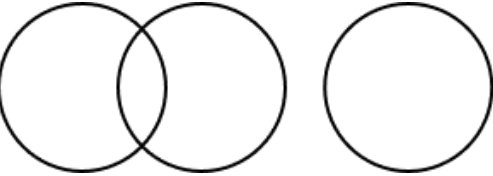
Q.14 Select the Venn diagram that best illustrates the relationship between the following classes.
Reptiles, Frogs, Amphibians

Ans

✓ A.



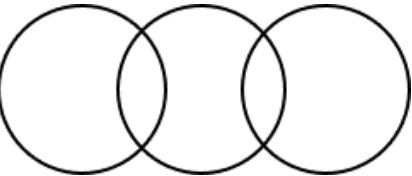
✗ B.



✗ C.



✗ D.



Question ID : 4410092226322

Option 1 ID : 4410098760615

Option 2 ID : 4410098760616

Option 3 ID : 4410098760613

Option 4 ID : 4410098760614

Status : Answered

Chosen Option : A

Q.15	An accurate clock shows 7:40 am. By how many degrees will the hour hand rotate when the clock shows 5:20 pm?
Ans	A. 260° B. 250° C. 280° D. 290°

Question ID :	4410092226678
Option 1 ID :	4410098761998
Option 2 ID :	4410098761997
Option 3 ID :	4410098761999
Option 4 ID :	4410098762000
Status :	Answered
Chosen Option :	A

Q.16	इस प्रश्न में, एक कथन के बाद I और II द्वारा क्रमांकित दो कार्यवाइयां दी गई हैं। आपको कथन में दी गई सभी बातों को सत्य मानना है और कथन में दी गई जानकारी के आधार पर तय करना है कि कौन-सी कार्यवाइयां तार्किक रूप से अनुसरण करती हैं। कथन: हाल ही में हुए एक सर्वेक्षण में पाया गया है कि शहर M में सार्वजनिक परिवहन का उपयोग करने वाले लोगों की संख्या में भारी गिरावट आई है, जिससे यातायात जाम और प्रदूषण में वृद्धि हुई है। कार्यवाई: I. सरकार को सार्वजनिक परिवहन के किराए कम करने चाहिए और सेवाओं की आवृत्ति में सुधार करना चाहिए। II. निजी वाहनों के प्रवेश शुल्क में वृद्धि की जानी चाहिए।
Ans	A. केवल I अनुसरण करती है B. न तो I और न ही II अनुसरण करती है C. I और II दोनों अनुसरण करती हैं D. केवल II अनुसरण करती है

Question ID :	4410091207071
Option 1 ID :	4410094761812
Option 2 ID :	4410094761811
Option 3 ID :	4410094761810
Option 4 ID :	4410094761813
Status :	Answered
Chosen Option :	C

Q.17

Refer to the following letter, symbol series and answer the question. Counting to be done from left to right only.
(Left) % / C C Q & & Y R ? @ O P G & U X V * ^ Z R V # (Right)
How many such letters are there each of which is immediately preceded by a symbol and also immediately followed by a symbol?8783

Ans

✔ A. None

✘ B. Three

✘ C. Two

✘ D. One

Question ID :

441009782645

Option 1 ID :

4410093084583

Option 2 ID :

4410093084586

Option 3 ID :

4410093084585

Option 4 ID :

4410093084584

Status :

Answered

Chosen Option :

A

Q.18

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 4?

6

1

4

5

1

2

Ans

✘ A. 6

✔ B. 2

✘ C. 5

✘ D. 1

Question ID :

4410092260310

Option 1 ID :

4410098896297

Option 2 ID :

4410098896295

Option 3 ID :

4410098896296

Option 4 ID :

4410098896294

Status :

Answered

Chosen Option :

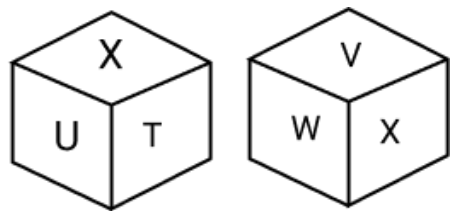
B

Q.19 C, O, R, P and E have different heights. C is taller than R. Only E is shorter than P. O is taller than C. How many people are taller than R?

- Ans ☒ A. Two
- ☐ B. Three
- ☐ C. Four
- ☐ D. One

Question ID :	4410091646957
Option 1 ID :	4410096504094
Option 2 ID :	4410096504095
Option 3 ID :	4410096504096
Option 4 ID :	4410096504093
Status :	Answered
Chosen Option :	A

Q.20 Six letters S, T, U, V, W and X are written on different faces of a dice. Two positions of this dice are shown in the figure. Find the letter on the face opposite to V.



- Ans ☐ A. W
- ☒ B. U
- ☐ C. T
- ☐ D. S

Question ID :	4410092260306
Option 1 ID :	4410098908806
Option 2 ID :	4410098908804
Option 3 ID :	4410098908805
Option 4 ID :	4410098908803
Status :	Answered
Chosen Option :	B

Q.21	What should come in place of '?' in the given series? 11 20 38 65 101 ?
Ans	A. 148 B. 147 C. 146 D. 145

Question ID :	4410091201828
Option 1 ID :	4410094741097
Option 2 ID :	4410094741096
Option 3 ID :	4410094741095
Option 4 ID :	4410094741094
Status :	Answered
Chosen Option :	C

Q.22	Seven boxes P, I, R, A, T, E and S are kept one over the other but not necessarily in the same order. No box is kept above R. Only two boxes are kept between P and E. P is kept immediately below R. Only A is kept below I. S is not kept immediately above E. How many boxes are kept between T and A? 3163
Ans	A. Three B. One C. Four D. Two

Question ID :	441009709332
Option 1 ID :	4410092791301
Option 2 ID :	4410092791299
Option 3 ID :	4410092791302
Option 4 ID :	4410092791300
Status :	Answered
Chosen Option :	B

Q.23 Based on the English alphabetical order, three of the following four 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. MIF

B. QMJ

C. TPM

D. OLP

Question ID :	441009368170
Option 1 ID :	4410091438652
Option 2 ID :	4410091438651
Option 3 ID :	4410091438650
Option 4 ID :	4410091438653
Status :	Answered
Chosen Option :	D

Q.24 दिवेश बिंदु A से ड्राइव करना शुरू करता है और पूरब की ओर 7 km ड्राइव करता है। फिर वह दाएँ मुड़ता है और 5 km ड्राइव करता है। वह फिर से दाएँ मुड़ता है और 2 km ड्राइव करता है। फिर वह बाएँ मुड़ता है और 3 km ड्राइव करता है। अंततः वह दाएँ मुड़ता है और बिंदु B तक पहुँचने के लिए 5 km ड्राइव करता है। बिंदु A तक पुनः पहुँचने के लिए उसे कितनी दूर (न्यूनतम दूरी) और किस दिशा में ड्राइव करना चाहिए? (जब तक कि निर्दिष्ट न किया जाए, सभी मोड़ केवल 90-डिग्री के मोड़ हैं।)

- Ans
- A. 7 km, उत्तर की ओर

B. 8 km, उत्तर की ओर

C.
5 km, उत्तर की ओर

D.
8 km, पश्चिम की ओर

Question ID :	441009732930
Option 1 ID :	4410092885472
Option 2 ID :	4410092885473
Option 3 ID :	4410092885475
Option 4 ID :	4410092885474
Status :	Answered
Chosen Option :	D

Q.25	What should come in place of the question mark (?) in the given series? 208 218 227 235 242 ?
Ans	✔ A. 248
	✘ B. 254
	✘ C. 252
	✘ D. 251

Question ID :	441009281552
Option 1 ID :	4410091094095
Option 2 ID :	4410091094097
Option 3 ID :	4410091094096
Option 4 ID :	4410091094094
Status :	Answered
Chosen Option :	A

Section : Part 4 General English

Q.1	Choose the correct direct speech for the reported sentence. He asked if I had seen his book.
Ans	✘ A. He asked, "Did you see my book?"
	✘ B. He asked, "Are you seeing my book?"
	✔ C. He asked, "Have you seen my book?"
	✘ D. He asked, "Will you see my book?"

Question ID :	4410092220603
Option 1 ID :	4410098738078
Option 2 ID :	4410098738080
Option 3 ID :	4410098738081
Option 4 ID :	4410098738079
Status :	Answered
Chosen Option :	B

Q.2	Rearrange the following segments to form a coherent statement. (A) the research findings were significant (B) despite the limited sample size (C) suggesting new avenues for exploration (D) according to the committee's report
Ans	✓ A. BADC ✗ B. DABC ✗ C. CABD ✗ D. ACDB

Question ID :	4410092230800
Option 1 ID :	4410098776666
Option 2 ID :	4410098776664
Option 3 ID :	4410098776665
Option 4 ID :	4410098776663
Status :	Answered
Chosen Option :	B

Q.3	Complete the given sentence, choosing your answer from the options provided. The jury reached _____ verdict after hours of deliberation.
Ans	✗ A. their ✗ B. her ✗ C. his ✓ D. its

Question ID :	4410091645540
Option 1 ID :	4410096498691
Option 2 ID :	4410096498693
Option 3 ID :	4410096498692
Option 4 ID :	4410096498690
Status :	Answered
Chosen Option :	B

Q.4	Which one word best substitutes the underlined phrase? Krishna is respected worldwide because he is a <u>person who supports a cause without personal gain</u> .
Ans	✔ A. Altruist ✘ B. Iconoclast ✘ C. Philanderer ✘ D. Pragmatist

Question ID :	4410092220882
Option 1 ID :	4410098739176
Option 2 ID :	4410098739177
Option 3 ID :	4410098739174
Option 4 ID :	4410098739175
Status :	Answered
Chosen Option :	B

Q.5	In the given question, a statement divided into segments is provided. Rearrange all the segments to form a coherent statement. about the proposal (P) / no sooner had the meeting (Q) / than several members (R) / begun officially (S) / raised important concerns (T)
Ans	✘ A. QRTSP ✘ B. RSTQP ✔ C. QSRTP ✘ D. PQRST

Question ID :	4410092221187
Option 1 ID :	4410098740383
Option 2 ID :	4410098740385
Option 3 ID :	4410098740384
Option 4 ID :	4410098740382
Status :	Answered
Chosen Option :	B

Q.6	Choose the most appropriate option to fill in the given blanks. ___ Nile is longer than ___ Amazon, but both are important rivers.
Ans	A. A / the
	B. The / an
	C. A / a
	D. The / the

Question ID :	4410091418354
Option 1 ID :	4410095602342
Option 2 ID :	4410095602341
Option 3 ID :	4410095602339
Option 4 ID :	4410095602340
Status :	Answered
Chosen Option :	B

Q.7	Select the most appropriate synonym of the word 'Benevolent' from the given sentence. Sentence: His altruistic endowment to the beleaguered institution ensured scholarships for dozens of impecunious scholars.
Ans	A. impecunious
	B. scholars
	C. endowment
	D. altruistic

Question ID :	441009289857
Option 1 ID :	4410091126376
Option 2 ID :	4410091126377
Option 3 ID :	4410091126374
Option 4 ID :	4410091126375
Status :	Answered
Chosen Option :	B

Q.8	Select the most appropriate idiom that can substitute the underlined segment in the given sentence. By the time the bank installed stronger security protocols, millions had already been lost to fraud; it had clearly <u>reacted far too late to prevent the damage</u> .
Ans	✔ A. locked the stable door after the horse had bolted ✖ B. took the wind out of their sails ✖ C. put the cart before the horse ✖ D. bit off more than they could chew

Question ID :	4410092221197
Option 1 ID :	4410098740424
Option 2 ID :	4410098740422
Option 3 ID :	4410098740423
Option 4 ID :	4410098740425
Status :	Answered
Chosen Option :	B

Q.9	Identify the sentence that correctly uses the passive voice.
Ans	✔ A. After weeks of careful investigation, the missing evidence was uncovered by the detectives, and the long-unsolved case was finally solved. ✖ B. After weeks of careful investigation, the missing evidence uncovered the detectives and finally solved the long-unsolved case. ✖ C. After weeks of careful investigation, the detectives were steadily uncovering the missing evidence that finally solved the long-unsolved case. ✖ D. After weeks of careful investigation, the detectives steadily uncovered the missing evidence that finally solved the long-unsolved case.

