Q.2	The average of 8 numbers is 55. If each number is increased by 5, what will the new average be?4567
Ans	✗ A. 55
	✗ B. 8
	✗ C. 65
	✓ D. 60

Question ID :	441009581471
Option 1 ID :	4410092281011
Option 2 ID :	4410092281013
Option 3 ID :	4410092281012
Option 4 ID :	4410092281010
Status :	Not Answered
Chosen Option :	--

Q.3	In an election between two candidates 90% of the registered voters cast their vote and 20% of the votes polled were found invalid. The winning candidate got 55% of the valid votes and won the election by a margin of 10,710 votes. How many voters were registered? 7015
Ans	✗ A. 1,48,780
	✓ B. 1,48,750
	✗ C. 1,48,740
	✗ D. 1,48,770

Question ID :	441009545342
Option 1 ID :	4410092136765
Option 2 ID :	4410092136764
Option 3 ID :	4410092136767
Option 4 ID :	4410092136766
Status :	Not Answered
Chosen Option :	--

Q.4	We need 100 litres of a 25% sugar solution, but we only have a 14% solution and a 60% solution. How much of each should we mix to obtain 100 litres of the 25% solution? (Round answers to the nearest integer.)
Ans	✗ A. 14% solution: 55 litres and 60% solution: 45 litres
	✗ B. 14% solution: 83 litres and 60% solution: 17 litres
	✓ C. 14% solution: 76 litres and 60% solution: 24 litres
	✗ D. 14% solution: 67 litres and 60% solution: 33 litres

Question ID :	4410091223976
Option 1 ID :	4410094829329
Option 2 ID :	4410094829330
Option 3 ID :	4410094829327
Option 4 ID :	4410094829328
Status :	Not Answered
Chosen Option :	--

Q.5	**Mr. Anil swims14 km downstream and 10 km upstream. If he takes 120 minutes each side, what is his speed in still water and speed of the stream, respectively?**
Ans	✔ A. 6 km/hr and 1 km/hr
	✘ B. 7 km/hr and 2 km/hr
	✘ C. 5 km/hr and 2 km/hr
	✘ D. 4 km/hr and 3 km/hr

Question ID :	**441009542588**
Option 1 ID :	**4410092125748**
Option 2 ID :	**4410092125749**
Option 3 ID :	**4410092125750**
Option 4 ID :	**4410092125751**
Status :	**Not Answered**
Chosen Option :	**--**

Q.6	**A dealer buys two articles X and Y for ₹1,000 each. He marks each of them at the same price. He sells X by giving two successive discounts of 15% and 20% and still earns ₹341 as profit. If he sells Y at a single discount of 32%, then what is the profit percentage on Y?**
Ans	✘ A. 34%
	✘ B. 33.1%
	✘ C. 33%
	✔ D. 34.1%

Question ID :	**441009915559**
Option 1 ID :	**4410093616488**
Option 2 ID :	**4410093616489**
Option 3 ID :	**4410093616490**
Option 4 ID :	**4410093616487**
Status :	**Not Answered**
Chosen Option :	**--**

Q.7	The radius of a sphere is 10 cm more than the radius of a smaller sphere. The surface area of the larger sphere is 3520 cm^2 more than the surface area of the smaller sphere. What is the diameter (in cm) of the larger sphere? $\left(\text{Use } \pi = \frac{22}{7}\right)$
Ans	✗ A. 34
	✓ B. 38
	✗ C. 36
	✗ D. 40

Question ID :	**441009599738**
Option 1 ID :	**4410092354072**
Option 2 ID :	**4410092354069**
Option 3 ID :	**4410092354070**
Option 4 ID :	**4410092354071**
Status :	**Not Answered**
Chosen Option :	**--**

Q.8	A person borrows ₹58,400 at 20% compound interest per year, compounded annually. At the end of every year, he pays ₹2,300 as part payment. How much does he still owe after two such installments?
Ans	✗ A. ₹78,904
	✗ B. ₹79,218
	✗ C. ₹79,068
	✓ D. ₹79,036

Question ID :	**441009570657**
Option 1 ID :	**4410092237750**
Option 2 ID :	**4410092237749**
Option 3 ID :	**4410092237751**
Option 4 ID :	**4410092237748**
Status :	**Not Answered**
Chosen Option :	**--**

Q.9	A man sells a mobile phone for ₹600 and loses some money. If he had sold it for ₹1,230, his gain would have been 3.2 times the nominal loss he has actually incurred. The cost price (in ₹) of the mobile phone is:
Ans	✗ A. 770
	✗ B. 780
	✓ C. 750
	✗ D. 730

Question ID :	**441009836079**
Option 1 ID :	**4410093297434**
Option 2 ID :	**4410093297435**
Option 3 ID :	**4410093297432**
Option 4 ID :	**4410093297433**
Status :	**Not Answered**
Chosen Option :	**--**

Q.10	**Two persons, A and B, can do a piece of work in 12 and 16 days, respectively. They worked together for 6 days, and then A left. After that, B took the help of another worker, C, and completed the remaining work in 1 day. If C works alone, in how many days can he complete the same piece of work?**
Ans	✗ A. 20
	✓ B. 16
	✗ C. 15
	✗ D. 18

Question ID :	**44100967278**
Option 1 ID :	**441009267862**
Option 2 ID :	**441009267864**
Option 3 ID :	**441009267863**
Option 4 ID :	**441009267865**
Status :	**Not Answered**
Chosen Option :	**--**

Q.11	**Evaluate.** **[(4 × 2) − (10 ÷ 5)] + 9**
Ans	✗ A. 16
	✗ B. 17
	✗ C. 14
	✓ D. 15

Question ID :	**441009524180**
Option 1 ID :	**4410092052141**
Option 2 ID :	**4410092052142**
Option 3 ID :	**4410092052140**
Option 4 ID :	**4410092052139**
Status :	**Answered**
Chosen Option :	**D**

Q.12	The value of 2.6666... + 1.0909... - 1.1111... is:
Ans	✗ A. $\frac{263}{100}$
	✓ B. $\frac{262}{99}$
	✗ C. $\frac{263}{98}$
	✗ D. $\frac{266}{107}$

Question ID :	**441009914260**
Option 1 ID :	**4410093611293**
Option 2 ID :	**4410093611291**
Option 3 ID :	**4410093611292**
Option 4 ID :	**4410093611294**
Status :	**Not Answered**
Chosen Option :	**--**

Section : **Reasoning**

Q.1	KP 13 is related to FL -3 in a certain way. In the same way, NE 20 is related to IA 4. To which of the following is UW 24 related, following the same logic?
Ans	✓ A. PS 8
	✗ B. QT 6
	✗ C. QS 6
	✗ D. PT 8

Question ID :	**441009787672**
Option 1 ID :	**4410093104687**
Option 2 ID :	**4410093104690**
Option 3 ID :	**4410093104688**
Option 4 ID :	**4410093104689**
Status :	**Not Answered**
Chosen Option :	**--**

Q.2	**Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?** **(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)**
Ans	✔ A. LOR
	✘ B. ORT
	✘ C. JMO
	✘ D. DGI

Question ID :	**441009790808**
Option 1 ID :	**4410093117231**
Option 2 ID :	**4410093117232**
Option 3 ID :	**4410093117234**
Option 4 ID :	**4410093117233**
Status :	**Answered**
Chosen Option :	**A**

Q.3	**Seven people J, K, L, M, Q, R, and S are sitting around a circular table facing the centre of the table. Only two people sit between Q and M when counted from the right of Q. Only three people sit between K and R when counted from the right of R. L sits to the immediate right of K. J is an immediate neighbour of R as well as M. Who sits second to the right of S?**
Ans	✘ A. Q
	✘ B. R
	✔ C. L
	✘ D. J

Question ID :	**441009788587**
Option 1 ID :	**4410093108349**
Option 2 ID :	**4410093108347**
Option 3 ID :	**4410093108350**
Option 4 ID :	**4410093108348**
Status :	**Answered**
Chosen Option :	**D**

Q.4	What will come in place of the question mark (?) in the following equation, if '+' and '−' are interchanged and '×' and '÷' are interchanged? 4 ÷ 2 + 30 × 3 − 5 = ? + 15
Ans	✗ A. 16
	✗ B. 20
	✓ C. 18
	✗ D. 22

Question ID :	**441009555522**
Option 1 ID :	**4410092177402**
Option 2 ID :	**4410092177404**
Option 3 ID :	**4410092177403**
Option 4 ID :	**4410092177405**
Status :	**Not Answered**
Chosen Option :	**--**

Q.5	Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (Left) 2 € 5 7 ¥ 3 ◇ 8 $ 4 1 ~ @ 9 # ! 1 £ 4☆ 2 $ 6 3 5 & 7 (Right) How many such symbols are there that are immediately preceded by an odd number but not immediately followed by an even number?
Ans	✗ A. Three
	✓ B. Four
	✗ C. Six
	✗ D. Five

Question ID :	**44100969686**
Option 1 ID :	**441009277402**
Option 2 ID :	**441009277401**
Option 3 ID :	**441009277399**
Option 4 ID :	**441009277400**
Status :	**Answered**
Chosen Option :	**C**

Q.6	What should come in place of the question mark (?) in the given series based on the English alphabetical order? ULA PND KPG FRJ ?
Ans	✗ A. BSL
	✗ B. BTM
	✓ C. ATM
	✗ D. ASL

Question ID :	**4410091444739**
Option 1 ID :	**4410095707566**
Option 2 ID :	**4410095707568**
Option 3 ID :	**4410095707567**
Option 4 ID :	**4410095707565**
Status :	**Answered**
Chosen Option :	**C**

Q.7	What will come in the place of the question mark (?) in the following equation, if '+' and '−' are interchanged and '×' and '÷' are interchanged? 101 ÷ 18 + 1515 × 15 − 19 = ?
Ans	✓ A. 1736
	✗ B. 1744
	✗ C. 1741
	✗ D. 1727

