



Bharat Electronics Limited
Government of India, Ministry of Defence
A Navratna Company

Participant ID	
Participant Name	
Test Center Name	
Test Date	17/12/2023
Test Time	8:30 AM - 10:30 AM
Subject	Probationary Engineer Computer Science

Section : General Aptitude

Q.1 Which of the following is a key component of India's infrastructure development?

- Ans ☒ 1. Space exploration
- ☒ 2. Deep-sea fishing
- ☒ 3. Mountaineering facilities
- ☒ 4. High-speed railways

Question ID : 630680515491
Option 1 ID : 6306802014369
Option 2 ID : 6306802014371
Option 3 ID : 6306802014372
Option 4 ID : 6306802014370
Status : Answered
Chosen Option : 4

Q.2 What is the primary goal of sustainable development?

- Ans ☒ 1. Exploitation of natural resources to meet current needs
- ☒ 2. Rapid economic growth at any cost
- ☒ 3. Preservation of natural resources for future generations
- ☒ 4. Immediate improvement of living standards without considering environmental impact

Question ID : 630680515485
Option 1 ID : 6306802014348
Option 2 ID : 6306802014345
Option 3 ID : 6306802014346
Option 4 ID : 6306802014347
Status : Answered
Chosen Option : 3

Q.3 Which article of the Indian Constitution deals with Fundamental Duties?

- Ans
- ☐ 1. Article 31B
 - ☐ 2. Article 48A
 - ☐ 3. Article 39C
 - ☒ 4. Article 51A

Question ID : 630680515492
Option 1 ID : 6306802014373
Option 2 ID : 6306802014376
Option 3 ID : 6306802014375
Option 4 ID : 6306802014374
Status : Answered
Chosen Option : 4

Q.4 Which of the following is a characteristic feature of the Animal Kingdom?

- Ans
- ☐ 1. Cell walls made of cellulose
 - ☐ 2. Autotrophic nutrition
 - ☒ 3. Heterotrophic mode of nutrition
 - ☐ 4. Presence of chloroplasts

Question ID : 630680515494
Option 1 ID : 6306802014381
Option 2 ID : 6306802014382
Option 3 ID : 6306802014384
Option 4 ID : 6306802014383
Status : Answered
Chosen Option : 1

Q.5 Which socio-religious reform movement in modern history aimed at eradicating social evils such as untouchability, caste discrimination, and promoting education and women's rights?

- Ans
- ☐ 1. The Aligarh Movement
 - ☐ 2. The Deoband Movement
 - ☒ 3. The Brahmo Samaj
 - ☐ 4. The Arya Samaj

Question ID : 630680515486
Option 1 ID : 6306802014352
Option 2 ID : 6306802014350
Option 3 ID : 6306802014349
Option 4 ID : 6306802014351
Status : Answered
Chosen Option : 3

Q.6 Which of the following is a Constitutional Body in India?

- Ans ☒ 1. Election Commission of India (ECI)
- ☐ 2. Planning Commission
- ☐ 3. National Investigation Agency (NIA)
- ☐ 4. Reserve Bank of India (RBI)

Question ID : 630680515493
Option 1 ID : 6306802014378
Option 2 ID : 6306802014379
Option 3 ID : 6306802014380
Option 4 ID : 6306802014377
Status : Answered
Chosen Option : 2

Q.7 What is the purpose of pasteurization in food processing?

- Ans ☐ 1. To increase the nutritional content of food.
- ☐ 2. To enhance the colour of the food.
- ☐ 3. To add flavour to the food.
- ☒ 4. To destroy pathogenic microorganisms present in the food

Question ID : 630680515495
Option 1 ID : 6306802014387
Option 2 ID : 6306802014388
Option 3 ID : 6306802014385
Option 4 ID : 6306802014386
Status : Answered
Chosen Option : 4

Q.8 Which language is recognized as a Classical Language by the Government of India?

- Ans ☒ 1. Sanskrit
- ☐ 2. Bengali
- ☐ 3. Hindi
- ☐ 4. English

Question ID : 630680515488
Option 1 ID : 6306802014359
Option 2 ID : 6306802014360
Option 3 ID : 6306802014357
Option 4 ID : 6306802014358
Status : Answered
Chosen Option : 1

Q.9 Which sports award is considered the highest sporting honour in India?

- Ans
- ☒ 1. Dronacharya Award
 - ☒ 2. Arjuna Award
 - ☒ 3. Major Dhyan Chand Khel Ratna
 - ☒ 4. Padma Bhushan

Question ID : 630680515489
Option 1 ID : 6306802014362
Option 2 ID : 6306802014361
Option 3 ID : 6306802014363
Option 4 ID : 6306802014364
Status : Answered
Chosen Option : 3

Q.10 What is the primary function of the Reserve Bank of India (RBI)?