Question ID :	4410092221204
Option 1 ID :	4410098740451
Option 2 ID :	4410098740453
Option 3 ID :	4410098740452
Option 4 ID :	4410098740450
Status :	Answered
Chosen Option :	B

Q.10 Choose the best one word substitution for the underlined word
Henry was being described as 'a person who is new to a subject, skill, or belief' during the conference.

- Ans ☒ A. Neophyte
- ☒ B. Iconoclast
- ☒ C. Savant
- ☒ D. Maverick

Question ID :	4410092220885
Option 1 ID :	4410098739189
Option 2 ID :	4410098739188
Option 3 ID :	4410098739187
Option 4 ID :	4410098739186
Status :	Answered
Chosen Option :	B

Q.11 Complete the sentence in direct speech.

Reported sentence: The senior engineer said that I should have completed the system upgrade before the audit.
The senior engineer said, "You _____ have completed the system upgrade before the audit."

- Ans ☒ A. might
- ☒ B. must
- ☒ C. should
- ☒ D. would

Question ID :	4410091300361
Option 1 ID :	4410095133774
Option 2 ID :	4410095133772
Option 3 ID :	4410095133773
Option 4 ID :	4410095133775
Status :	Answered
Chosen Option :	B

Q.12	Identify and correct the error in the given sentence from the options provided below. By tomorrow evening, the carpenter complete the wooden cabinet.
Ans	A. By tomorrow evening, the carpenter will have complete the wooden cabinet.
	B. By tomorrow evening, the carpenter completed the wooden cabinet.
	C. By tomorrow evening, the carpenter has completed the wooden cabinet.
	D. By tomorrow evening, the carpenter will have completed the wooden cabinet.

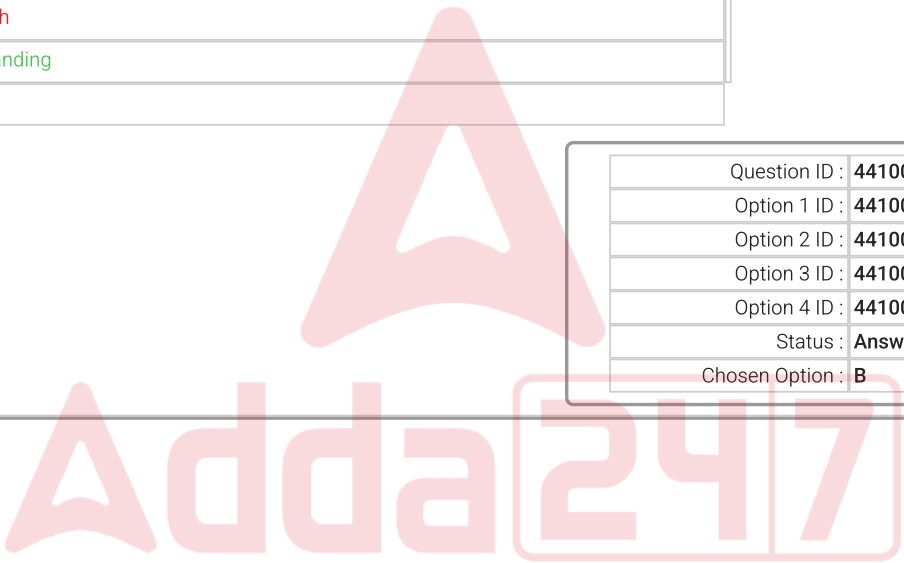
Question ID :	4410092221191
Option 1 ID :	4410098740399
Option 2 ID :	4410098740400
Option 3 ID :	4410098740401
Option 4 ID :	4410098740398
Status :	Answered
Chosen Option :	B

Q.13	Identify the incorrectly spelt word in the following sentence. The researcher aduced incontrovertible evidence demonstrating that the systematic inculcation of metacognitive strategies substantially augments students' higher-order cognitive faculties.
Ans	A. incontrovertible
	B. inculcation
	C. augments
	D. aduced

Question ID :	441009640128
Option 1 ID :	4410092514663
Option 2 ID :	4410092514662
Option 3 ID :	4410092514661
Option 4 ID :	4410092514660
Status :	Answered
Chosen Option :	B

Q.14	Complete the sentence with the most appropriate option: In the field of climate science, many experts emphasize ____ urgency of addressing ____ melting of polar ice caps to prevent catastrophic global sea level rise.	
Ans	A. the, no article B. an, no article C. the, the D. an, an	
Question ID : 441009103367 Option 1 ID : 441009411597 Option 2 ID : 441009411598 Option 3 ID : 441009411596 Option 4 ID : 441009411595 Status : Answered Chosen Option : B		

Q.15	Complete the sentence by choosing an appropriate option. _____ his vast experience in the field, he struggled to adapt to the new software.	
Ans	A. Albeit B. Even though C. Notwithstanding D. Whereas	
Question ID : 4410091602525 Option 1 ID : 4410096329676 Option 2 ID : 4410096329675 Option 3 ID : 4410096329677 Option 4 ID : 4410096329674 Status : Answered Chosen Option : B		



Q.16	Find the sentence with incorrect tense usage.
Ans	A. A healthy democracy encourages citizens to participate actively in elections and public discussions throughout the year. B. Every evening, the station announcer is announcing the train schedules and guides passengers to the correct platforms. C. Effective educational institutions encourage independent learning while providing students with consistent academic guidance. D. Every election season, political parties organize extensive public debates to explain their policies and address voters' concerns.

Question ID :	4410092221194
Option 1 ID :	4410098740410
Option 2 ID :	4410098740411
Option 3 ID :	4410098740413
Option 4 ID :	4410098740412
Status :	Answered
Chosen Option :	B

Q.17	Choose the option which correctly rectifies and completes the given sentence. The biographer pointed out that the leader's humility, resilience, and unwavering _____ to public service made him admired across generations.
Ans	A. The biographer pointed out that the leader's humility, recilience, and unwavering commitemant to public service made him admired across generations. B. The biographer pointed out that the leader's humility, resilience, and unwavering commitment to public service made him admired across generations. C. The biographer pointed out that the leader's humillity, resiliance, and unwavering committement to public service made him admired across generations. D. The biographer pointed out that the leader's humelity, resilience, and unwaverring comitement to public service made him admired across generations.

Question ID :	4410091236383
Option 1 ID :	4410094879109
Option 2 ID :	4410094879112
Option 3 ID :	4410094879111
Option 4 ID :	4410094879110
Status :	Answered
Chosen Option :	B

Question ID :	441009225763
Option 1 ID :	441009883901
Option 2 ID :	441009883898
Option 3 ID :	441009883900
Option 4 ID :	441009883899
Status :	Answered
Chosen Option :	B

Question ID :	4410091516437
Option 1 ID :	4410095989155
Option 2 ID :	4410095989153
Option 3 ID :	4410095989156
Option 4 ID :	4410095989154
Status :	Answered
Chosen Option :	B

Q.20	Choose the option that expresses the given sentence in the active voice. The young couple was admired by their neighbours because their love and mutual respect had inspired many people in the community to strengthen their own relationships.
Ans	✔ A. Their neighbours admired the young couple because their love and mutual respect had inspired many people in the community to strengthen their own relationships.
	✖ B. Their neighbours are admiring the young couple because their love and mutual respect inspires many people in the community to strengthen their own relationships.
	✖ C. The young couple admired their neighbours because their love and mutual respect had inspired many people in the community to strengthen their own relationships.
	✖ D. Their neighbours are admired by the young couple because their love and mutual respect had inspired many people in the community to strengthen their own relationships.

Question ID :	4410092221201
Option 1 ID :	4410098740438
Option 2 ID :	4410098740441
Option 3 ID :	4410098740439
Option 4 ID :	4410098740440
Status :	Answered
Chosen Option :	B

Comprehension:

Read the following passage carefully and answer the questions based on it.

Will Wimble's is the case of many a younger brother of a great family, who had rather see their children starve like gentlemen, than thrive in a trade or profession that is beneath their quality. This humour fills several parts of Europe with pride and beggary. It is the happiness of a trading nation, like ours, that the younger sons, though incapable of any liberal art or profession, may be placed in such a way of life, as may perhaps enable them to vie with the best of their family: accordingly we find several citizens that were launched into the world with narrow fortunes, rising by an honest industry to greater estates than those of their elder brothers. It is not improbable but Will was formerly tried at divinity, law, or physic; and that finding his genius did not lie that way, his parents gave him up at length to his own inventions. But certainly, however improper he might have been for studies of a higher nature, he was perfectly well turned for the occupations of trade and commerce. This serves as a testament to the wisdom of valuing honest labour, for diligence and adaptability often lead to prosperity, while prideful aversion to work only results in needless suffering and lost opportunities.

SubQuestion No : 21

Q.21	The tone of the passage can best be described as:
Ans	✔ A. Satirical and reflective
	✖ B. Didactic and analytical
	✖ C. Melancholic and sorrowful
	✖ D. Humorous and critical

Question ID :	4410091370959
Option 1 ID :	4410095415241
Option 2 ID :	4410095415243
Option 3 ID :	4410095415242
Option 4 ID :	4410095415240
Status :	Answered
Chosen Option :	B

Comprehension:
Read the following passage carefully and answer the questions based on it.
Will Wimble's is the case of many a younger brother of a great family, who had rather see their children starve like gentlemen, than thrive in a trade or profession that is beneath their quality. This humour fills several parts of Europe with pride and beggary. It is the happiness of a trading nation, like ours, that the younger sons, though incapable of any liberal art or profession, may be placed in such a way of life, as may perhaps enable them to vie with the best of their family: accordingly we find several citizens that were launched into the world with narrow fortunes, rising by an honest industry to greater estates than those of their elder brothers. It is not improbable but Will was formerly tried at divinity, law, or physic; and that finding his genius did not lie that way, his parents gave him up at length to his own inventions. But certainly, however improper he might have been for studies of a higher nature, he was perfectly well turned for the occupations of trade and commerce. This serves as a testament to the wisdom of valuing honest labour, for diligence and adaptability often lead to prosperity, while prideful aversion to work only results in needless suffering and lost opportunities.