Question ID :	**441009529107**
Option 1 ID :	**4410092071833**
Option 2 ID :	**4410092071835**
Option 3 ID :	**4410092071834**
Option 4 ID :	**4410092071832**
Status :	**Not Answered**
Chosen Option :	**--**

Q.8	Select the pair which follows the same pattern as that followed by the two sets of pairs given below. Both pairs follow the same pattern. BSW : GXT LCQ : QHN
Ans	✓ A. VMK : ARH
	✗ B. STK : XWH
	✗ C. FUQ : KYN
	✗ D. CTJ : GWH

Question ID :	**441009780922**
Option 1 ID :	**4410093077692**
Option 2 ID :	**4410093077691**
Option 3 ID :	**4410093077693**
Option 4 ID :	**4410093077694**
Status :	**Not Answered**
Chosen Option :	**--**

Q.9	**Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?** **(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)**
Ans	✗ A. SQLF
	✗ B. AYTN
	✓ C. QPID
	✗ D. ECXR

Question ID :	**441009774113**
Option 1 ID :	**4410093050458**
Option 2 ID :	**4410093050455**
Option 3 ID :	**4410093050456**
Option 4 ID :	**4410093050457**
Status :	**Answered**
Chosen Option :	**C**

Q.10	**Refer to the following series and answer the question that follows. Counting to be done from left to right only. All numbers are single-digit numbers.** **(Left) 6 9 5 9 2 6 4 6 6 5 4 8 5 3 1 9 2 3 4 7 1 (Right)** **How many such even digits are there, each of which is immediately preceded by a perfect square and also immediately followed by an even digit?** **(NOTE: 1 is also a perfect square.)**
Ans	✗ A. One
	✗ B. Four
	✗ C. Three
	✓ D. Two

Question ID :	**441009793899**
Option 1 ID :	**4410093129595**
Option 2 ID :	**4410093129598**
Option 3 ID :	**4410093129597**
Option 4 ID :	**4410093129596**
Status :	**Answered**
Chosen Option :	**C**

Q.11	In a certain code language, 'WINE' is coded as '3478' and 'NEWS' is coded as '7364'. How is 'S' coded in that language?
Ans	✔ A. 6
	✘ B. 7
	✘ C. 4
	✘ D. 3

Question ID :	**441009150705**
Option 1 ID :	**441009598058**
Option 2 ID :	**441009598056**
Option 3 ID :	**441009598059**
Option 4 ID :	**441009598057**
Status :	**Answered**
Chosen Option :	**C**

Q.12	Seven boxes, I, J, K, L, B, C and D, are kept one over the other but not necessarily in the same order. Only three boxes are kept between B and C. Only five boxes are kept above B. K is kept at one of the positions below B. Only D is kept between C and J. I is kept at one of the positions above C. How many boxes are kept between L and C?
Ans	✘ A. Three
	✔ B. Two
	✘ C. One
	✘ D. Four

Question ID :	**441009150677**
Option 1 ID :	**441009597946**
Option 2 ID :	**441009597945**
Option 3 ID :	**441009597944**
Option 4 ID :	**441009597947**
Status :	**Not Answered**
Chosen Option :	**--**

Q.13	Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only. (Left) T / P Z D & L Y P % = X / O \ E / M O U M (Right) How many such symbols are there each of which is immediately preceded by a symbol and also immediately followed by a letter?
Ans	✗ A. None
	✗ B. Three
	✗ C. Two
	✓ D. One

Question ID :	**4410096528**
Option 1 ID :	**44100925863**
Option 2 ID :	**44100925866**
Option 3 ID :	**44100925865**
Option 4 ID :	**44100925864**
Status :	**Answered**
Chosen Option :	**C**

Section : **Question Based on Computer Science Engineering**

Q.1	For the grammar below, what is FIRST(S)? S→aA|bB
Ans	✗ A. {a}
	✗ B. {b}
	✗ C. {ε}
	✓ D. {a, b}

Question ID :	**4410091479907**
Option 1 ID :	**4410095846726**
Option 2 ID :	**4410095846727**
Option 3 ID :	**4410095846729**
Option 4 ID :	**4410095846728**
Status :	**Answered**
Chosen Option :	**D**

Q.2	**Which of the following shows the correct order of the four main activities in the Requirements Engineering process?**
Ans	✗ A. Requirements specification → Requirements elicitation → Feasibility study → Requirements validation
	✗ B. Requirements validation → Requirements elicitation → Feasibility study → Requirements specification
	✗ C. Requirements elicitation → Requirements validation → Feasibility study → Requirements specification
	✓ D. Feasibility study → Requirements elicitation and analysis → Requirements specification → Requirements validation

Question ID :	**4410091464431**
Option 1 ID :	**4410095785938**
Option 2 ID :	**4410095785940**
Option 3 ID :	**4410095785941**
Option 4 ID :	**4410095785939**
Status :	**Answered**
Chosen Option :	**D**

Q.3	**A network provides a connectionless service. Which of the following statements must hold true?**
Ans	✗ A. The network layer maintains state information for each session.
	✗ B. Reliability is guaranteed at the transport layer.
	✓ C. Each packet is treated independently and may arrive out of order.
	✗ D. Packets always follow the same route between source and destination.

Question ID :	**4410091470676**
Option 1 ID :	**4410095810628**
Option 2 ID :	**4410095810630**
Option 3 ID :	**4410095810629**
Option 4 ID :	**4410095810627**
Status :	**Answered**
Chosen Option :	**C**

Q.4	**In one's complement form, what does the MSB (Most Significant Bit) indicate?**
Ans	✗ A. The parity of the number
	✗ B. Whether the number is even or odd
	✓ C. The sign of the number
	✗ D. The number of bits in the binary number

Question ID :	**4410091449445**
Option 1 ID :	**4410095726247**
Option 2 ID :	**4410095726245**
Option 3 ID :	**4410095726246**
Option 4 ID :	**4410095726244**
Status :	**Answered**
Chosen Option :	**D**

Q.5	**In the context of digital imaging, resolution mainly refers to which measurement?**
Ans	✗ A. Colour harmony per inches
	✗ B. File compression ratio
	✓ C. Number of pixels per dimension
	✗ D. Screen brightness per inches

Question ID :	**4410091476004**
Option 1 ID :	**4410095831310**
Option 2 ID :	**4410095831311**
Option 3 ID :	**4410095831313**
Option 4 ID :	**4410095831312**
Status :	**Answered**
Chosen Option :	**C**

Q.6	**A researcher applies a density-based clustering algorithm to detect patterns in a dataset containing noise and arbitrarily shaped clusters. The results show that the algorithm successfully identifies clusters of varying shapes but struggles when the dataset contains clusters with varying densities. Which of the following best explains the reason for this limitation?**
Ans	✗ A. Density-based methods require clusters to be spherical and well-separated.
	✗ B. The algorithm cannot distinguish between core points and border points in dense regions.
	✓ C. The algorithm assumes a global density threshold, making it difficult to detect clusters with different densities.
	✗ D. Density-based methods merge all data points into one cluster when noise is present.

Question ID :	**4410091448439**
Option 1 ID :	**4410095722240**
Option 2 ID :	**4410095722243**
Option 3 ID :	**4410095722241**
Option 4 ID :	**4410095722242**
Status :	**Not Answered**
Chosen Option :	**--**

Q.7	**During an SMTP session, a client communicates with a mail server to send an email.** **Consider the following sequence of SMTP commands and responses observed in a network trace:** **S: 220 mail.example.com ESMTP Postfix** **C: HELO client.host.com** **S: 250 mail.example.com Hello client.host.com** **C: MAIL FROM:<alice@example.com>** **S: 250 OK** **C: RCPT TO:<bob@example.net>** **S: 550 No such user here** **C: RCPT TO:<carol@example.net>** **S: 250 OK** **C: DATA** **S: 354 End data with <CR><LF>.<CR><LF>** **C: [message body]** **C: .** **S: 250 Message accepted for delivery** **C: QUIT** **S: 221 Bye** **Based on the SMTP protocol rules, which of the following statements is most accurate about this interaction?**
Ans	✔ A. The client successfully sent the message, but it will only be delivered to Carol, since Bob's address was rejected.
	✘ B. The client successfully delivered the message to all recipients, including Bob and Carol.
	✘ C. The server rejected the entire message because one recipient was invalid.
	✘ D. The SMTP session was invalid because the client did not issue the EHLO command.

Question ID :	**4410091433738**
Option 1 ID :	**4410095663494**
Option 2 ID :	**4410095663493**
Option 3 ID :	**4410095663492**
Option 4 ID :	**4410095663495**
Status :	**Not Answered**
Chosen Option :	**--**

Q.8	**A table Account is defined as:** **CREATE TABLE Account (** **AccNo INT PRIMARY KEY,** **Balance DECIMAL(10,2) CHECK (Balance >= 500)** **);** **Which sequence of operations violates data integrity without violating entity integrity?**
Ans	✔ A. Updating balance to 200
	✘ B. Deleting an existing record
	✘ C. Inserting a NULL value into AccNo
	✘ D. Inserting a duplicate AccNo value

Question ID :	**4410091470549**
Option 1 ID :	**4410095810121**
Option 2 ID :	**4410095810122**
Option 3 ID :	**4410095810119**
Option 4 ID :	**4410095810120**
Status :	**Answered**
Chosen Option :	**C**

Q.9	**In user interface (UI) design, which of the following principles best prevents cognitive overload and enhances usability during task execution?**
Ans	✔ A. Applying consistent layout patterns and progressive disclosure of information
	✘ B. Reducing feedback messages to avoid distraction
	✘ C. Using diverse visual styles to maintain user engagement
	✘ D. Maximising information density on every screen to minimise navigation

Question ID :	**4410091476099**
Option 1 ID :	**4410095831698**
Option 2 ID :	**4410095831701**
Option 3 ID :	**4410095831700**
Option 4 ID :	**4410095831699**
Status :	**Not Answered**
Chosen Option :	**--**