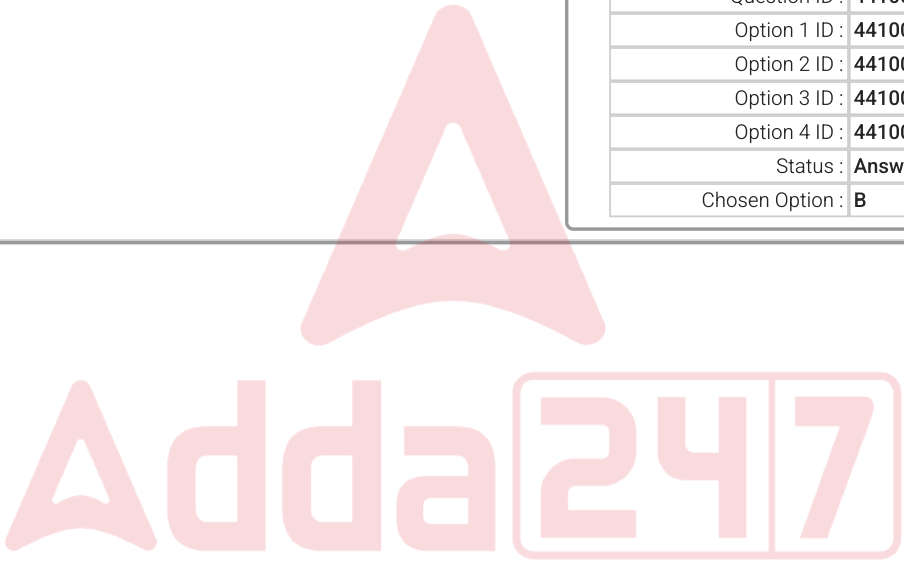
SubQuestion No : 22
Q.22 What is the structure of the passage?
Ans A. Chronological narration → Character study → Conclusion
B. Descriptive imagery → Argumentative discourse → Illustrative example
C. Question → Hypothesis → Deduction
D. Problem → Solution → Moral conclusion

Question ID :	4410091370960
Option 1 ID :	4410095415247
Option 2 ID :	4410095415245
Option 3 ID :	4410095415246
Option 4 ID :	4410095415244
Status :	Answered
Chosen Option :	B

Comprehension:
Read the following passage carefully and answer the questions based on it.
Will Wimble's is the case of many a younger brother of a great family, who had rather see their children starve like gentlemen, than thrive in a trade or profession that is beneath their quality. This humour fills several parts of Europe with pride and beggary. It is the happiness of a trading nation, like ours, that the younger sons, though incapable of any liberal art or profession, may be placed in such a way of life, as may perhaps enable them to vie with the best of their family: accordingly we find several citizens that were launched into the world with narrow fortunes, rising by an honest industry to greater estates than those of their elder brothers. It is not improbable but Will was formerly tried at divinity, law, or physic; and that finding his genius did not lie that way, his parents gave him up at length to his own inventions. But certainly, however improper he might have been for studies of a higher nature, he was perfectly well turned for the occupations of trade and commerce. This serves as a testament to the wisdom of valuing honest labour, for diligence and adaptability often lead to prosperity, while prideful aversion to work only results in needless suffering and lost opportunities.

SubQuestion No : 23
Q.23 What is the central theme of the passage?
Ans ☒ A. Education in liberal arts guarantees prosperity
☒ B. Pride and aristocracy often lead to success
☒ C. Younger sons are generally incapable of success
☒ D. Honest labor and adaptability surpass inherited status

Question ID :	4410091370961
Option 1 ID :	4410095415251
Option 2 ID :	4410095415248
Option 3 ID :	4410095415250
Option 4 ID :	4410095415249
Status :	Answered
Chosen Option :	B



Comprehension:	
Read the following passage carefully and answer the questions based on it.	
Will Wimble's is the case of many a younger brother of a great family, who had rather see their children starve like gentlemen, than thrive in a trade or profession that is beneath their quality. This humour fills several parts of Europe with pride and beggary. It is the happiness of a trading nation, like ours, that the younger sons, though incapable of any liberal art or profession, may be placed in such a way of life, as may perhaps enable them to vie with the best of their family: accordingly we find several citizens that were launched into the world with narrow fortunes, rising by an honest industry to greater estates than those of their elder brothers. It is not improbable but Will was formerly tried at divinity, law, or physic; and that finding his genius did not lie that way, his parents gave him up at length to his own inventions. But certainly, however improper he might have been for studies of a higher nature, he was perfectly well turned for the occupations of trade and commerce. This serves as a testament to the wisdom of valuing honest labour, for diligence and adaptability often lead to prosperity, while prideful aversion to work only results in needless suffering and lost opportunities.	
SubQuestion No : 24	
Q.24	Find the word from the passage that is most nearly opposite in meaning to "prosperity".
Ans	A. Invention B. Industry C. Adaptability

D. Suffering

Question ID :	4410091370962
Option 1 ID :	4410095415255
Option 2 ID :	4410095415252
Option 3 ID :	4410095415253
Option 4 ID :	4410095415254
Status :	Answered
Chosen Option :	B

Comprehension:	
Read the following passage carefully and answer the questions based on it.	
Will Wimble's is the case of many a younger brother of a great family, who had rather see their children starve like gentlemen, than thrive in a trade or profession that is beneath their quality. This humour fills several parts of Europe with pride and beggary. It is the happiness of a trading nation, like ours, that the younger sons, though incapable of any liberal art or profession, may be placed in such a way of life, as may perhaps enable them to vie with the best of their family: accordingly we find several citizens that were launched into the world with narrow fortunes, rising by an honest industry to greater estates than those of their elder brothers. It is not improbable but Will was formerly tried at divinity, law, or physic; and that finding his genius did not lie that way, his parents gave him up at length to his own inventions. But certainly, however improper he might have been for studies of a higher nature, he was perfectly well turned for the occupations of trade and commerce. This serves as a testament to the wisdom of valuing honest labour, for diligence and adaptability often lead to prosperity, while prideful aversion to work only results in needless suffering and lost opportunities.	
SubQuestion No : 25	
Q.25	According to the passage, what likely influenced Will Wimble's parents to allow him to pursue trade and commerce?
Ans	A. He excelled in divinity, law, and physic B. His aptitude did not align with traditional professions C. His genius was better suited for liberal arts D. They wanted him to surpass his elder brothers' estates

Question ID :	4410091370963
Option 1 ID :	4410095415257
Option 2 ID :	4410095415258
Option 3 ID :	4410095415256
Option 4 ID :	4410095415259
Status :	Answered
Chosen Option :	B

Section : Part 5 Domain Knowledge

Q.1	In maximum mode, the 8086 outputs three status signals S_2 , S_1 , S_0 . These are used by the:
Ans	A. 8288 bus controller to generate control signals B. priority interrupt controller C. direct memory access controller D. 8284 clock generator to generate clock signals

Question ID :	441009929674
Option 1 ID :	4410093672647
Option 2 ID :	4410093672648
Option 3 ID :	4410093672645
Option 4 ID :	4410093672646
Status :	Answered
Chosen Option :	B

Q.2	During a measurement sequence, the digital recorder in a data acquisition system consistently logs out-of-range values for all channels, although the sensors output correct voltages and the ADC produces valid digital codes. Which component is most likely the source of this error?
Ans	✔ A. The recording software applying incorrect scaling or conversion factors ✖ B. The sample-and-hold circuit having insufficient acquisition time ✖ C. The signal conditioning circuit providing inadequate amplification ✖ D. The multiplexer having excessive settling time causing incomplete channel switching

Question ID :	4410091475910
Option 1 ID :	4410095830937
Option 2 ID :	4410095830936
Option 3 ID :	4410095830935
Option 4 ID :	4410095830934
Status :	Answered
Chosen Option :	B

Q.3	The electric and magnetic fields of a uniform TEM wave of frequency 10 GHz in a homogeneous, lossless medium of relative permittivity ϵ_r and relative permeability $\mu_r = 1$ are: $\mathbf{E} = E_p e^{j(\omega t - 200\pi z)} \mathbf{a}_x \text{ V/m}$ $\mathbf{H} = 3 e^{j(\omega t - 200\pi z)} \mathbf{a}_y \text{ A/m}$ Assume the speed of light in free space is 3×10^8 m/s and the intrinsic impedance of free space is $120\pi \, \Omega$. The relative permittivity ϵ_r of the medium and the electric-field amplitude E_p are _____.
Ans	✔ A. $\epsilon_r = 9, E_p = 120\pi$ ✖ B. $\epsilon_r = 9, E_p = 40\pi$ ✖ C. $\epsilon_r = 3, E_p = 120\pi$ ✖ D. $\epsilon_r = 3, E_p = 40\pi$

Question ID :	4410091525078
Option 1 ID :	4410096023513
Option 2 ID :	4410096023512
Option 3 ID :	4410096023511
Option 4 ID :	4410096023510
Status :	Answered
Chosen Option :	D

Q.4	In an ideal MOS capacitor, when the external gate-to-substrate voltage equals the flatband voltage, what is the electrostatic surface potential at the oxide-semiconductor interface, and how do the semiconductor energy bands behave?
Ans	A. The surface potential equals twice the bulk potential and the energy bands reach maximum bending. B. The surface potential is exactly zero and the energy bands are completely flat. C. The surface potential is negative and the energy bands bend upward.

D. The surface potential is positive and the energy bands bend downward.

Question ID :	4410092269224
Option 1 ID :	4410098926695
Option 2 ID :	4410098926696
Option 3 ID :	4410098926698
Option 4 ID :	4410098926697
Status :	Answered
Chosen Option :	B

Q.5	Represent the given signal $x(n) = [1, 2, \underline{3}, 2, 1]$ in terms of impulse signal. Note: The number with underline is the amplitude at origin.
Ans	A. $x(n) = \delta(n + 2) + \delta(n + 1) + \delta(n) + \delta(n - 1) + \delta(n - 2)$ B. $x(n) = 2\delta(n + 2) + \delta(n + 1) + 3\delta(n) + \delta(n - 1) + 2\delta(n - 2)$ C. $x(n) = \delta(n + 2) + 2\delta(n + 1) + 3\delta(n) + 2\delta(n - 1) + \delta(n - 2)$

D. $x(n) = 1\delta(n) + 2\delta(n - 1) + 3\delta(n - 2) + 2\delta(n - 3) + \delta(n - 4)$

Question ID :	4410094999
Option 1 ID :	44100919819
Option 2 ID :	44100919818
Option 3 ID :	44100919820
Option 4 ID :	44100919821
Status :	Answered
Chosen Option :	C

Q.6	In bolometer measurements, which process is most crucial for detecting temperature changes?
Ans	A. Absorption of electromagnetic radiation B. Reflection of heat C. Emission of infrared waves

D. Transmission of light

Question ID :	4410091725402
Option 1 ID :	4410096804667
Option 2 ID :	4410096804669
Option 3 ID :	4410096804670
Option 4 ID :	4410096804668
Status :	Answered
Chosen Option :	A

Q.7	In a single-phase AC transformer, the hysteresis loss is associated with which of the following?
Ans	☒ A. Core
	☒ B. Secondary coil only
	☒ C. Both primary and secondary coils
	☒ D. Primary coil only

Question ID :	4410091086137
Option 1 ID :	4410094282093
Option 2 ID :	4410094282092
Option 3 ID :	4410094282094
Option 4 ID :	4410094282091
Status :	Answered
Chosen Option :	A

Q.8	In the internal architecture of the 8255, the Group A control block manages which of the following?
Ans	☒ A. Port B and the upper half of Port C (PC4–PC7)
	☒ B. Port A and the upper half of Port C (PC4–PC7)
	☒ C. Port A and the lower half of Port C (PC0–PC3)
	☒ D. Only Port A

Question ID :	4410091482090
Option 1 ID :	4410095855371
Option 2 ID :	4410095855369
Option 3 ID :	4410095855370
Option 4 ID :	4410095855372
Status :	Answered
Chosen Option :	B

Q.9	In an ionisation gauge, the ion current collected at the plate is proportional to:
Ans	☒ A. The electron emission current from the filament
	☒ B. The number of gas molecules (i.e., gas pressure) in the system
	☒ C. The potential difference between the grid and plate
	☒ D. The temperature of the heated filament

Question ID :	4410091478498
Option 1 ID :	4410095841332
Option 2 ID :	4410095841333
Option 3 ID :	4410095841334
Option 4 ID :	4410095841331
Status :	Answered
Chosen Option :	B

Q.10	If $x(t)$ is delayed by 3 seconds, the expression is _____.
Ans	A. $x(t / 3)$ B. $x(t - 3)$ C. $x(t + 3)$ D. $x(3 t)$

Question ID :	4410091384871
Option 1 ID :	4410095470245
Option 2 ID :	4410095470243
Option 3 ID :	4410095470242
Option 4 ID :	4410095470244
Status :	Answered
Chosen Option :	B

Q.11	When migrating a layout using scalable lambda-based design rules to a new foundry node, which configuration for parallel poly-gate lines creates a systematic scaling violation because it introduces a variable feature size dependency instead of a fixed multiple of lambda?
Ans	A. Setting minimum spacing relative to the poly-gate width instead of lambda units B. Using the same minimum spacing for poly-gate and contact cuts C. Applying minimum spacing based on the direction of metal lines only D. Referencing minimum spacing to the diffusion mask layer for all layers

Question ID :	4410092269238
Option 1 ID :	4410098926752
Option 2 ID :	4410098926754
Option 3 ID :	4410098926751
Option 4 ID :	4410098926753
Status :	Answered
Chosen Option :	B

Q.12

A bandpass signal $x(t) = 4\cos(2\pi \times 10^4t + \pi/4)$ has an analytic representation. What is the complex envelope when the carrier frequency is 10 kHz?

Ans

A.

$2e^{-j\frac{\pi}{4}}$

B.

$2e^{j\frac{\pi}{4}}$

C.

$4e^{-j\frac{\pi}{4}}$

D.

$4e^{j\frac{\pi}{4}}$

Question ID :

4410091417331

Option 1 ID :

4410095598261

Option 2 ID :

4410095598262

Option 3 ID :

4410095598260

Option 4 ID :

4410095598259

Status :

Answered

Chosen Option :

C

Q.13

Match the columns.

OP-AMP Circuit	Application or Method of Operation
I. Difference amplifier	A. Convert square wave into periodic spikes
II. Antilog amplifier	B. Used as last stage in instrumentation amplifier
III. Differentiator	C. Relates input to an exponential term in the output

Ans

A.

I-A, II-B, III-C

B.

I-A, II-C, III-B

C.

I-C, II-B, III-A

D.

I-B, II-C, III-A

Question ID :

4410091115677

Option 1 ID :

4410094398617

Option 2 ID :

4410094398614

Option 3 ID :

4410094398615

Option 4 ID :

4410094398616

Status :

Answered

Chosen Option :

D

Q.14	Choose the correct statement for integrated circuit. S1: The basic function of buried n ⁺ layer in n-p-n transistor in IC is to reduce the collector series resistance. S2: The p-type epitaxial layer grown over an n-type substrate during BJT fabrication will work as the collector of a p-n-p BJT.
Ans	✔ A. S1 only ✘ B. S2 only ✘ C. S1 and S2 ✘ D. Neither S1 nor S2

Question ID :	4410091510021
Option 1 ID :	4410095964765
Option 2 ID :	4410095964766
Option 3 ID :	4410095964764
Option 4 ID :	4410095964767
Status :	Answered
Chosen Option :	A

Q.15	A lead compensator is designed to improve:
Ans	✘ A. Low-frequency gain and steady-state error ✘ B. Steady-state error only ✘ C. System order ✔ D. Phase margin and transient response

Question ID :	4410091420211
Option 1 ID :	4410095609765
Option 2 ID :	4410095609767
Option 3 ID :	4410095609768
Option 4 ID :	4410095609766
Status :	Answered
Chosen Option :	B

Q.16	In a remote agricultural monitoring network, a cluster of sensors is coordinated through a central hub using a trunked cellular system. If the system aims to maximize channel utilization without increasing the probability of blocked connections beyond its target, which design feature is most critical to monitor for consistently meeting the specified grade of service?
Ans	A. Focusing on the geographic distribution of sensor nodes B. Expanding the number of user terminals connected to the hub C. The allocation and management of available channels relative to call traffic fluctuations

D. Increasing the antenna height at the central hub

Question ID :	4410092269257
Option 1 ID :	4410098926827
Option 2 ID :	4410098926830
Option 3 ID :	4410098926829
Option 4 ID :	4410098926828
Status :	Answered
Chosen Option :	B

Q.17	A centre-tapped full-wave rectifier uses ideal diodes and a transformer whose each half-secondary provides a sinusoidal voltage with a peak value V_m . The load is purely resistive. For this ideal (no diode drop) centre-tapped full-wave rectifier, what are the expressions for the average (DC) output voltage V_{DC} and the RMS output voltage (V_{rms}) across the load?
Ans	A. $V_{DC} = V_m/2\pi, V_{rms} = V_m/\sqrt{2}$ B. $V_{DC} = V_m/\pi, V_{rms} = V_m/\sqrt{2}$ C. $V_{DC} = V_m/\pi, V_{rms} = V_m/2$

D. $V_{DC} = 2V_m/\pi, V_{rms} = V_m/\sqrt{2}$

Question ID :	4410091391818
Option 1 ID :	4410095496971
Option 2 ID :	4410095496972
Option 3 ID :	4410095496969
Option 4 ID :	4410095496970
Status :	Answered
Chosen Option :	B

Q.18	In the introductory specification phase of a digital VLSI design flow, which document is responsible for detailing the absolute functional, electrical, and performance requirements of the target system, and serves primarily to guide architectural design decisions?
Ans	A. A static timing constraints file, which sets the clock jitter tolerances for layout routing. B. A design specification document, which defines clear system constraints to guide architectural design. C. A physical floorplan layout, which calculates the exact coordinate spacing of power distribution rails. D. An RTL netlist, which maps behavioral equations directly to physical standard cell transistors.

Question ID :	4410092269242
Option 1 ID :	4410098926768
Option 2 ID :	4410098926767
Option 3 ID :	4410098926769
Option 4 ID :	4410098926770
Status :	Answered
Chosen Option :	B

Q.19	For a distortionless transmission line, the attenuation constant α and phase constant β are:
Ans	A. $\alpha = 0, \quad \beta = \omega\sqrt{LC}$ B. $\alpha = \omega\sqrt{LC}, \quad \beta = \sqrt{RG}$ C. $\alpha = \sqrt{RG}, \quad \beta = \omega\sqrt{LC}$ D. $\alpha = \sqrt{LC}, \quad \beta = \omega\sqrt{RG}$

Question ID :	4410091546027
Option 1 ID :	4410096106939
Option 2 ID :	4410096106941
Option 3 ID :	4410096106940
Option 4 ID :	4410096106942
Status :	Answered
Chosen Option :	A

D. An RTL netlist, which maps behavioral equations directly to physical standard cell transistors.

Q.20	An NMOS transistor has an intrinsic threshold voltage of 0.7 V assuming body effect is neglected. The source terminal is at 1.0 V, and the gate terminal is at 3.0 V. What is the exact boundary drain voltage (V _D) that separates the linear region from the saturation region of operation?	
Ans	✓ A. 2.3 V ✗ B. 2.0 V ✗ C. 1.0 V ✗ D. 1.7 V	Question ID : 4410092269228 Option 1 ID : 4410098926711 Option 2 ID : 4410098926714 Option 3 ID : 4410098926713 Option 4 ID : 4410098926712 Status : Answered Chosen Option : B
Q.21	What is the output of the Boolean expression $A + \overline{A}$?	
Ans	✗ A. 0 ✗ B. $\overline{A}$ ✗ C. A ✓ D. 1	Question ID : 4410091142006 Option 1 ID : 4410094502995 Option 2 ID : 4410094502993 Option 3 ID : 4410094502992 Option 4 ID : 4410094502994 Status : Answered Chosen Option : D
Q.22	A sensor state is represented by bit address 30H, where logic high indicates the sensor is active. Which instruction branches only when the sensor is inactive?	
Ans	✗ A. JBC 30H, INACTIVE_HANDLER ✗ B. JB 30H, INACTIVE_HANDLER ✓ C. JNB 30H, INACTIVE_HANDLER ✗ D. JC INACTIVE_HANDLER	Question ID : 4410092267660 Option 1 ID : 4410098920540 Option 2 ID : 4410098920539 Option 3 ID : 4410098920541 Option 4 ID : 4410098920542 Status : Answered Chosen Option : B

Q.23	For the control system whose open loop transfer function is $G(s)H(s) = \frac{4}{(s + 2)(s + 6)}$, the steady state error for the unit ramp input is _____.
Ans	☒ A. 0
	☒ B. 3
	☒ C. 1/3
	☒ D. ∞

Question ID :	441009677250
Option 1 ID :	4410092663182
Option 2 ID :	4410092663181
Option 3 ID :	4410092663184
Option 4 ID :	4410092663183
Status :	Answered
Chosen Option :	D

Q.24	The control unit can be implemented using which of the following in a Central Processing Unit?
Ans	☒ A. Combinational logic only
	☒ B. Either hardwired or microprogrammed control
	☒ C. Programmed control only
	☒ D. System control only

Question ID :	4410091187681
Option 1 ID :	4410094684965
Option 2 ID :	4410094684962
Option 3 ID :	4410094684964
Option 4 ID :	4410094684963
Status :	Answered
Chosen Option :	B

Q.25	Which filter type is NOT a linear phase Finite Impulse Response (FIR) structure?
Ans	☒ A. Type II
	☒ B. Type III
	☒ C. Chebyshev Type I
	☒ D. Type I

Question ID :	4410091233404
Option 1 ID :	4410094867291
Option 2 ID :	4410094867292
Option 3 ID :	4410094867293
Option 4 ID :	4410094867290
Status :	Answered
Chosen Option :	C

Q.26	For a P-N junction diode, the width of the depletion region is:	
Ans	✗ A. Directly proportional to the room temperature. ✓ B. Directly proportional to the built-in barrier potential. ✗ C. Inversely proportional to the built-in barrier potential. ✗ D. Independent of built-in barrier potential and room temperature.	
Question ID : 44100929905 Option 1 ID : 441009119074 Option 2 ID : 441009119073 Option 3 ID : 441009119075 Option 4 ID : 441009119076 Status : Answered Chosen Option : D		
Q.27	What is the INCORRECT pair of relation for a BJT transistor?	
Ans	✗ A. Base region lightly doped and least area ✗ B. Collector is largest area and moderate doping ✓ C. Collector is smallest area and largest doping ✗ D. Emitter region highest doping and moderate area	
Question ID : 4410091452348 Option 1 ID : 4410095737794 Option 2 ID : 4410095737793 Option 3 ID : 4410095737795 Option 4 ID : 4410095737792 Status : Answered Chosen Option : C		

Q.28	If a 4-PAM system uses equally spaced levels $\{-3A, -A, +A, +3A\}$, what is the average energy per symbol?
Ans	A. $7A^2$
	B. $10A^2$
	C. $5A^2$
	D. A^2

Question ID :	441009929839
Option 1 ID :	4410093673309
Option 2 ID :	4410093673308
Option 3 ID :	4410093673307
Option 4 ID :	4410093673306
Status :	Answered
Chosen Option :	B

Q.29	The roots of the characteristic equation are numerically equal to:
Ans	A. frequencies at which the system gain is unity (0 dB)
	B. either the poles or zeros, depending on the system's stability
	C. the zeros of the closed-loop transfer function
	D. the poles of the closed-loop transfer function

Question ID :	4410091308220
Option 1 ID :	4410095164538
Option 2 ID :	4410095164537
Option 3 ID :	4410095164535
Option 4 ID :	4410095164536
Status :	Answered
Chosen Option :	B

Q.30	Select the correct statement related to contact potential or depletion region in the PN junction.
Ans	A. The diffusion process leaves behind both immobile positive ions and immobile negative ions on the p-side, creating a depletion region. B. The diffusion process leaves behind immobile positive ions on the p-side and immobile negative ions on the n-side, creating a depletion region. C. The diffusion process leaves behind immobile positive ions on the n-side and immobile negative ions on the p-side, creating a depletion region. D. The diffusion process leaves behind both immobile positive ions and immobile negative ions on the n-side, creating a depletion region.