Q.10	**A digital circuit uses three inputs A, B and C connected to a combination of XOR gates as follows:** **The output expression is given by:** **Y=(A⊕B)⊕(B⊕C)** **Which of the following Boolean expressions correctly represents the simplified output (Y) in terms of A, B and C?**
Ans	✔ A. Y=A⊕C
	✘ B. Y=A+B+C
	✘ C. Y=A⊕C⊕B
	✘ D. Y=A′B+AB′+BC′+B′C

Question ID :	**4410091435290**
Option 1 ID :	**4410095669692**
Option 2 ID :	**4410095669695**
Option 3 ID :	**4410095669694**
Option 4 ID :	**4410095669693**
Status :	**Answered**
Chosen Option :	**A**

Q.11	**Which statement correctly reads a string from a text file into a character array str?**
Ans	✘ A. read(fp, str, sizeof(str));
	✘ B. fscanf(fp, "%s", &str);
	✘ C. fgetc(fp, str);
	✔ D. fgets(str, sizeof(str), fp);

Question ID :	**4410091467388**
Option 1 ID :	**4410095797493**
Option 2 ID :	**4410095797491**
Option 3 ID :	**4410095797494**
Option 4 ID :	**4410095797492**
Status :	**Not Answered**
Chosen Option :	**--**

Q.12	Let Σ = {a, b}. Define: **R_1 = (a + b) b (a + b)** **R_2 = (a + b) a (a + b)** *R_3 = (a + b) b (a + b)*** *R_4 = (a + b) (aa + bb) (a + b)** Define F(R) as the language denoted by R using the usual recursive rules: F(a) = {a}, F(b) = {b}, F(ε) = {ε} F(R1 + R2) = F(R1) ∪ F(R2) F(R1R2) = F(R1) · F(R2) F(R)* = (F(R))* Which of the following statements about the equivalence of these regular expressions is true?
Ans	✗ A. $F(R_1) \cup F(R_2) = \Sigma^2$.
	✗ B. $F(R_1) = F(R_2)$
	✗ C. $F(R_4) \subseteq F(R_3)$.
	✓ D. $F(R_3) = \Sigma^* \setminus a^*$

Question ID :	**4410091460629**
Option 1 ID :	**4410095770695**
Option 2 ID :	**4410095770693**
Option 3 ID :	**4410095770694**
Option 4 ID :	**4410095770696**
Status :	**Answered**
Chosen Option :	**C**

Q.13	Which of the following is NOT a valid location for source or result operands in a computer system?
Ans	✗ A. Main or virtual memory
	✗ B. Immediate value within the instruction
	✗ C. Processor register
	✓ D. Control Unit buffer

Question ID :	**4410091453888**
Option 1 ID :	**4410095743853**
Option 2 ID :	**4410095743855**
Option 3 ID :	**4410095743854**
Option 4 ID :	**4410095743856**
Status :	**Answered**
Chosen Option :	**A**

Q.14	Match each data type category with its default value when initialised by the default constructor in Java.

Column A (Data Type)	Column B (Default Value)
1. Numeric types (int, long, double)	a. false
2. Reference types (objects, arrays)	b. 0
3. Boolean type	c. null

Ans	✔ A. 1–b, 2–c, 3–a
	✘ B. 1–c, 2–b, 3–a
	✘ C. 1–b, 2–a, 3–c
	✘ D. 1–a, 2–b, 3–c

Question ID :	**4410091464260**
Option 1 ID :	**4410095785266**
Option 2 ID :	**4410095785268**
Option 3 ID :	**4410095785269**
Option 4 ID :	**4410095785267**
Status :	**Answered**
Chosen Option :	**A**

Q.15	Which of the following statements about Software Engineering is most accurate according to its core principles?
Ans	✘ A. Software Engineering principles apply only to large-scale industrial projects, not small software systems.
	✘ B. Software Engineering focuses mainly on programming efficiency rather than maintenance and scalability.
	✔ C. Software Engineering emphasises systematic, disciplined and quantifiable approaches to software development, operation and maintenance.
	✘ D. Software Engineering is concerned only with hardware-software integration during system design.

Question ID :	**4410091446229**
Option 1 ID :	**4410095713571**
Option 2 ID :	**4410095713568**
Option 3 ID :	**4410095713569**
Option 4 ID :	**4410095713570**
Status :	**Answered**
Chosen Option :	**C**

Q.16	Which of the following applications makes the greatest use of polymorphism?
Ans	✔ A. Game development
	✘ B. Data entry forms
	✘ C. Spreadsheet calculations
	✘ D. Text editing

Question ID :	**4410091489882**
Option 1 ID :	**4410095885565**
Option 2 ID :	**4410095885568**
Option 3 ID :	**4410095885567**
Option 4 ID :	**4410095885566**
Status :	**Not Answered**
Chosen Option :	**--**

Q.17	Which of the following statements is most accurate about the learning process in a feedforward neural network that is trained using backpropagation?
Ans	✘ A. Weight updates depend only on the current input vector.
	✘ B. The output layer weights are updated randomly to prevent overfitting.
	✘ C. Hidden layer weights remain constant during training to maintain stability.
	✔ D. Error gradients are propagated backward layer by layer to adjust weights.

Question ID :	**4410091476190**
Option 1 ID :	**4410095832066**
Option 2 ID :	**4410095832068**
Option 3 ID :	**4410095832069**
Option 4 ID :	**4410095832067**
Status :	**Not Answered**
Chosen Option :	**--**

Q.18	Which of the following best reflects the primary responsibility of the Internet Layer in the TCP/IP suite?
Ans	✘ A. Defining the physical transmission characteristics of network signals
	✘ B. Establishing reliable virtual circuits between source and destination hosts
	✔ C. Providing logical addressing and best-effort packet delivery across interconnected networks
	✘ D. Managing application-level session recovery in case of failure

Question ID :	**4410091445834**
Option 1 ID :	**4410095711974**
Option 2 ID :	**4410095711973**
Option 3 ID :	**4410095711975**
Option 4 ID :	**4410095711976**
Status :	**Answered**
Chosen Option :	**D**

Q.19 Consider the following C program that creates and traverses a singly linked list. What will be the output?

```
#include <stdio.h>
#include <stdlib.h>

struct Node {
int data;
struct Node *next;
};

int main() {
struct Node *head, *second, *third;

head = (struct Node*)malloc(sizeof(struct Node));
second = (struct Node*)malloc(sizeof(struct Node));
third = (struct Node*)malloc(sizeof(struct Node));

head->data = 5;
head->next = second;

second->data = 10;
second->next = third;

third->data = 15;
third->next = NULL;

struct Node *ptr = head;
while (ptr != NULL) {
printf("%d ", ptr->data);
ptr = ptr->next->next;
}

return 0;
}
```

Ans

- ✗ A. 5 10
- ✗ B. 5 10 15
- ✓ C. Segmentation fault (runtime error)
- ✗ D. 5 15

Question ID :	**4410091428300**
Option 1 ID :	**4410095641733**
Option 2 ID :	**4410095641731**
Option 3 ID :	**4410095641734**
Option 4 ID :	**4410095641732**
Status :	**Answered**
Chosen Option :	**D**

Q.20	A data analyst is using **supervised machine learning** to study the relationship between **advertising budget (in ₹)** and **sales revenue (in ₹)** for a retail company. He uses **linear regression** to predict sales based on the advertising budget. Later, he wants to predict whether a customer will make a purchase (Yes/No) based on features like age, income and browsing time. Which of the following statements correctly distinguishes **regression** from **classification** in these contexts?
Ans	✗ A. Regression predicts categorical outputs, while classification predicts numerical values.
	✗ B. Regression models cannot be used for numerical data, whereas classification models can.
	✗ C. Regression minimises the difference between predicted and actual class labels, while classification minimises the mean squared error.
	✓ D. Regression uses continuous dependent variables, while classification uses discrete dependent variables.

Question ID :	**4410091444061**
Option 1 ID :	**4410095704845**
Option 2 ID :	**4410095704848**
Option 3 ID :	**4410095704846**
Option 4 ID :	**4410095704847**
Status :	**Not Answered**
Chosen Option :	**--**

Q.21	In multimedia communication, what does synchronisation mean?
Ans	✗ A. Sending data at random times
	✓ B. Aligning audio and video to play together correctly
	✗ C. Compressing files
	✗ D. Encrypting messages

Question ID :	**4410091479981**
Option 1 ID :	**4410095847018**
Option 2 ID :	**4410095847019**
Option 3 ID :	**4410095847020**
Option 4 ID :	**4410095847021**
Status :	**Answered**
Chosen Option :	**B**

Q.22	In SQL, what does the command `ALTER TABLE r ADD A D;` do?
Ans	✔ A. Adds a new attribute A of data type D to table r.
	✘ B. Renames the attribute A in table r.
	✘ C. Deletes attribute A from table r.
	✘ D. Adds a new tuple named A to table r.

Question ID :	**4410091441810**
Option 1 ID :	**4410095695890**
Option 2 ID :	**4410095695891**
Option 3 ID :	**4410095695892**
Option 4 ID :	**4410095695889**
Status :	**Answered**
Chosen Option :	**B**

Q.23	Which data structure is most useful for implementing the symbol table during lexical analysis?
Ans	✘ A. Stack
	✘ B. Linked List
	✔ C. Hash Table
	✘ D. Queue

Question ID :	**4410091479881**
Option 1 ID :	**4410095846623**
Option 2 ID :	**4410095846622**
Option 3 ID :	**4410095846624**
Option 4 ID :	**4410095846625**
Status :	**Answered**
Chosen Option :	**A**

Q.24 **Even though Multilayer Feed-Forward Neural Networks are widely used in various fields, they have inherent limitations.**
Match the listed limitations in Column A with their corresponding implications or effects in Column B.