Question ID :	4410091452407
Option 1 ID :	4410095738026
Option 2 ID :	4410095738025
Option 3 ID :	4410095738027
Option 4 ID :	4410095738024
Status :	Answered
Chosen Option :	C

Q.31	A unity-feedback system has the open-loop transfer function $G(s) = \frac{K}{s(1 + 0.5s)}$ The designer wants to increase the gain-crossover frequency of the Bode plot without changing the phase margin. Which of the following modifications is the most appropriate?
Ans	A. Add an integrator in series to boost high-frequency response. B. Add a lead compensator to shift phase upward near the crossover frequency. C. Only increase K. D. Add a lag compensator to raise low-frequency gain.

Question ID :	4410091376381
Option 1 ID :	4410095437083
Option 2 ID :	4410095437081
Option 3 ID :	4410095437080
Option 4 ID :	4410095437082
Status :	Answered
Chosen Option :	B

Q.32	When two two-port networks are connected in series at the input port and in parallel at the output port (series–parallel connection), which parameter set is most suitable for determining the overall network parameters?
Ans	A. ABCD-parameters B. Y-parameters C. h-parameters D. Z-parameters

Question ID :	4410092267686
Option 1 ID :	4410098920643
Option 2 ID :	4410098920646
Option 3 ID :	4410098920644
Option 4 ID :	4410098920645
Status :	Answered
Chosen Option :	C

Q.33	A system have impulse response $h(t) = 5e^{-2t}u(t)$. What is the transfer function $H(s)$ of the system?
Ans	A. $\frac{5}{(s-2)}$ B. $\frac{5s}{(s+2)}$ C. $\frac{5}{(s+2)}$ D. $\frac{(s-2)}{5}$

Question ID :	4410092267677
Option 1 ID :	4410098920608
Option 2 ID :	4410098920610
Option 3 ID :	4410098920607
Option 4 ID :	4410098920609
Status :	Answered
Chosen Option :	C

Q.34	In a polling-based 8051 microcontroller program, how is the Timer/Counter overflow flag (TFx) cleared?
Ans	☐ A. By setting the C/T bit to 1
	☐ B. By restarting the counter
	☐ C. By reading the TLx register
	☒ D. By writing 0 to the TFx bit through software

Question ID :	4410092267661
Option 1 ID :	4410098920544
Option 2 ID :	4410098920545
Option 3 ID :	4410098920546
Option 4 ID :	4410098920543
Status :	Answered
Chosen Option :	B

Q.35	in an 8051 microcontroller-based serial communication system operating in Mode 2 multiprocessor communication, a slave with SM2 = 1 recognizes its own address frame (TB8 = 1). What should the slave do next to receive the subsequent data frames (TB8 = 0)?
Ans	☐ A. Set SM2 again after clearing RI.
	☐ B. Set TB8 before the next frame is received
	☐ C. Leave SM2 set for subsequent communication.
	☒ D. Clear SM2 before the next data frame is received.

Question ID :	4410092267651
Option 1 ID :	4410098920504
Option 2 ID :	4410098920505
Option 3 ID :	4410098920503
Option 4 ID :	4410098920506
Status :	Answered
Chosen Option :	B

Q.36	Consider a Moore FSM designed for a sequence detector. Compared to its Mealy FSM counterpart, which of the following is true?
Ans	☒ A. Moore FSM output changes only after state transitions.
	☐ B. Moore FSM output depends on input as well as state.
	☐ C. Moore FSM requires fewer states.
	☐ D. Moore FSM has faster response to input sequences.

Question ID :	4410091521112
Option 1 ID :	4410096007632
Option 2 ID :	4410096007633
Option 3 ID :	4410096007631
Option 4 ID :	4410096007630
Status :	Answered
Chosen Option :	B

Q.37	A 3-phase, 4-pole induction motor operates from a 50 Hz supply and runs at 1440 rpm under load. What is the slip of the motor?
Ans	A. 0.02
	B. 0.08
	C. 0.04
	D. 0.06

Question ID :	4410092267635
Option 1 ID :	4410098920439
Option 2 ID :	4410098920442
Option 3 ID :	4410098920440
Option 4 ID :	4410098920441
Status :	Answered
Chosen Option :	B

Q.38	An embedded system must execute a sensor-monitoring routine every 5 ms while allowing the processor to perform other tasks. Which function of the 8253 (Programmable Interval Timer) best supports this requirement?
Ans	A. Generating periodic interrupt signals for the processor
	B. Converting digital data into analog signals
	C. Controlling asynchronous serial data communication
	D. Performing parallel input/output data transfer with peripheral devices

Question ID :	4410092267659
Option 1 ID :	4410098920535
Option 2 ID :	4410098920537
Option 3 ID :	4410098920538
Option 4 ID :	4410098920536
Status :	Answered
Chosen Option :	B

Q.39	Consider a closed surface S surrounding a volume V . If $\vec{a}$ is the vector field and $\hat{n}$, the unit normal on S , the value of the integral $\oint_S \vec{a} \cdot \hat{n} dS$ is
Ans	A. 15 V B. 3 V C. 5 V D. 9 V

Question ID :	441009678120
Option 1 ID :	4410092666647
Option 2 ID :	4410092666644
Option 3 ID :	4410092666645
Option 4 ID :	4410092666646
Status :	Answered
Chosen Option :	B

Q.40	In a fixed assignment strategy with borrowing, what typically occurs to a channel in its original cell when it is borrowed, and what constraint must be met?
Ans	A. It becomes completely locked, provided the loan causes no co-channel interference. B. It drops to a low-capacity data state, provided both cells sync their antennas. C. It remains fully active, provided the borrowing cell doubles its transmission power. D. It shifts to an emergency fallback mode, provided the original cell is empty.

Question ID :	4410092269249
Option 1 ID :	4410098926796
Option 2 ID :	4410098926795
Option 3 ID :	4410098926798
Option 4 ID :	4410098926797
Status :	Answered
Chosen Option :	B

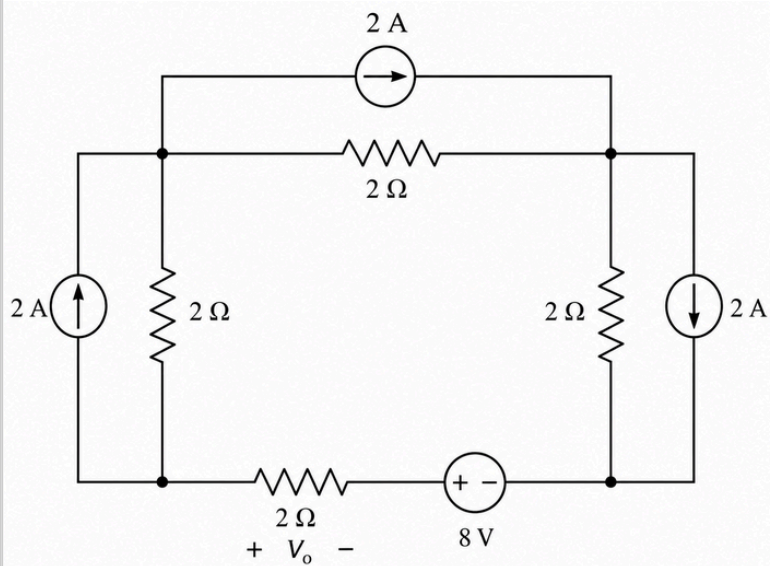
Q.41	Choose the correct statement for the mean of a random variable. S1: The mean is also called the expected value. S2: The mean value of discrete random variable x is $\sum_i x_i P_x(x_i)$
Ans	✔ A. S1 and S2 both ✘ B. S2 only ✘ C. S1 only ✘ D. Neither S1 nor S2

Question ID :	4410091298082
Option 1 ID :	4410095124556
Option 2 ID :	4410095124559
Option 3 ID :	4410095124558
Option 4 ID :	4410095124557
Status :	Answered
Chosen Option :	A

Q.42	Lag compensator is suitable for improving _____.
Ans	✔ A. Steady-state performance ✘ B. High-frequency gain ✘ C. Noise immunity ✘ D. System speed

Question ID :	4410091011686
Option 1 ID :	4410093998414
Option 2 ID :	4410093998412
Option 3 ID :	4410093998411
Option 4 ID :	4410093998413
Status :	Answered
Chosen Option :	D

Q.43 For the circuit shown, determine the output voltage V_o



- Ans
- ☒ A. 10 V
 - ☒ B. 6 V
 - ☒ C. - 5 V
 - ☒ D. 4 V

Question ID :	4410092267672
Option 1 ID :	4410098920590
Option 2 ID :	4410098920589
Option 3 ID :	4410098920587
Option 4 ID :	4410098920588
Status :	Answered
Chosen Option :	C

Q.44 Consider a lag compensator with the transfer function $G_c(s) = (s + a)/(s + b)$, where a and b are positive real numbers with $a < b$. Which of the following statements is not true?

- Ans
- ☒ A. The lag compensator introduces a phase lag in the system.
 - ☒ B. The lag compensator improves the steady-state error of the system.
 - ☒ C. The lag compensator increases the bandwidth of the system.
 - ☒ D. The lag compensator does not change the transient response of the system.

Question ID :	4410091443876
Option 1 ID :	4410095704081
Option 2 ID :	4410095704082
Option 3 ID :	4410095704083
Option 4 ID :	4410095704084
Status :	Answered
Chosen Option :	D

Q.45	An 8051 microcontroller receives commands from a PC through its serial port. Which bit of the SCON register indicates that a new character has been received and is ready to be read?	
Ans	A. TB8 (Transmit Bit 8) B. SM0 (Serial Mode Select 0) C. RI (Receive Interrupt flag) D. TI (Transmit Interrupt flag)	
Question ID : 4410092267650 Option 1 ID : 4410098920501 Option 2 ID : 4410098920499 Option 3 ID : 4410098920500 Option 4 ID : 4410098920502 Status : Answered Chosen Option : B		
Q.46	In a hexagonal cellular network, if an engineer uses the coordinate shift parameters $i = 3$ and $j = 2$ to determine co-channel cell locations, what is the required cluster size N to achieve frequency reuse without spatial gaps?	
Ans	A. $N = 9$ B. $N = 19$ C. $N = 7$ D. $N = 12$	
Question ID : 4410092269252 Option 1 ID : 4410098926808 Option 2 ID : 4410098926810 Option 3 ID : 4410098926807 Option 4 ID : 4410098926809 Status : Answered Chosen Option : B		

Question ID :	4410091475894
Option 1 ID :	4410095830870
Option 2 ID :	4410095830873
Option 3 ID :	4410095830872
Option 4 ID :	4410095830871
Status :	Answered
Chosen Option :	B

Question ID :	4410091276736
Option 1 ID :	4410095039182
Option 2 ID :	4410095039181
Option 3 ID :	4410095039180
Option 4 ID :	4410095039179
Status :	Answered
Chosen Option :	D

Question ID :	441009620081
Option 1 ID :	4410092434443
Option 2 ID :	4410092434441
Option 3 ID :	4410092434442
Option 4 ID :	4410092434444
Status :	Answered
Chosen Option :	B

Q.50 A 4-bit ripple down counter is operating with a clock frequency of 16 kHz. The outputs of the flip-flops are labelled Q_3 , Q_2 , Q_1 , and Q_0 , where Q_3 is the most significant bit (MSB) and Q_0 is the least significant bit (LSB). What will be the frequency of the output from the third flip-flop (Q_2)?