Column A (Limitation)	Column B (Implication / Effect)
1. Absence of cycles (no feedback connections)	a. The network cannot correct earlier-stage errors through back propagation
2. Information about neighborhood may be lost	b. Causes repetitive reprocessing of all computation steps
3. Lack of support for back propagation	c. Prevents the model from retaining temporal or contextual dependencies
4. Need to recompute all steps when data changes	d. Leads to inefficiency in iterative learning or dynamic input updates

Ans

✗ A. 1–b, 2–a, 3–d, 4–c

✗ B. 1–a, 2–c, 3–b, 4–d

✓ C. 1–c, 2–d, 3–a, 4–b

✗ D. 1–c, 2–a, 3–b, 4–d

Question ID :	**4410091467344**
Option 1 ID :	**4410095797316**
Option 2 ID :	**4410095797317**
Option 3 ID :	**4410095797318**
Option 4 ID :	**4410095797315**
Status :	**Not Answered**
Chosen Option :	**--**

Q.25 **What is called a textual, language-independent description of an algorithm used to plan and understand a solution?**

Ans

✗ A. Program

✗ B. Compiler

✓ C. Pseudocode

✗ D. Flowchart

Question ID :	**4410091434672**
Option 1 ID :	**4410095667242**
Option 2 ID :	**4410095667245**
Option 3 ID :	**4410095667244**
Option 4 ID :	**4410095667243**
Status :	**Answered**
Chosen Option :	**D**

Q.26	Which option most clearly highlights why the Software Engineering discipline is essential for large software projects development?
Ans	✔ A. It provides structured processes that improve reliability, maintainability and scalability.
	✘ B. It ensures faster coding irrespective of complexity using the automated tools.
	✘ C. It eliminates the need for documentation and design reviews to reduce the overall software cost.
	✘ D. It guarantees zero defects through automated testing.

Question ID :	**4410091476073**
Option 1 ID :	**4410095831592**
Option 2 ID :	**4410095831591**
Option 3 ID :	**4410095831593**
Option 4 ID :	**4410095831590**
Status :	**Answered**
Chosen Option :	**A**

Q.27	Which of the following is a default port number for FTP?
Ans	✘ A. 23
	✔ B. 21
	✘ C. 24
	✘ D. 22

Question ID :	**441009293442**
Option 1 ID :	**4410091140646**
Option 2 ID :	**4410091140644**
Option 3 ID :	**4410091140647**
Option 4 ID :	**4410091140645**
Status :	**Answered**
Chosen Option :	**B**

Q.28	A data scientist is developing a predictive model for loan default detection using a dataset that contains labelled examples of previous loan applications marked as 'defaulted' or 'not defaulted'. However, during model training, the algorithm shows very high accuracy on training data but performs poorly on new unseen test data. Despite adding more labelled data, the issue persists. Which of the following best explains the underlying problem in the supervised learning process?
Ans	✘ A. The model applies an unsupervised clustering technique instead of classification.
	✔ B. The model suffers from overfitting due to poor generalisation.
	✘ C. The algorithm fails due to lack of a defined loss function.
	✘ D. The dataset lacks sufficient labelling for supervised learning.

Question ID :	**4410091448353**
Option 1 ID :	**4410095721902**
Option 2 ID :	**4410095721900**
Option 3 ID :	**4410095721903**
Option 4 ID :	**4410095721901**
Status :	**Not Answered**
Chosen Option :	**--**

Q.29	Which of the following is NOT a limitation of DBSCAN?
Ans	✔ A. Requirement to predefine number of clusters
	✘ B. Poor performance on varying density datasets
	✘ C. High sensitivity to noise
	✘ D. Difficulty in finding optimal ε and minPts

Question ID :	**4410091490581**
Option 1 ID :	**4410095888351**
Option 2 ID :	**4410095888349**
Option 3 ID :	**4410095888350**
Option 4 ID :	**4410095888348**
Status :	**Not Answered**
Chosen Option :	**--**

Q.30	What is the function of the control bus in a computer system?
Ans	✘ A. To carry memory addresses
	✘ B. To connect peripheral devices
	✘ C. To carry data between components
	✔ D. To carry control signals

Question ID :	**4410091198288**
Option 1 ID :	**4410094727048**
Option 2 ID :	**4410094727050**
Option 3 ID :	**4410094727047**
Option 4 ID :	**4410094727049**
Status :	**Answered**
Chosen Option :	**D**

Q.31	The equivalent hexadecimal representation for the binary number 1011101.1101 is _____.
Ans	✘ A. 2E.D
	✔ B. 5D.D
	✘ C. 5D.E
	✘ D. 5B.B

Question ID :	**4410091471161**
Option 1 ID :	**4410095812580**
Option 2 ID :	**4410095812577**
Option 3 ID :	**4410095812579**
Option 4 ID :	**4410095812578**
Status :	**Answered**
Chosen Option :	**B**

Q.32	**If SetConsoleMode() is called with an input handle (STD_INPUT_HANDLE), which of the following mode flags CANNOT be used?**
Ans	✗ A. ENABLE_LINE_INPUT
	✗ B. ENABLE_ECHO_INPUT
	✗ C. ENABLE_PROCESSED_INPUT
	✓ D. ENABLE_WRAP_AT_EOL_OUTPUT

Question ID :	**4410091467660**
Option 1 ID :	**4410095798443**
Option 2 ID :	**4410095798446**
Option 3 ID :	**4410095798444**
Option 4 ID :	**4410095798445**
Status :	**Not Answered**
Chosen Option :	**--**

Q.33	**Analyse the following C program and predict its output.** **#include <stdio.h>** **int main() {** **FILE *fp;** **if ((fp = fopen("temp.txt", "r")) == NULL)** **printf("Error");** **else** **fclose(fp);** **fclose(fp);** **return 0;** **}**
Ans	✓ A. Undefined behavior
	✗ B. Compilation error
	✗ C. Prints 'Error'
	✗ D. Closes file safely twice

Question ID :	**4410091460936**
Option 1 ID :	**4410095771880**
Option 2 ID :	**4410095771881**
Option 3 ID :	**4410095771878**
Option 4 ID :	**4410095771879**
Status :	**Not Answered**
Chosen Option :	**--**

Q.34	Which Unix System call is equivalent to Windows System call CreateFile()?
Ans	✗ A. read()
	✗ B. write()
	✗ C. fopen()
	✓ D. open()

Question ID :	**4410091434763**
Option 1 ID :	**4410095667599**
Option 2 ID :	**4410095667601**
Option 3 ID :	**4410095667598**
Option 4 ID :	**4410095667600**
Status :	**Not Answered**
Chosen Option :	**--**

Q.35	Which is a major design criticism of the OSI model?
Ans	✗ A. Over-specification of protocols
	✗ B. Lack of session management
	✓ C. Overlapping functionality across layers
	✗ D. Under-specification of services

Question ID :	**4410091478629**
Option 1 ID :	**4410095841842**
Option 2 ID :	**4410095841845**
Option 3 ID :	**4410095841844**
Option 4 ID :	**4410095841843**
Status :	**Answered**
Chosen Option :	**B**

Q.36	Consider a DFS on a graph with vertices {A, B, C, D, E}. If the traversal starts at A and discovers vertices in order A → B → C → D → E, what is the DFS finishing order?
Ans	✗ A. A, B, C, D, E
	✗ B. Random order
	✓ C. E, D, C, B, A
	✗ D. D, E, C, B, A

Question ID :	**4410091470185**
Option 1 ID :	**4410095808670**
Option 2 ID :	**4410095808673**
Option 3 ID :	**4410095808671**
Option 4 ID :	**4410095808672**
Status :	**Answered**
Chosen Option :	**C**

Q.37 **A system uses fixed partitioning with the following memory blocks and process allocations:**

Block Size (MB)	Process Size (MB)
4	1
8	7
8	7
16	14

Which statement is true about internal and external fragmentation?

Ans

✗ A. Internal fragmentation = 7 MB; External fragmentation = 4 MB

✗ B. Internal fragmentation = 0 MB; External fragmentation = 7 MB

✓ C. Internal fragmentation = 7 MB; External fragmentation = 0 MB

✗ D. Internal fragmentation = 4 MB; External fragmentation = 3 MB

Question ID :	**4410091441831**
Option 1 ID :	**4410095695974**
Option 2 ID :	**4410095695975**
Option 3 ID :	**4410095695973**
Option 4 ID :	**4410095695976**
Status :	**Answered**
Chosen Option :	**C**

Q.38 A system uses **variable partition memory management** with the following free memory blocks (in KB):

Block	Size (KB)
1	100
2	500
3	200
4	300
5	600

Four processes arrive in the following order with their memory requirements (in KB):

Process	Size (KB)
P1	212
P2	417
P3	112
P4	426

Using the **Best Fit** allocation strategy, determine **which block each process is allocated to** and **how much total internal fragmentation** remains at the end of all allocations.

Ans

✗ A. P1 → Block 3, P2 → Block 2, P3 → Block 1, P4 → Block 5; Total internal fragmentation = 159 KB

✓ B. P1 → Block 4, P2 → Block 2, P3 → Block 3, P4 → Block 5; Total internal fragmentation = 433 KB

✗ C. P1 → Block 2, P2 → Block 4, P3 → Block 1, P4 → Block 5; Total internal fragmentation = 171 KB

✗ D. P1 → Block 4, P2 → Block 5, P3 → Block 1, P4 → Block 2; Total internal fragmentation = 169 KB

Question ID :	**4410091431779**
Option 1 ID :	**4410095655408**
Option 2 ID :	**4410095655411**
Option 3 ID :	**4410095655410**
Option 4 ID :	**4410095655409**
Status :	**Answered**
Chosen Option :	**B**

Q.39 If an NFA has 4 states, what is the maximum number of states possible in the equivalent DFA?

Ans

✗ A. 4

✓ B. 16

✗ C. 32

✗ D. 8

Question ID :	**4410091479717**
Option 1 ID :	**4410095845970**
Option 2 ID :	**4410095845973**
Option 3 ID :	**4410095845972**
Option 4 ID :	**4410095845971**
Status :	**Answered**
Chosen Option :	**B**

Q.40	**Which situation best demonstrates the importance of atomicity in transaction management?**
Ans	✗ A. A transaction ensures that all integrity constraints are satisfied after execution.
	✓ B. A bank transfer deducts money from one account but fails to credit the other due to a crash.
	✗ C. A committed transaction's updates remain intact even after a power failure.
	✗ D. A transaction reads data modified by another transaction before it is committed.