- Ans
- ☒ A. 1 kHz
 - ☒ B. 8 kHz
 - ☒ C. 4 kHz
 - ☒ D. 2 kHz

Question ID :	4410091381340
Option 1 ID :	4410095456563
Option 2 ID :	4410095456560
Option 3 ID :	4410095456561
Option 4 ID :	4410095456562
Status :	Answered
Chosen Option :	B

Q.51 The numerical value of the scalar triple product $\vec{A} \cdot (\vec{B} \times \vec{C})$ is equal to which of the following?

- Ans
- ☒ A. The volume of the parallelepiped formed by $\vec{A}$, $\vec{B}$, $\vec{C}$
 - ☒ B. The angle between vectors $\vec{B}$ and $\vec{C}$
 - ☒ C. The area of the triangle formed by $\vec{A}$, $\vec{B}$, $\vec{C}$
 - ☒ D. The magnitude of vector $\vec{A}$ only

Question ID :	4410091144009
Option 1 ID :	4410094510997
Option 2 ID :	4410094510998
Option 3 ID :	4410094510996
Option 4 ID :	4410094510999
Status :	Answered
Chosen Option :	A

Q.52 The unit of both static and dynamic resistance of a diode is _____.

- Ans
- ☒ A. amperes
 - ☒ B. ohms
 - ☒ C. siemens
 - ☒ D. volts

Question ID :	441009323483
Option 1 ID :	4410091260117
Option 2 ID :	4410091260116
Option 3 ID :	4410091260114
Option 4 ID :	4410091260115
Status :	Answered
Chosen Option :	B

Q.53	Which of the following is a correct difference between an analog and a digital instrumentation system?
Ans	A. Analog: discrete, Digital: continuous
	B. Analog: discontinuous, Digital: continuous
	C. Analog: uses pulses, Digital: uses smooth curves
	D. Analog: continuous, Digital: discrete

Question ID :	4410091516823
Option 1 ID :	4410095990691
Option 2 ID :	4410095990689
Option 3 ID :	4410095990690
Option 4 ID :	4410095990692
Status :	Answered
Chosen Option :	D

Q.54	Consider the following statements regarding antenna types used in satellite earth stations. S1. Parabolic reflector antennas are commonly used for high-gain requirements. S2. Horn antennas are typically chosen for low-frequency satellite links. S3. Helical antennas are preferred for circular polarization applications. Which of the above statements is correct?
Ans	A. S1, S2, and S3
	B. S1 and S2 only
	C. S2 and S3 only
	D. S1 and S3 only

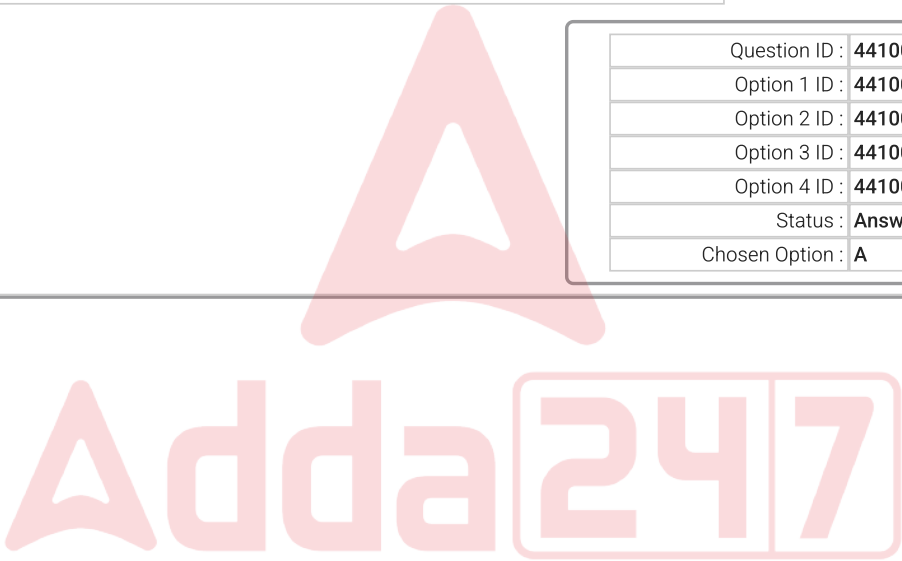
Question ID :	4410091716594
Option 1 ID :	4410096770182
Option 2 ID :	4410096770179
Option 3 ID :	4410096770180
Option 4 ID :	4410096770181
Status :	Answered
Chosen Option :	D

Q.55	Which of the following is NOT a characteristic of a strong password?
Ans	A. Is at least 6 characters long
	B. Includes special characters
	C. Contains uppercase and lowercase letters
	D. Uses dictionary words

Question ID :	44100934595
Option 1 ID :	441009137776
Option 2 ID :	441009137775
Option 3 ID :	441009137774
Option 4 ID :	441009137777
Status :	Answered
Chosen Option :	A

Q.56	Which type of junction is used in a Zener diode?
Ans	A. p-n junction
	B. p-p junction
	C. Metal-semiconductor junction
	D. n-n junction

Question ID :	441009322571
Option 1 ID :	4410091256474
Option 2 ID :	4410091256476
Option 3 ID :	4410091256477
Option 4 ID :	4410091256475
Status :	Answered
Chosen Option :	A



Q.57	Identify whether the given statements related to CMOS are correct. Statement I: A static CMOS inverter for logic 1 input has PMOS in ON state. Statement II: Static power is nearly zero because there's no direct path from V_{DD} to ground when inputs are not switching.	
Ans	A. Both statements I and II are wrong B. Only statement I is correct C. Only statement II is correct D. Both statements I and II are correct	
Question ID : 4410091287610 Option 1 ID : 4410095082225 Option 2 ID : 4410095082222 Option 3 ID : 4410095082223 Option 4 ID : 4410095082224 Status : Answered Chosen Option : C		
Q.58	What happens when a jump or branch instruction is executed in the 8086 microprocessor pipeline?	
Ans	A. Prefetch queue is flushed and refilled from the new location. B. BIU halts until EU finishes. C. Execution continues with the next instruction in queue. D. BIU is disabled.	
Question ID : 441009832065 Option 1 ID : 4410093281473 Option 2 ID : 4410093281475 Option 3 ID : 4410093281474 Option 4 ID : 4410093281476 Status : Answered Chosen Option : C		

Q.59	Given the signal $x(t) = e^{-2t}$, for $0 \leq t \leq 5$, find the Laplace transform $X(s)$ and its ROC.	
Ans	A. $\frac{1 - e^{-5(s-2)}}{s-2}$, ROC: $\text{Re}(s) < 2$	
	B. $\frac{1 - e^{-5(s+2)}}{s+2}$, ROC: Entire s- plane	
	C. $\frac{1 - e^{-5(s+2)}}{s+2}$, ROC: $\text{Re}(s) > -2$	
	D. $\frac{e^{-5(s+2)} - 1}{s+2}$, ROC: $\text{Re}(s) > 0$	
Question ID : 441009290544 Option 1 ID : 4410091129085 Option 2 ID : 4410091129086 Option 3 ID : 4410091129084 Option 4 ID : 4410091129087 Status : Answered Chosen Option : C		
Q.60	Which of the following signals is a periodic signal?	
Ans	A. $x(t) = \sin(t^2)$	
	B. $x(t) = e^{-3t}$	
	C. $x(t) = t \cdot \sin(t)$	
	D. $x(t) = e^{j(t+1)}$	
Question ID : 4410091267702 Option 1 ID : 4410095003516 Option 2 ID : 4410095003515 Option 3 ID : 4410095003517 Option 4 ID : 4410095003514 Status : Answered Chosen Option : C		

Q.61	Which property of a material does a bolometer primarily rely on to measure temperature changes?
Ans	✖ A. Change in capacitance
	✔ B. Change in electrical resistance
	✖ C. Change in color
	✖ D. Change in mechanical length

Question ID :	4410091712252
Option 1 ID :	4410096753200
Option 2 ID :	4410096753198
Option 3 ID :	4410096753201
Option 4 ID :	4410096753199
Status :	Answered
Chosen Option :	B

Q.62	Consider a discrete-time LTI system described by the difference equation: $y[n]-0.8y[n-1]=x[n]+0.5x[n-1]$ If the input is a unit step $x[n]=u[n]$, determine the step response $y[n]$ using the Z-transform method.
Ans	✖ A. $y[n] = 1.5(1 - 0.8^n)$
	✖ B. $y[n] = 2.5(1 - 0.8^n)$
	✖ C. $y[n] = 2.5n(0.8)^n$
	✔ D. $y[n] = (7.5 - 6.5(0.8)^n)u[n]$

Question ID :	4410091445472
Option 1 ID :	4410095710467
Option 2 ID :	4410095710465
Option 3 ID :	4410095710468
Option 4 ID :	4410095710466
Status :	Answered
Chosen Option :	D

Q.63	In structural hardware description language modeling, what fundamental element forms the basis of the design topology, and how are these elements interconnected to build a larger system?
Ans	A. Interconnected logical processes, which pass data using global variables. B. Pre-defined component instances, which are wired together using internal signals. C. Independent finite state machines, which communicate using asynchronous bus protocols. D. Sequential software statements, which execute inside a single continuous loop.

Question ID :	4410092269247
Option 1 ID :	4410098926787
Option 2 ID :	4410098926789
Option 3 ID :	4410098926788
Option 4 ID :	4410098926790
Status :	Answered
Chosen Option :	B

Q.64	Identify the correct region/layer responsible for very high input impedance of the N-channel Depletion type MOSFET Structure.
Ans	A. heavily doped n region of drain B. metal contact for gate terminal C. p-type substrate D. silicon dioxide layer

Question ID :	44100929756
Option 1 ID :	441009118488
Option 2 ID :	441009118486
Option 3 ID :	441009118485
Option 4 ID :	441009118487
Status :	Answered
Chosen Option :	A

Q.65	What is the key concept of the Von Neumann architecture that distinguishes it from the Harvard architecture?
Ans	A. It uses a single, shared memory for both program instructions and data. B. It relies exclusively on registers for all data manipulation. C. It has separate memories for program instructions and data. D. It does not have a Control Unit.