Question ID :	**4410091441801**
Option 1 ID :	**4410095695856**
Option 2 ID :	**4410095695853**
Option 3 ID :	**4410095695855**
Option 4 ID :	**4410095695854**
Status :	**Answered**
Chosen Option :	**A**

Q.41	**Consider the following pseudo-code:** **Algorithm TestComplexity(A[1..n])** **1. sum ← 0** **2. for i ← 1 to n do** **3. for j ← 1 to i do** **4. for k ← 1 to j do** **5. sum ← sum + 1** **6. return sum** **What is the asymptotic time complexity of the above algorithm?**
Ans	✗ A. O(n2)
	✗ B. O(n4)
	✓ C. O(n3)
	✗ D. O(n log n)

Question ID :	**4410091428508**
Option 1 ID :	**4410095642563**
Option 2 ID :	**4410095642565**
Option 3 ID :	**4410095642564**
Option 4 ID :	**4410095642566**
Status :	**Answered**
Chosen Option :	**A**

Q.42	A lexical analyzer uses the following regular expressions to recognise tokens in a programming language: **Identifier (ID):** `(letter)(letter digit)*` **Number (NUM):** `(digit)+(\.(digit)+)?` **Relational Operator (REL_OP):** `< <= > >= == !=` **Whitespace:** `(blank tab newline)+` Consider the input string: count<=total1 If the lexical analyzer applies **maximal munch (longest match rule)** and **priority-based resolution** (in the order: REL_OP > NUM > ID > WHITESPACE), what will be the correct **sequence of tokens** recognised?
Ans	✔ A. ⟨ID, count⟩ ⟨REL_OP, <=⟩ ⟨ID, total1⟩
	✘ B. ⟨ID, count⟩ ⟨REL_OP, <⟩ ⟨=, invalid⟩ ⟨ID, total1⟩
	✘ C. ⟨ID, count⟩ ⟨REL_OP, <=⟩ ⟨NUM, total1⟩
	✘ D. ⟨ID, count⟩ ⟨REL_OP, <=⟩ ⟨ID, total⟩ ⟨NUM, 1⟩

Question ID :	**4410091440468**
Option 1 ID :	**4410095690541**
Option 2 ID :	**4410095690540**
Option 3 ID :	**4410095690542**
Option 4 ID :	**4410095690539**
Status :	**Answered**
Chosen Option :	**B**

Q.43	In an AND gate with two inputs A and B, the output Y is defined as Y=AB. Which of the following truth table entries correctly represents this logic?
Ans	✘ A. A=1, B=0 → Y=1
	✘ B. A=0, B=1 → Y=1
	✘ C. A=0, B=0 → Y=1
	✔ D. A=1, B=1 → Y=1

Question ID :	**4410091449451**
Option 1 ID :	**4410095726270**
Option 2 ID :	**4410095726269**
Option 3 ID :	**4410095726268**
Option 4 ID :	**4410095726271**
Status :	**Answered**
Chosen Option :	**D**

Q.44	What is the relation violates when two tuples have identical values for all attributes?
Ans	✔ A. Entity integrity
	✘ B. Domain integrity
	✘ C. Referential integrity
	✘ D. Functional dependency

Question ID :	4410091477350
Option 1 ID :	4410095836788
Option 2 ID :	4410095836789
Option 3 ID :	4410095836787
Option 4 ID :	4410095836790
Status :	Answered
Chosen Option :	B

Q.45	In a banking system, a transaction T1 transfers ₹300 from Account A to Account B. Balances are stored in a table Accounts(AccNo, Balance) with the constraint: CHECK (Balance >= 0) Suppose the following sequence occurs: 1. T1 deducts ₹300 from Account A. 2. System crashes before adding ₹300 to Account B. 3. The system restarts without recovery. Which component of ACID has been compromised to the greatest extent in this case?
Ans	✘ A. Consistency
	✘ B. Durability
	✔ C. Atomicity
	✘ D. Isolation

Question ID :	4410091470635
Option 1 ID :	4410095810468
Option 2 ID :	4410095810470
Option 3 ID :	4410095810467
Option 4 ID :	4410095810469
Status :	Answered
Chosen Option :	B

Q.46	**To write data to the end of a file using WriteFile() without truncating its contents, the file should be opened with which configuration?**
Ans	✗ A. OPEN_ALWAYS | GENERIC_READ
	✗ B. TRUNCATE_EXISTING | GENERIC_WRITE
	✗ C. CREATE_ALWAYS | GENERIC_WRITE, then move the pointer to start
	✓ D. OPEN_EXISTING | GENERIC_WRITE, then move pointer to end

Question ID :	**4410091467646**
Option 1 ID :	**4410095798386**
Option 2 ID :	**4410095798385**
Option 3 ID :	**4410095798384**
Option 4 ID :	**4410095798383**
Status :	**Not Answered**
Chosen Option :	**--**

Q.47 **Consider the following binary tree:**

```
A
/ \
B C
/ \ \
D E F
```

If an in-order traversal is performed on this tree, what will be the correct order of visiting nodes?

Ans	✗ A. A B D E C F
	✗ B. A D B E C F
	✓ C. D B E A C F
	✗ D. D E B A F C

Question ID :	**4410091434719**
Option 1 ID :	**4410095667426**
Option 2 ID :	**4410095667429**
Option 3 ID :	**4410095667427**
Option 4 ID :	**4410095667428**
Status :	**Answered**
Chosen Option :	**C**

Q.48	During lexical analysis, which component is primarily responsible for recognising tokens from the input stream of characters?
Ans	✗ A. Semantic analyzer, based on attribute grammars
	✗ B. Parser, using syntax-directed translation rules
	✗ C. Symbol table manager, by assigning identifiers unique addresses
	✓ D. Finite automaton, driven by regular expressions for token patterns

Question ID :	**4410091473462**
Option 1 ID :	**4410095821488**
Option 2 ID :	**4410095821487**
Option 3 ID :	**4410095821490**
Option 4 ID :	**4410095821489**
Status :	**Answered**
Chosen Option :	**C**

Q.49	Convert the **octal number (7356.47)$_8$** into its **binary** and **decimal equivalent**, and identify which of the following decimal values is **correct**.
Ans	✗ A. $(3846.59375)_{10}$
	✗ B. $(3814.609375)_{10}$
	✗ C. $(3774.59375)_{10}$
	✓ D. $(3822.609375)_{10}$

Question ID :	**4410091434932**
Option 1 ID :	**4410095668269**
Option 2 ID :	**4410095668271**
Option 3 ID :	**4410095668272**
Option 4 ID :	**4410095668270**
Status :	**Answered**
Chosen Option :	**D**

Q.50	Which of the following is represented as 'Software Crisis'?
Ans	✓ A. High cost and poor quality of early software projects
	✗ B. Lack of computers
	✗ C. Software piracy
	✗ D. Hardware failure

Question ID :	**4410091490547**
Option 1 ID :	**4410095888201**
Option 2 ID :	**4410095888200**
Option 3 ID :	**4410095888203**
Option 4 ID :	**4410095888202**
Status :	**Answered**
Chosen Option :	**B**

Q.51 Consider the following Java code:

```
class Parent {
int x = 10;
void show() { System.out.println("Parent: " + x); }
}
class Child extends Parent {
int x = 20;
void show() { System.out.println("Child: " + x); }
}
public class Test {
public static void main(String[] args) {
Parent obj = new Child();
System.out.println(obj.x);
obj.show();
}
}
```

What will be the output of this program?

Ans
- ✔ A. 10 Child: 20
- ✘ B. 20 Parent: 10
- ✘ C. 20 Child: 20
- ✘ D. 10 Parent: 10

Question ID :	**4410091473517**
Option 1 ID :	**4410095821571**
Option 2 ID :	**4410095821572**
Option 3 ID :	**4410095821569**
Option 4 ID :	**4410095821570**
Status :	**Answered**
Chosen Option :	**A**

Q.52 In a multimedia operating system, which of the following functionalities is most critical to ensure continuous playback of audio and video streams without jitter or frame drops?

Ans
- ✘ A. Batch processing for background tasks
- ✔ B. Real-time process scheduling with deadline constraints
- ✘ C. File system encryption and access control
- ✘ D. Support for multiple user logins with access control

Question ID :	**4410091475990**
Option 1 ID :	**4410095831257**
Option 2 ID :	**4410095831255**
Option 3 ID :	**4410095831256**
Option 4 ID :	**4410095831254**
Status :	**Answered**
Chosen Option :	**D**

Q.53	When a browser sends a GET request and the server responds with the status code 304 (Not Modified), what does this imply?
Ans	✔ A. The file has not changed since the client's cached copy.
	✘ B. The client used an incorrect URL.
	✘ C. The file was modified and re-sent.
	✘ D. The requested file was deleted from the server.

Question ID :	**4410091470793**
Option 1 ID :	**4410095811115**
Option 2 ID :	**4410095811118**
Option 3 ID :	**4410095811117**
Option 4 ID :	**4410095811116**
Status :	**Not Answered**
Chosen Option :	**--**

Q.54	A computer system has an **8-bit address bus**. Addresses from 00000000 to 01111111 are used for memory, and addresses from 10000000 to 11111111 are used for I/O devices. If each memory location stores **one 8-bit word**, which of the following statements is **true**?
Ans	✘ A. The system can address 256 bytes of memory and 128 I/O ports.
	✘ B. The system can address 128 words of memory and 256 I/O ports.
	✔ C. The system can address a total of 128 bytes of memory and 128 I/O ports.
	✘ D. The system can address 256 words of memory, all reserved for memory operations.