Question ID :	4410091482530
Option 1 ID :	4410095857103
Option 2 ID :	4410095857105
Option 3 ID :	4410095857104
Option 4 ID :	4410095857106
Status :	Answered
Chosen Option :	B

Q.66	The inconsistency in Ampere's Law arises when the _____.
Ans	A. magnetic fields are absent B. electric fields change with time C. electric fields are constant D. charges are stationary

Question ID :	441009240467
Option 1 ID :	441009940025
Option 2 ID :	441009940027
Option 3 ID :	441009940026
Option 4 ID :	441009940028
Status :	Answered
Chosen Option :	A

Q.67	The small signal model of the diode is comprised of:
Ans	A. Internal diode capacitance only B. Internal diode resistance only C. Both internal diode resistance and diode capacitance. D. High frequency parasitic wiring capacitance only.

Question ID :	44100929927
Option 1 ID :	441009119158
Option 2 ID :	441009119157
Option 3 ID :	441009119159
Option 4 ID :	441009119160
Status :	Answered
Chosen Option :	C

Q.68	Which of the following best describes the main advantage of the Fast Fourier Transform (FFT) algorithm over direct DFT computation?
Ans	A. It eliminates the need for complex arithmetic. B. It reduces the number of computations by exploiting symmetry and periodicity. C. It uses a larger number of data points for accuracy. D. It increases the number of multiplications.

Question ID :	4410091423713
Option 1 ID :	4410095623682
Option 2 ID :	4410095623680
Option 3 ID :	4410095623681
Option 4 ID :	4410095623679
Status :	Answered
Chosen Option :	B

Q.69	For a transmission line, the general propagation constant is: $\gamma = \sqrt{(R + j\omega L)(G + j\omega C)}$. If the line is distortionless, the attenuation constant α and the phase constant β are:
Ans	A. $\alpha = \sqrt{RG}$, $\beta = \omega / \sqrt{LC}$ B. $\alpha = \sqrt{RG}$, $\beta = \omega\sqrt{LC}$ C. $\alpha = (R/2)\sqrt{C/L} + (G/2)\sqrt{L/C}$, $\beta = \omega\sqrt{LC}$ D. $\alpha = 0$, $\beta = \omega\sqrt{LC}$

Question ID :	4410091287328
Option 1 ID :	4410095081105
Option 2 ID :	4410095081103
Option 3 ID :	4410095081106
Option 4 ID :	4410095081104
Status :	Answered
Chosen Option :	D

Q.70	Which of the following best describes the control unit in the Von Neumann architecture?
Ans	A. It decodes instructions and controls the execution of operations B. It connects external devices to the system bus C. It stores both data and instructions D. It performs arithmetic operations

Question ID :	4410091477529
Option 1 ID :	4410095837503
Option 2 ID :	4410095837506
Option 3 ID :	4410095837505
Option 4 ID :	4410095837504
Status :	Answered
Chosen Option :	B

Q.71	Which of the following ensures message integrity in network security?
Ans	A. Hash functions B. Encryption C. Firewalls D. Proxies

Question ID :	44100936014
Option 1 ID :	441009143579
Option 2 ID :	441009143578
Option 3 ID :	441009143580
Option 4 ID :	441009143581
Status :	Answered
Chosen Option :	A

Q.72 In the 8086 microprocessor, which of the following offset registers is added to one of the locations of Extra Segment (ES) to form a 20-bit physical address?

- Ans ☒ A. Destination Index
- ☐ B. Instruction Pointer
- ☐ C. Source Index
- ☐ D. Base Pointer

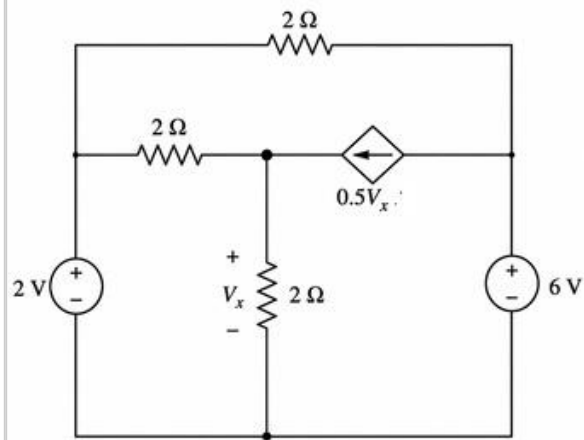
Question ID :	441009951191
Option 1 ID :	4410093758151
Option 2 ID :	4410093758149
Option 3 ID :	4410093758150
Option 4 ID :	4410093758152
Status :	Answered
Chosen Option :	B

Q.73 The stability of a discrete-time system depends on:

- Ans ☐ A. Zeros outside the unit circle
- ☐ B. Poles on the imaginary axis
- ☒ C. Poles inside the unit circle
- ☐ D. Zeros inside the unit circle

Question ID :	4410091424419
Option 1 ID :	4410095626529
Option 2 ID :	4410095626530
Option 3 ID :	4410095626528
Option 4 ID :	4410095626527
Status :	Answered
Chosen Option :	C

Q.74 For the circuit shown, determine the value of the voltage V_x .



- Ans ☒ A. 6 V
- ☒ B. 2 V
- ☒ C. 4 V
- ☒ D. 3 V

Question ID :	4410092267671
Option 1 ID :	4410098920584
Option 2 ID :	4410098920585
Option 3 ID :	4410098920583
Option 4 ID :	4410098920586
Status :	Answered
Chosen Option :	B

Q.75 In a pressure measuring instrument using a metallic diaphragm, what causes the pointer to move over the calibrated scale?

- Ans ☒ A. Rotation of the diaphragm housing
- ☒ B. Deflection of the metallic diaphragm due to applied pressure
- ☒ C. Temperature change in the diaphragm
- ☒ D. Vibration of the pressure inlet

Question ID :	4410091473304
Option 1 ID :	4410095821065
Option 2 ID :	4410095821063
Option 3 ID :	4410095821062
Option 4 ID :	4410095821064
Status :	Answered
Chosen Option :	B

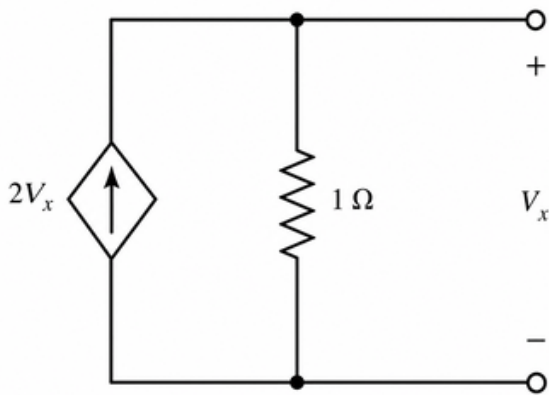
Q.76	Which component of CPU generates the control signals?
Ans	A. Cache Memory
	B. Arithmetic and Logic Unit
	C. Program Counter
	D. Microprogrammed Control Unit

Question ID :	4410091399098
Option 1 ID :	4410095526111
Option 2 ID :	4410095526110
Option 3 ID :	4410095526112
Option 4 ID :	4410095526109
Status :	Answered
Chosen Option :	D

Q.77	In a superheterodyne receiver, the intermediate frequency (IF) is typically chosen to be:
Ans	A. A frequency higher than the carrier frequency
	B. Equal to the carrier frequency
	C. A fixed frequency that is lower than the carrier frequency
	D. Zero

Question ID :	441009122959
Option 1 ID :	441009488748
Option 2 ID :	441009488745
Option 3 ID :	441009488747
Option 4 ID :	441009488746
Status :	Answered
Chosen Option :	A

Q.78 Norton equivalents(I_N , R_N) of the circuit represented in figure is:



- Ans
- ☒ A. $I_N=1A$, $R_N=1\Omega$
 - ☒ B. $I_N=1A$, $R_N=-1\Omega$
 - ☒ C. $I_N=0A$, $R_N=1\Omega$
 - ☒ D. $I_N=0A$, $R_N=-1\Omega$

Question ID :	4410092267682
Option 1 ID :	4410098920629
Option 2 ID :	4410098920628
Option 3 ID :	4410098920627
Option 4 ID :	4410098920630
Status :	Answered
Chosen Option :	B

Q.79 A resistor has a resistance of $64\ \Omega$ and a power rating of $4\ W$. What is the highest current it can safely carry without exceeding its power limit?

- Ans
- ☒ A. $0.30\ A$
 - ☒ B. $0.20\ A$
 - ☒ C. $0.25\ A$
 - ☒ D. $0.35\ A$

Question ID :	4410091200876
Option 1 ID :	4410094737254
Option 2 ID :	4410094737252
Option 3 ID :	4410094737253
Option 4 ID :	4410094737255
Status :	Answered
Chosen Option :	C

Q.80	In analog communication, what is the main benefit of representing a bandpass signal $x(t)$ by its complex envelope $x_L(t)$ during signal analysis?
Ans	A. It eliminates the need for a carrier frequency in transmission. B. It increases the signal's bandwidth for better accuracy. C. It allows the use of a much lower sampling frequency than required for original bandpass signal $x(t)$. D. It removes all noise from the modulated signal.

Question ID :	4410091442205
Option 1 ID :	4410095701676
Option 2 ID :	4410095701674
Option 3 ID :	4410095701675
Option 4 ID :	4410095701677
Status :	Answered
Chosen Option :	C

Q.81	Which type of feedback is required to stabilise the operating point of the BJT CE biased circuit?
Ans	A. AC negative feedback B. AC positive feedback C. DC positive feedback D. DC negative feedback

Question ID :	4410091184459
Option 1 ID :	4410094671849
Option 2 ID :	4410094671848
Option 3 ID :	4410094671850
Option 4 ID :	4410094671851
Status :	Answered
Chosen Option :	D

Q.82	In photolithography, which combination best describes the solubility behavior of positive and negative photoresists when exposed to ultraviolet light during the patterning process?
Ans	A. Positive photoresist becomes soluble, negative photoresist becomes insoluble B. Both positive and negative photoresists become soluble C. Negative photoresist becomes soluble, positive photoresist becomes insoluble D. Both positive and negative photoresists become insoluble

Question ID :	4410092269235
Option 1 ID :	4410098926742
Option 2 ID :	4410098926741
Option 3 ID :	4410098926739
Option 4 ID :	4410098926740
Status :	Answered
Chosen Option :	C

Q.83	A sinusoidal AC supply voltage of frequency f is connected to the purely resistive load. If the voltage is suddenly replaced by a triangular waveform of the same RMS value and frequency, how does the average power dissipated in the resistor change?
Ans	A. The average power increases
	B. The average power becomes zero

Question ID :	4410092267638
Option 1 ID :	4410098920454
Option 2 ID :	4410098920453
Option 3 ID :	4410098920451
Option 4 ID :	4410098920452
Status :	Answered
Chosen Option :	C

Q.84	If $x(at)$ is the time-scaled version of the signal $x(t)$, then which of the following statements is correct?
Ans	A. The signal $x(at)$ for $a > 1$ represents the time expansion and is wider in time than $x(t)$.
	B. The signal $x(at)$ for $a < 0, a \neq -1$ represents the time reversal along with the scaling.

Question ID :	4410091401382
Option 1 ID :	4410095534839
Option 2 ID :	4410095534840
Option 3 ID :	4410095534842
Option 4 ID :	4410095534841
Status :	Answered
Chosen Option :	B

Q.85 A remote village has abundant solar energy, negligible wind potential, and limited access to transported fuels. Which distributed generation (DG) option is the most suitable?

- Ans
- ☒ A. Diesel-generator-based microgrid with manual switching
 - ☒ B. Centralized hydro plant with long transmission lines
 - ☒ C. Wind-based microgrid with synchronous generator
 - ☒ D. Photovoltaic-based microgrid with battery backup

Question ID :	4410092267642
Option 1 ID :	4410098920470
Option 2 ID :	4410098920468
Option 3 ID :	4410098920469
Option 4 ID :	4410098920467
Status :	Answered
Chosen Option :	D

Q.86 Which of the following conditions facilitates the generation of a statically induced EMF?

- Ans
- ☒ A. The conductor and magnetic field are both moving together at the same speed.
 - ☒ B. The conductor is moving, and the magnetic field is constant.
 - ☒ C. The conductor is stationary, and the magnetic field is changing.
 - ☒ D. The conductor is stationary, and the magnetic field is constant.

Question ID :	441009620167
Option 1 ID :	4410092434799
Option 2 ID :	4410092434798
Option 3 ID :	4410092434796
Option 4 ID :	4410092434797
Status :	Answered
Chosen Option :	C

Q.87 Which of the following statements is correct, if we talk about software interrupts?

- Ans
- ☒ A. They always transfer control to a fixed memory location
 - ☒ B. They can be used to implement system calls in an operating system
 - ☒ C. They cannot be masked or disabled
 - ☒ D. They are generated by hardware to signal an external event

Question ID :	4410091434094
Option 1 ID :	4410095664910
Option 2 ID :	4410095664908
Option 3 ID :	4410095664909
Option 4 ID :	4410095664907
Status :	Answered
Chosen Option :	B

Q.88	A discrete-time signal $x[n]$ has a DTFT $X(e^{j\omega})$ that is non-zero only for the frequency range $-\frac{\pi}{4} \leq \omega \leq \frac{\pi}{4}$. What is the bandwidth of this signal?
Ans	A. $\frac{2\pi}{3}$
	B. $\frac{\pi}{4}$
	C. $\frac{\pi}{2}$
	D. π

Question ID :	4410091267548
Option 1 ID :	4410095002899
Option 2 ID :	4410095002898
Option 3 ID :	4410095002897
Option 4 ID :	4410095002896
Status :	Answered
Chosen Option :	C

Q.89	Digital signatures provide which of the following security features?
Ans	A. Confidentiality only
	B. Anonymity and privacy
	C. Data compression and error detection
	D. Message integrity and authentication

Question ID :	44100936037
Option 1 ID :	441009143670
Option 2 ID :	441009143672
Option 3 ID :	441009143671
Option 4 ID :	441009143669
Status :	Answered
Chosen Option :	D

Q.90	What is the role of a Hash Function in digital signatures?
Ans	☐ A. Compressing the message for transmission
	☐ B. Managing public and private keys
	☐ C. Encrypting the message
	☒ D. Generating a unique fingerprint of the message

Question ID :	44100936607
Option 1 ID :	441009145930
Option 2 ID :	441009145932
Option 3 ID :	441009145929
Option 4 ID :	441009145931
Status :	Answered
Chosen Option :	C

Q.91	How does a "Digital Signature" provide authentication and integrity?
Ans	☐ A. By sending a physical, scanned copy of a handwritten signature.
	☐ B. By creating a hash of the message and then encrypting the hash with the receiver's public key.
	☒ C. By creating a hash of the message and then encrypting the hash with the sender's private key.
	☐ D. By encrypting the entire message with the sender's public key.

Question ID :	4410091489590
Option 1 ID :	4410095884400
Option 2 ID :	4410095884399
Option 3 ID :	4410095884398
Option 4 ID :	4410095884397
Status :	Answered
Chosen Option :	B

Q.92	Which of the following statements correctly describes public key cryptography?
Ans	☐ A. It does not provide authentication, only encryption.
	☐ B. It uses the same key for both encryption and decryption.
	☒ C. It is slower than symmetric key cryptography due to complex mathematical operations.
	☐ D. The sender and receiver must share the secret key before communication begins.

Question ID :	44100935589
Option 1 ID :	441009141892
Option 2 ID :	441009141889
Option 3 ID :	441009141890
Option 4 ID :	441009141891
Status :	Answered
Chosen Option :	B

Q.93	During the silicon thermal oxidation process, which type of oxidation is preferred for growing thick masking oxide layers due to its higher growth rate, and which type is used for growing high-quality thin gate oxides because of its superior density and breakdown voltage?	
Ans	A. Dry oxidation for both layers	
	B. Wet oxidation for both layers	
	C. Wet oxidation for thick masking layers, dry oxidation for thin gate oxides	
	D. Dry oxidation for thick masking layers, wet oxidation for thin gate oxides	
Question ID : 4410092269234 Option 1 ID : 4410098926737 Option 2 ID : 4410098926738 Option 3 ID : 4410098926736 Option 4 ID : 4410098926735 Status : Answered Chosen Option : C		

Q.94	The difference equation $y[n]=0.5y[n-1]+x[n]$ is realised using which method?	
Ans	A. Feedback with feed-forward path	
	B. Only feed-forward coefficients	
	C. Zero coefficients for previous outputs	
	D. Only scaling	
Question ID : 4410091233432 Option 1 ID : 4410094867403 Option 2 ID : 4410094867402 Option 3 ID : 4410094867405 Option 4 ID : 4410094867404 Status : Answered Chosen Option : A		

Q.95	Determine the laplace transform of the signal $x(t) = t e^{-at} u(t)$.
Ans	✖ A. $\frac{1}{s^2}$
	✖ B. $\frac{1}{a}$
	✖ C. $\frac{1}{s+a}$
	✔ D. $\frac{1}{(s+a)^2}$

Question ID :	441009289940
Option 1 ID :	4410091126708
Option 2 ID :	4410091126710
Option 3 ID :	4410091126711
Option 4 ID :	4410091126709
Status :	Answered
Chosen Option :	D

Q.96	In a balanced star (Y) connected network where each resistor is 6 Ω, what is the value of each resistor in the equivalent delta (Δ) network?
Ans	✖ A. 2 Ω
	✖ B. 6 Ω
	✔ C. 18 Ω
	✖ D. 12 Ω

Question ID :	4410092267670
Option 1 ID :	4410098920580
Option 2 ID :	4410098920581
Option 3 ID :	4410098920582
Option 4 ID :	4410098920579
Status :	Answered
Chosen Option :	C

Q.97	In an 8085 microprocessor, a block transfer subroutine modifies HL and DE register pairs. How should their original contents be preserved using the stack?
Ans	A. PUSH D PUSH H ... POP D POP H
	B. PUSH H PUSH D ... POP D POP H
	C. PUSH H NOP ... POP H
	D. PUSH H PUSH D ... POP H POP D

Question ID :	4410092267657
Option 1 ID :	4410098920528
Option 2 ID :	4410098920529
Option 3 ID :	4410098920530
Option 4 ID :	4410098920527
Status :	Answered
Chosen Option :	B

Q.98	In which of the following variations of RAM does the capacitor store a single bit of data?
Ans	A. TRAM
	B. SRAM
	C. PRAM
	D. DRAM

Question ID :	4410091433981
Option 1 ID :	4410095664460
Option 2 ID :	4410095664459
Option 3 ID :	4410095664462
Option 4 ID :	4410095664461
Status :	Answered
Chosen Option :	D

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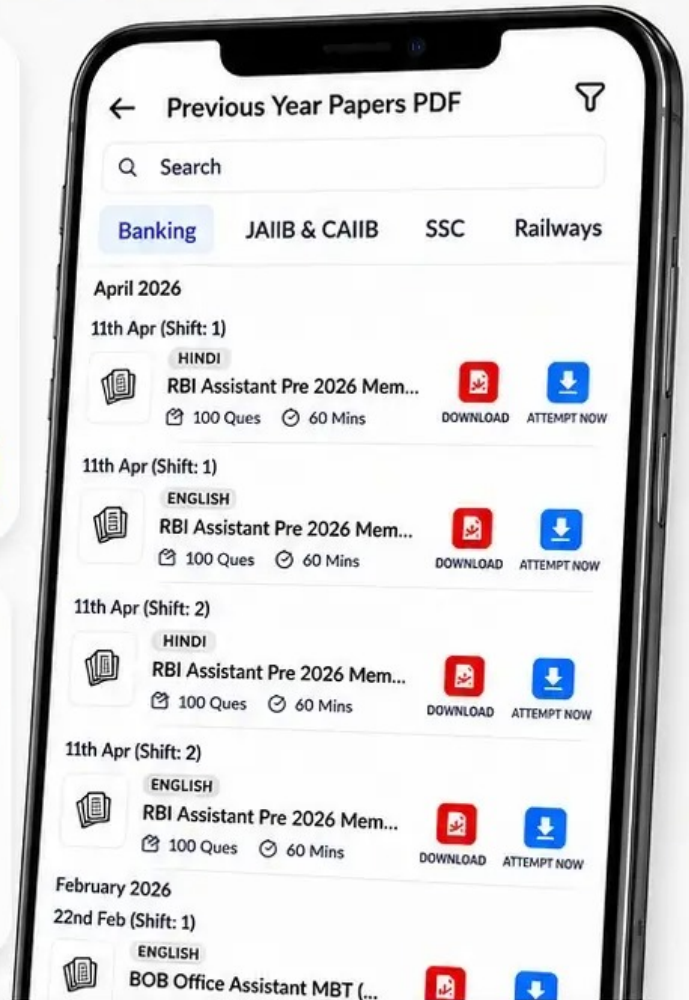
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Nancy, UGC NET



Atul, SSC JE (ELCT)



Rahul, SSC JE (CIVIL)



Anand, SSC JE (ELCT)



Mohan, SSC JE (ELCT)



Saurabh, UGC NET



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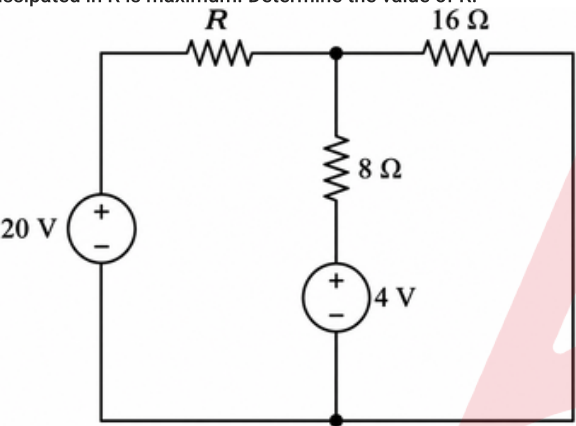
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Q.99	Determine the magnitude of change in DC control voltage during VCO lock, if the input signal frequency = 20kHz, the free-running frequency of VCO, $f_0 = 21\text{kHz}$, and the voltage-to-frequency transfer coefficient of the VCO, = 4kHz/V.
Ans	A. 2.5 V B. 0.25 V C. 0.4 V D. 0.1 V

Question ID :	4410091276679
Option 1 ID :	4410095038949
Option 2 ID :	4410095038947
Option 3 ID :	4410095038948
Option 4 ID :	4410095038950
Status :	Answered
Chosen Option :	B

Q.100	For the given DC network, the value of resistor R is adjusted so that the power dissipated in R is maximum. Determine the value of R.
	

Ans	A. 4 Ω B. 5.33 Ω C. 24 Ω D. 12 Ω
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Question ID :	4410092267681
Option 1 ID :	4410098920623
Option 2 ID :	4410098920624
Option 3 ID :	4410098920626
Option 4 ID :	4410098920625
Status :	Answered
Chosen Option :	B