Question ID :	**4410091453908**
Option 1 ID :	**4410095743934**
Option 2 ID :	**4410095743935**
Option 3 ID :	**4410095743933**
Option 4 ID :	**4410095743936**
Status :	**Not Answered**
Chosen Option :	**--**

Q.55	The instruction STA 3000H performs which of the following operations?
Ans	✘ A. Loads accumulator from memory location 3000H
	✘ B. Adds data from 3000H to accumulator
	✔ C. Stores accumulator data into memory location 3000H
	✘ D. Moves data to register A

Question ID :	**4410091479043**
Option 1 ID :	**4410095843267**
Option 2 ID :	**4410095843268**
Option 3 ID :	**4410095843266**
Option 4 ID :	**4410095843269**
Status :	**Not Answered**
Chosen Option :	**--**

Q.56	Identify the option in which both statements perform the same operation for any numeric variable a.
Ans	✔ A. a = a + 5; and a += 5;
	✘ B. a = a * 5; and a += 5;
	✘ C. a = a + 5; and a *= 5;
	✘ D. a = a - 5; and a =- 5;

Question ID :	**4410091457669**
Option 1 ID :	**4410095758971**
Option 2 ID :	**4410095758969**
Option 3 ID :	**4410095758970**
Option 4 ID :	**4410095758968**
Status :	**Answered**
Chosen Option :	**A**

Q.57	Consider the array [5, 1, 4, 2, 8]. After the first pass of Bubble Sort to sort array elements in ascending order, what is the state of the array?
Ans	✘ A. [5, 4, 2, 1, 8]
	✘ B. [1, 2, 5, 4, 8]
	✔ C. [1, 4, 2, 5, 8]
	✘ D. [1, 2, 4 5, 8]

Question ID :	**4410091470236**
Option 1 ID :	**4410095808876**
Option 2 ID :	**4410095808875**
Option 3 ID :	**4410095808874**
Option 4 ID :	**4410095808877**
Status :	**Answered**
Chosen Option :	**C**

Q.58	Which of the following statements about **domain constraints** in a relational database is **most accurate**?
Ans	✔ A. Domain constraints ensure that each attribute's value belongs to a predefined set or type, and may restrict NULL values if specified.
	✘ B. Domain constraints define relationships between multiple attributes across different tables.
	✘ C. Domain constraints apply only to numeric attributes and are ignored for character or date types.
	✘ D. Domain constraints automatically enforce referential integrity between primary and foreign keys.

Question ID :	**4410091441808**
Option 1 ID :	**4410095695882**
Option 2 ID :	**4410095695881**
Option 3 ID :	**4410095695884**
Option 4 ID :	**4410095695883**
Status :	**Answered**
Chosen Option :	**A**

Q.59	**Which of the following elements of graphic design primarily helps in creating depth, contrast and emphasis by controlling how light or dark an area appears?**
Ans	✗ A. Space
	✗ B. Colour
	✗ C. Texture
	✓ D. Value

Question ID :	**4410091467113**
Option 1 ID :	**4410095796389**
Option 2 ID :	**4410095796390**
Option 3 ID :	**4410095796387**
Option 4 ID :	**4410095796388**
Status :	**Answered**
Chosen Option :	**C**

Q.60	**Which of the following regular expressions defines an infinite language over the alphabet Σ = { , } ?**
Ans	✗ A. aa+bb
	✓ B. (a+b)*
	✗ C. a(a+b)a
	✗ D. aa

Question ID :	**4410091472190**
Option 1 ID :	**4410095816660**
Option 2 ID :	**4410095816658**
Option 3 ID :	**4410095816659**
Option 4 ID :	**4410095816657**
Status :	**Answered**
Chosen Option :	**B**

Q.61	**In the ID3 (Iterative Dichotomiser 3) algorithm used for building Decision Trees, which of the following statements is correct?**
Ans	✓ A. ID3 selects the feature with the highest information gain at each node to reduce uncertainty.
	✗ B. ID3 selects the feature with the lowest information gain at each node to maximise entropy.
	✗ C. ID3 splits the data randomly without considering entropy or information gain.
	✗ D. ID3 can only be used for regression problems, not classification.

Question ID :	**4410091467327**
Option 1 ID :	**4410095797248**
Option 2 ID :	**4410095797247**
Option 3 ID :	**4410095797249**
Option 4 ID :	**4410095797250**
Status :	**Not Answered**
Chosen Option :	**--**

Q.62	**Which of the following is a use of Compiler technology in embedded systems?**
Ans	✗ A. Handle database transactions
	✗ B. Manage power supply
	✗ C. Control user interface
	✓ D. Generate efficient machine code for hardware constraints

Question ID :	**4410091479872**
Option 1 ID :	**4410095846589**
Option 2 ID :	**4410095846588**
Option 3 ID :	**4410095846586**
Option 4 ID :	**4410095846587**
Status :	**Answered**
Chosen Option :	**D**

Q.63	A computer system has a **16-bit address bus** and uses **byte-addressable memory**. The main memory consists of **two memory chips**, each of size **32 KB**. If the address space begins at `0000H`, which of the following represents the correct **address range** for the **second memory chip**?
Ans	✗ A. 0000H – 7FFFH
	✗ B. 4000H – 7FFFH
	✗ C. 0000H – FFFFH
	✓ D. 8000H – FFFFH

Question ID :	**4410091437130**
Option 1 ID :	**4410095677248**
Option 2 ID :	**4410095677250**
Option 3 ID :	**4410095677251**
Option 4 ID :	**4410095677249**
Status :	**Answered**
Chosen Option :	**C**

Q.64 Consider the following Java program:

```
class Demo {
int x = 5;
static int y = 10;

void display() {
int x = 20;
System.out.println(x + " " + this.x + " " + y);
}
}

class Test {
static int y = 50;
public static void main(String[] args) {
Demo d = new Demo();
d.display();
System.out.println(d.y + " " + y);
}
}
```

What will be the output of the program?

Ans

- ✗ A. 20 20 10 and 10 10
- ✗ B. 20 5 50 and 10 10
- ✓ C. 20 5 10 and 10 50
- ✗ D. 20 5 10 and 50 50

Question ID :	**4410091446177**
Option 1 ID :	**4410095713363**
Option 2 ID :	**4410095713365**
Option 3 ID :	**4410095713362**
Option 4 ID :	**4410095713364**
Status :	**Not Answered**
Chosen Option :	**--**

Q.65	What will be the output of the following C program segment?

```
#include <stdio.h>
int main() {
int i = 1, sum = 0;
do {
if (i % 2 == 0)
sum += i;
i++;
} while (i <= 5);
printf("%d", sum);
return 0;
}
```

Ans	✗ A. 10
	✓ B. 6
	✗ C. 4
	✗ D. 8

Question ID :	**4410091428141**
Option 1 ID :	**4410095641101**
Option 2 ID :	**4410095641098**
Option 3 ID :	**4410095641099**
Option 4 ID :	**4410095641100**
Status :	**Answered**
Chosen Option :	**A**

Q.66	Which of the following is the output of a compiler?
Ans	✗ A. Binary code
	✗ B. Source code
	✓ C. Object code
	✗ D. High-level language

Question ID :	**4410091479863**
Option 1 ID :	**4410095846552**
Option 2 ID :	**4410095846550**
Option 3 ID :	**4410095846551**
Option 4 ID :	**4410095846553**
Status :	**Answered**
Chosen Option :	**B**

Q.67	**In an FCFS-scheduled system, five processes arrive at time 0: P1 (CPU-bound, 20 ms) and P2–P5 (I/O-bound, 2–5 ms).** **Which outcome is most likely under FCFS?**
Ans	✔ A. I/O-bound processes face starvation due to the convoy effect caused by P1.
	✘ B. Average waiting time becomes minimal for all processes.
	✘ C. CPU utilization improves because short processes preempt the long one.
	✘ D. Context switching increases as I/O-bound processes repeatedly interrupt P1.

Question ID :	**4410091431595**
Option 1 ID :	**4410095654671**
Option 2 ID :	**4410095654670**
Option 3 ID :	**4410095654672**
Option 4 ID :	**4410095654673**
Status :	**Answered**
Chosen Option :	**A**

Q.68	**Which of the following algorithms correctly traverses all elements of a one-dimensional array `A` from index `lower_bound` to `upper_bound`?**
Ans	✘ A. Step 1: SET I = lower_bound Step 2: Repeat Steps 3 to 4 while I < upper_bound Step 3: Apply process to A[I] Step 4: SET I = I + 1 Step 5: EXIT
	✘ B. Step 1: SET I = lower_bound + 1 Step 2: Repeat Steps 3 to 4 while I <= upper_bound Step 3: Apply process to A[I] Step 4: SET I = I + 1 Step 5: EXIT
	✔ C. Step 1: SET I = lower_bound Step 2: Repeat Steps 3 to 4 while I <= upper_bound Step 3: Apply process to A[I] Step 4: SET I = I + 1 Step 5: EXIT
	✘ D. Step 1: SET I = upper_bound Step 2: Repeat Steps 3 to 4 while I >= lower_bound Step 3: Apply process to A[I+1] Step 4: SET I = I - 1 Step 5: EXIT

Question ID :	**4410091434637**
Option 1 ID :	**4410095667102**
Option 2 ID :	**4410095667104**
Option 3 ID :	**4410095667103**
Option 4 ID :	**4410095667105**
Status :	**Not Answered**
Chosen Option :	**--**

Q.69	**Consider the following given grammar:** **S → L = R R** **L → *R id** **R → L** **Which of the following statements is true about this grammar with respect to LR parsing techniques?**
Ans	✔ A. The grammar contains a shift-reduce conflict in simple LR parsing and is not LR(0) or SLR(1).
	✘ B. The grammar is LR(0) and can be parsed by an LR(0) parser without conflicts.
	✘ C. The grammar is ambiguous and cannot be parsed by any LR parser.
	✘ D. The grammar is SLR(1) and can be parsed without shift-reduce conflicts.

Question ID :	**4410091473515**
Option 1 ID :	**4410095821564**
Option 2 ID :	**4410095821561**
Option 3 ID :	**4410095821562**
Option 4 ID :	**4410095821563**
Status :	**Answered**
Chosen Option :	**D**

Q.70	**In the context of multimedia compositing, which of the following best describes the primary function of chroma keying used in live-action and post-production integration?**
Ans	✘ A. It synchronises the motion paths of animated and static elements within a composition.
	✘ B. It adjusts the brightness and contrast levels of multiple image layers.
	✘ C. It enhances the texture mapping of 3D models to blend them with background scenes.
	✔ D. It isolates and removes a specific colour background to merge live-action footage with another visual element.

Question ID :	**4410091467284**
Option 1 ID :	**4410095797074**
Option 2 ID :	**4410095797071**
Option 3 ID :	**4410095797073**
Option 4 ID :	**4410095797072**
Status :	**Not Answered**
Chosen Option :	**--**

Q.71	**In the process of converting a Moore machine to an equivalent Mealy machine, which of the following statements is true?**
Ans	✔ A. Mealy machine can produce outputs one input symbol earlier than the equivalent Moore machine.
	✘ B. The number of states in the Mealy machine is always greater than that in the Moore machine.
	✘ C. The Moore machine requires outputs to depend on both current state and input symbol.
	✘ D. The conversion is not possible unless the Moore machine is deterministic.

Question ID :	**4410091472159**
Option 1 ID :	**4410095816536**
Option 2 ID :	**4410095816533**
Option 3 ID :	**4410095816535**
Option 4 ID :	**4410095816534**
Status :	**Answered**
Chosen Option :	**B**

Q.72	**How is a multivalued attribute represented in an ER diagram?**
Ans	✘ A. Dashed ellipse
	✘ B. Bold ellipse
	✔ C. Double ellipse
	✘ D. Double rectangle

Question ID :	**4410091477342**
Option 1 ID :	**4410095836752**
Option 2 ID :	**4410095836754**
Option 3 ID :	**4410095836751**
Option 4 ID :	**4410095836753**
Status :	**Answered**
Chosen Option :	**D**

Q.73	**In Kruchten's 4+1 view model of software architecture, which view shows the key abstractions in the system as objects or object classes?**
Ans	✘ A. Physical view
	✘ B. Development view
	✔ C. Logical view
	✘ D. Process view

Question ID :	**4410091464434**
Option 1 ID :	**4410095785951**
Option 2 ID :	**4410095785953**
Option 3 ID :	**4410095785952**
Option 4 ID :	**4410095785950**
Status :	**Not Answered**
Chosen Option :	**--**

Q.74 **In the Internet Multimedia Protocol Stack, which of the following correctly matches the protocol with its primary function in supporting multimedia communication?**

Protocol	Function
1. RTP	a. Manages multimedia call setup, control and teardown
2. RTCP	b. Provides feedback on quality of data delivery and synchronisation between streams
3. SIP	c. Handles real-time delivery of audio/video streams
4. RSVP	d. Reserves network resources and provides QoS guarantees

Ans

✔ A. 1-c, 2-b, 3-a, 4-d

✘ B. 1-a, 2-c, 3-b, 4-d

✘ C. 1-c, 2-a, 3-b, 4-d

✘ D. 1-b, 2-a, 3-d, 4-c

Question ID :	**4410091467105**
Option 1 ID :	**4410095796355**
Option 2 ID :	**4410095796356**
Option 3 ID :	**4410095796358**
Option 4 ID :	**4410095796357**
Status :	**Not Answered**
Chosen Option :	**--**

Q.75 **In a CPU with a 16-bit instruction word, the opcode field occupies 6 bits, and the instruction format supports two register operands and one immediate operand. If the system has 32 general-purpose registers, what is the maximum size (in bits) of the immediate operand that can be accommodated?**

Ans

✘ A. 8

✘ B. 6

✔ C. 0

✘ D. 4

Question ID :	**4410091471461**
Option 1 ID :	**4410095813757**
Option 2 ID :	**4410095813756**
Option 3 ID :	**4410095813758**
Option 4 ID :	**4410095813755**
Status :	**Answered**
Chosen Option :	**C**

Q.76	When borrow = 1 in binary subtraction, what happens to the next higher bit position?
Ans	✗ A. It remains unchanged.
	✗ B. It becomes 0.
	✓ C. It decreases by 1.
	✗ D. It increases by 1.

Question ID :	**4410091449449**
Option 1 ID :	**4410095726260**
Option 2 ID :	**4410095726263**
Option 3 ID :	**4410095726262**
Option 4 ID :	**4410095726261**
Status :	**Answered**
Chosen Option :	**C**

Q.77	A **Mealy Machine** outputs **'1'** when the **current input bit** is **different** from the **previous input bit**, otherwise it outputs **'0'**. Assume the **previous input is 0** before the first symbol. What is the **output sequence** for the input string **'x = 10011'?**
Ans	✗ A. 01011
	✓ B. 11010
	✗ C. 10101
	✗ D. 11100

Question ID :	**4410091438937**
Option 1 ID :	**4410095684446**
Option 2 ID :	**4410095684444**
Option 3 ID :	**4410095684445**
Option 4 ID :	**4410095684447**
Status :	**Answered**
Chosen Option :	**B**

Q.78	Which of the following statements in Java will compile and execute successfully without violating keyword usage rules?
Ans	✗ A. boolean null = false; System.out.println(null);
	✗ B. float goto = 2.5f; System.out.println(goto);
	✗ C. int static = 10; System.out.println(static);
	✓ D. int _for = 5; System.out.println(_for);

Question ID :	**4410091446149**
Option 1 ID :	**4410095713257**
Option 2 ID :	**4410095713256**
Option 3 ID :	**4410095713254**
Option 4 ID :	**4410095713255**
Status :	**Not Answered**
Chosen Option :	**--**

Q.79	What is the complement of (A+B)?
Ans	✗ A. A'+B'
	✗ B. AB
	✓ C. A'B'
	✗ D. A+B

Question ID :	**4410091478807**
Option 1 ID :	**4410095842543**
Option 2 ID :	**4410095842544**
Option 3 ID :	**4410095842545**
Option 4 ID :	**4410095842542**
Status :	**Answered**
Chosen Option :	**C**

Q.80	During the **design and analysis process** of an algorithm to find the ***kth smallest element*** in an unsorted array, a researcher proposes using a modified divide-and-conquer approach that always divides the array into five nearly equal parts, recursively selects the median of each part, and then finds the median of those medians to use as a pivot for partitioning. Which of the following best describes the **time complexity** and **design implication** of this algorithm?
Ans	✗ A. O(n2); because repeated partitioning leads to quadratic comparisons.
	✗ B. O(logn)O(\log n)O(logn); because the recursion depth reduces logarithmically.
	✗ C. O(nlogn); because the algorithm behaves like mergesort.
	✓ D. O(n); because the median-of-medians approach ensures balanced partitions and linear-time selection.

Question ID :	**4410091428417**
Option 1 ID :	**4410095642199**
Option 2 ID :	**4410095642202**
Option 3 ID :	**4410095642200**
Option 4 ID :	**4410095642201**
Status :	**Answered**
Chosen Option :	**D**

Q.81	Which of the following identifiers is invalid in Java according to language rules?
Ans	✓ A. 3DModel
	✗ B. $_value123
	✗ C. _main_
	✗ D. String

Question ID :	**4410091473522**
Option 1 ID :	**4410095821592**
Option 2 ID :	**4410095821589**
Option 3 ID :	**4410095821591**
Option 4 ID :	**4410095821590**
Status :	**Not Answered**
Chosen Option :	**--**

Q.82	Which of the following assertions most accurately characterises the semantics of primitive data types as defined by the Java Language Specification?
Ans	✗ A. The float and double types store decimal values using exact binary representation.
	✗ B. All numeric data types in Java are unsigned.
	✗ C. The boolean data type can be implicitly converted to an integer type during arithmetic operations.
	✓ D. The char data type in Java is a 16-bit unsigned integer representing Unicode characters.

Question ID :	**4410091473520**
Option 1 ID :	**4410095821584**
Option 2 ID :	**4410095821581**
Option 3 ID :	**4410095821582**
Option 4 ID :	**4410095821583**
Status :	**Not Answered**
Chosen Option :	**--**

Q.83	Which of the following statements best characterises unsupervised learning in contrast to supervised learning?
Ans	✗ A. It predicts output variables based on training with known labels.
	✗ B. It requires labeled data to group similar observations.
	✗ C. It adjusts weight using error values between predicted and actual outputs.
	✓ D. It discovers inherent patterns in unlabeled data without predefined outputs.

Question ID :	**4410091476125**
Option 1 ID :	**4410095831809**
Option 2 ID :	**4410095831806**
Option 3 ID :	**4410095831808**
Option 4 ID :	**4410095831807**
Status :	**Not Answered**
Chosen Option :	**--**

Q.84	Which statement about assertions in a relational database is true regarding data validity?
Ans	✓ A. They maintain data validity through complex or cross-table rules.
	✗ B. They ensure only data type consistency.
	✗ C. They prevent duplicate primary keys.
	✗ D. They are used only for referential integrity.

Question ID :	**4410091441805**
Option 1 ID :	**4410095695870**
Option 2 ID :	**4410095695869**
Option 3 ID :	**4410095695872**
Option 4 ID :	**4410095695871**
Status :	**Answered**
Chosen Option :	**A**

Q.85	**Which of the following correctly accesses the element in the 2nd row and 3rd column of a 2D array intarr[3][4]?**
Ans	✔ A. *(*(arr + 1) + 2)
	✘ B. *(arr[1][2])
	✘ C. arr + 1 + 2
	✘ D. *(arr + 2 + 3)

Question ID :	**4410091467402**
Option 1 ID :	**4410095797544**
Option 2 ID :	**4410095797545**
Option 3 ID :	**4410095797546**
Option 4 ID :	**4410095797543**
Status :	**Answered**
Chosen Option :	**A**

Q.86	**Which of the following criteria does the KNN algorithm use to make decisions?**
Ans	✘ A. Random selection
	✘ B. Gradient updates
	✔ C. Majority vote among nearest neighbors
	✘ D. Training model parameters

Question ID :	**4410091490575**
Option 1 ID :	**4410095888325**
Option 2 ID :	**4410095888327**
Option 3 ID :	**4410095888324**
Option 4 ID :	**4410095888326**
Status :	**Not Answered**
Chosen Option :	**--**

Q.87	**A developer implements the following code to sort a singly linked list using bubble sort by swapping data instead of links:** **void sort(struct Node *head) {** **struct Node *i, *j;** **int temp;** **for (i = head; i != NULL; i = i->next) {** **for (j = i->next; j != NULL; j = j->next) {** **if (i->data > j->data) {** **temp = i->data;** **i->data = j->data;** **j->data = temp;** **}** **}** **}** **}** **After sorting, the program prints the list, but the last element sometimes remains unsorted when the list contains duplicate values. What is the most likely conceptual issue?**
Ans	✔ A. The outer loop must run until no swaps occur, not just until i == NULL.
	✘ B. The issue arises because swapping data does not rearrange links, so duplicates are skipped.
	✘ C. Swapping node data breaks pointer consistency in linked lists with duplicate values.
	✘ D. The inner loop should compare j->next instead of j to avoid null dereferencing.

Question ID :	**4410091464317**
Option 1 ID :	**4410095785497**
Option 2 ID :	**4410095785494**
Option 3 ID :	**4410095785495**
Option 4 ID :	**4410095785496**
Status :	**Not Answered**
Chosen Option :	**--**

Q.88	**Which of the following DMA signals is sent from the CPU or the system's bus controller to give the DMA controller permission to use the system bus for transferring data?**
Ans	✘ A. DMA Acknowledge (DACK)
	✘ B. Bus Request (BR)
	✔ C. Bus Grant (BG)
	✘ D. DMA Request (DRQ)

Question ID :	**4410091453924**
Option 1 ID :	**4410095743998**
Option 2 ID :	**4410095743999**
Option 3 ID :	**4410095744000**
Option 4 ID :	**4410095743997**
Status :	**Answered**
Chosen Option :	**A**

Q.89	**Which of the following correctly matches a grammar type with its corresponding language and accepting device in the Chomsky Hierarchy?**
Ans	✗ A. Type 1 — Context-Sensitive Grammar — Pushdown Automaton
	✓ B. Type 3 — Regular Grammar — Finite Automaton
	✗ C. Type 2 — Context-Free Grammar — Turing Machine
	✗ D. Type 0 — Recursively Enumerable Grammar — Linear Bounded Automaton

Question ID :	**4410091460517**
Option 1 ID :	**4410095770247**
Option 2 ID :	**4410095770245**
Option 3 ID :	**4410095770246**
Option 4 ID :	**4410095770248**
Status :	**Answered**
Chosen Option :	**B**

Q.90	**Which of the following correctly distinguishes a constant from a variable in Object-Oriented Programming using Java semantics?**
Ans	✗ A. A variable stores fixed data throughout program execution, while a constant's value may change dynamically.
	✓ B. A constant is declared using the final keyword, ensuring its value cannot be altered once initialised.
	✗ C. Constants are automatically public and static in all contexts.
	✗ D. Both constants and variables can be modified freely within the same class.

Question ID :	**4410091473519**
Option 1 ID :	**4410095821577**
Option 2 ID :	**4410095821578**
Option 3 ID :	**4410095821580**
Option 4 ID :	**4410095821579**
Status :	**Not Answered**
Chosen Option :	**--**

Q.91	**In a neural network, which function introduces non-linearity?**
Ans	✗ A. Loss function
	✗ B. Gradient function
	✗ C. Cost function
	✓ D. Activation function

Question ID :	**4410091489804**
Option 1 ID :	**4410095885254**
Option 2 ID :	**4410095885256**
Option 3 ID :	**4410095885255**
Option 4 ID :	**4410095885253**
Status :	**Not Answered**
Chosen Option :	**--**

Q.92	**A multimedia production team is working on a cross-software project where assets are created in Adobe Illustrator, edited in Adobe Photoshop and then integrated into a 3D visualisation environment using Autodesk Maya. During the asset pipeline, they experience colour mismatch, layer flattening and loss of transparency when moving files between software applications. Which of the following best represents an optimised import/export workflow that minimises such data loss and preserves design fidelity across the tools?**
Ans	✔ A. Use EPS or SVG for vector graphics from Illustrator, maintain transparency with PNG or PSD in Photoshop and import into Maya using layered PSD or TIFF with embedded alpha channels.
	✘ B. Export all graphics into PDF format since it universally supports both raster and vector elements without any compatibility issues.
	✘ C. Convert all assets into BMP format to ensure uncompressed data transfer across the applications.
	✘ D. Export all files as JPEG for compatibility and small file size before importing them into each software.

Question ID :	**4410091442148**
Option 1 ID :	**4410095697254**
Option 2 ID :	**4410095697256**
Option 3 ID :	**4410095697255**
Option 4 ID :	**4410095697253**
Status :	**Not Answered**
Chosen Option :	**--**

Q.93	**A computer uses an instruction code format with a total of 16 bits. The operation code (opcode) occupies 5 bits, and the remaining bits are used to specify either: One direct memory address, or Two register addresses (each of equal length) If the system supports 32 general-purpose registers, determine how many distinct instruction formats are possible in this computer.**
Ans	✘ A. 16
	✔ B. 2
	✘ C. 4
	✘ D. 8

Question ID :	**4410091435429**
Option 1 ID :	**4410095670245**
Option 2 ID :	**4410095670242**
Option 3 ID :	**4410095670243**
Option 4 ID :	**4410095670244**
Status :	**Answered**
Chosen Option :	**B**

Q.94	Which of the following Big-O notations represents the best time complexity?
Ans	✗ A. $O(n^2)$
	✗ B. O(n)
	✓ C. O(1)
	✗ D. O(n log n)

Question ID :	**441009319585**
Option 1 ID :	**4410091244607**
Option 2 ID :	**4410091244608**
Option 3 ID :	**4410091244609**
Option 4 ID :	**4410091244606**
Status :	**Answered**
Chosen Option :	**B**

Q.95	Which of the following binary-to-decimal conversions is INCORRECT?
Ans	✗ A. $(1101)_2 = (13)_{10}$
	✗ B. $(10101010)_2 = (170)_{10}$
	✓ C. $(01101101)_2 = (127)_{10}$
	✗ D. $(1111\ 1111)_2 = (255)_{10}$

Question ID :	**4410091471103**
Option 1 ID :	**4410095812347**
Option 2 ID :	**4410095812349**
Option 3 ID :	**4410095812350**
Option 4 ID :	**4410095812348**
Status :	**Answered**
Chosen Option :	**C**

Q.96	A multimedia production team is developing an **educational documentary** that integrates **narration, ambient sound, synchronised animations and live-action footage.** The final output must maintain **lip synchronisation, balanced audio mixing** and **seamless video transitions** for **both web streaming and broadcast-quality formats.** Which of the following **production workflows** ensures maximum synchronisation accuracy, audiovisual consistency and cross-platform compatibility?
Ans	✔ A. Record video and audio separately, use a clapperboard or timecode for synchronisation, perform multi-track audio mixing and colour grading, then export using broadcast-safe codecs (e.g., MXF or ProRes) and adaptive web formats (e.g., MP4/H.264).
	✘ B. Use only compressed streaming formats (like FLV or WMV) during editing to ensure real-time playback, and later convert to broadcast formats through transcoding.
	✘ C. Focus on editing audio first, then align video clips visually using waveform approximation; export all content in uncompressed AVI format for highest fidelity.
	✘ D. Capture all audio and video simultaneously using a single camera microphone, then edit directly on the timeline to minimise post-production steps.

Question ID :	**4410091442172**
Option 1 ID :	**4410095697346**
Option 2 ID :	**4410095697348**
Option 3 ID :	**4410095697347**
Option 4 ID :	**4410095697345**
Status :	**Not Answered**
Chosen Option :	**--**

Q.97	**In the Post Office Protocol (POP3), which of the following statements is true regarding message storage and retrieval?**
Ans	✘ A. POP3 requires a continuous connection for all message operations.
	✘ B. POP3 allows selective message retrieval without downloading.
	✔ C. Once downloaded, messages are typically deleted from the server.
	✘ D. Messages are permanently stored on the server even after retrieval by default.

Question ID :	**4410091470835**
Option 1 ID :	**4410095811286**
Option 2 ID :	**4410095811284**
Option 3 ID :	**4410095811285**
Option 4 ID :	**4410095811283**
Status :	**Not Answered**
Chosen Option :	**--**

Q.98	**Two systems have identical functionality but differ in architecture. System A uses a layered architecture, while System B uses a microservices architecture. Which of the following statements most accurately reflects the architectural trade-off between them?**
Ans	✗ A. System A has lower cohesion and higher coupling compared to System B.
	✗ B. Both architectures ensure identical runtime performance under equal workloads.
	✓ C. System B boosts modularity and deployability, at the cost of higher inter-service communication overhead.
	✗ D. System A is easier to scale horizontally than System B.

Question ID :	**4410091476097**
Option 1 ID :	**4410095831683**
Option 2 ID :	**4410095831685**
Option 3 ID :	**4410095831684**
Option 4 ID :	**4410095831682**
Status :	**Not Answered**
Chosen Option :	**--**

Q.99	**Which operator is used to perform bitwise exclusive OR in C?**
Ans	✗ A. &
	✓ B. ^
	✗ C. |
	✗ D. ~

Question ID :	**4410091467365**
Option 1 ID :	**4410095797397**
Option 2 ID :	**4410095797396**
Option 3 ID :	**4410095797395**
Option 4 ID :	**4410095797398**
Status :	**Answered**
Chosen Option :	**B**

Q.100	**In non-preemptive scheduling, when does context switching occur?**
Ans	✗ A. On time slice expiry
	✗ B. Whenever a new process arrives
	✓ C. Only when the process finishes
	✗ D. When a process is blocked

Question ID :	**441009298159**
Option 1 ID :	**4410091159727**
Option 2 ID :	**4410091159729**
Option 3 ID :	**4410091159728**
Option 4 ID :	**4410091159730**
Status :	**Answered**
Chosen Option :	**B**

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