- Ans
- ☒ 1. Regulating stock markets
 - ☒ 2. Conducting monetary policy
 - ☒ 3. Implementing fiscal policy
 - ☒ 4. Managing foreign relations

Question ID : 630680515484
Option 1 ID : 6306802014342
Option 2 ID : 6306802014341
Option 3 ID : 6306802014344
Option 4 ID : 6306802014343
Status : Answered
Chosen Option : 3

Q.11 Which of the following Ruler was responsible for erecting the iron pillar of Delhi?

- Ans
- ☒ 1. Samudragupta
 - ☒ 2. Sri Gupta
 - ☒ 3. Kumara Gupta
 - ☒ 4. Chandragupta II

Question ID : 630680515487
Option 1 ID : 6306802014354
Option 2 ID : 6306802014355
Option 3 ID : 6306802014356
Option 4 ID : 6306802014353
Status : Answered
Chosen Option : 3

Q.12 Which river is known as the "Dakshina Ganga" in India?

- Ans ☒ 1. Brahmaputra
☒ 2. Yamuna
☒ 3. Godavari
☒ 4. Krishna

Question ID : 630680515490
Option 1 ID : 6306802014367
Option 2 ID : 6306802014365
Option 3 ID : 6306802014366
Option 4 ID : 6306802014368
Status : Answered
Chosen Option : 1

Section : Reasoning

Q.1 Which of the following letter will replace the question mark (?) in the given series?
R, U, X, A, D, ?

- Ans ☒ 1. G
☒ 2. H
☒ 3. F
☒ 4. I

Question ID : 630680515499
Option 1 ID : 6306802014401
Option 2 ID : 6306802014403
Option 3 ID : 6306802014402
Option 4 ID : 6306802014404
Status : Answered
Chosen Option : 1

Q.2 Three Statements are given followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statement I: All fruits are vegetables.
Statement II: Some vegetables are green.
Statement III: Some green things are ugly.

Conclusion I: Some vegetables are fruits.
Conclusion II: Some green things are not ugly.

- Ans ☒ 1. Both conclusions I and II follow
☒ 2. Only conclusion I follows
☒ 3. Neither conclusion I nor II follows
☒ 4. Only conclusion II follows

Question ID : 630680515498
Option 1 ID : 6306802014399
Option 2 ID : 6306802014397
Option 3 ID : 6306802014400
Option 4 ID : 6306802014398
Status : Answered
Chosen Option : 1

Q.3 Select the option that is related to the third number in the same way as the second number is related to the first number.
57 : 228 :: 79 : ?

- Ans ☒ 1. 316
☐ 2. 341
☐ 3. 333
☐ 4. 329

Question ID : 630680515508
Option 1 ID : 6306802014437
Option 2 ID : 6306802014440
Option 3 ID : 6306802014438
Option 4 ID : 6306802014439
Status : Answered
Chosen Option : 1

Q.4 If, B denotes 'addition', C denotes 'division', and D denotes 'subtraction', then what will be the value of the following equation?
12 D 4 C 2 B 3 = ?

- Ans ☐ 1. 14
☒ 2. 13
☐ 3. 15
☐ 4. 12

Question ID : 630680515506
Option 1 ID : 6306802014431
Option 2 ID : 6306802014430
Option 3 ID : 6306802014429
Option 4 ID : 6306802014432
Status : Answered
Chosen Option : 2

Q.5 Which two signs should be interchanged to make the given equation correct?
16 = 4 × 5 ÷ 2 - 8 + 18

- Ans ☐ 1. + and ×
☐ 2. - and =
☐ 3. + and -
☒ 4. = and +

Question ID : 630680515507
Option 1 ID : 6306802014433
Option 2 ID : 6306802014435
Option 3 ID : 6306802014434
Option 4 ID : 6306802014436
Status : Answered
Chosen Option : 4

Q.6 Seven friends Alice, Bob, Carol, David, Eve, Frank, and Grace are sitting around a circular table facing the centre. Alice is sitting to the immediate right of Bob. Bob and Carol are neighbours. Frank is sitting exactly between David and Eve. Grace is not sitting next to Carol or Eve. Who is sitting between Alice and David?

- Ans
- ☒ 1. Eve
 - ☒ 2. Bob
 - ☒ 3. Grace
 - ☒ 4. Frank

Question ID : 630680515496
Option 1 ID : 6306802014392
Option 2 ID : 6306802014390
Option 3 ID : 6306802014389
Option 4 ID : 6306802014391
Status : Answered
Chosen Option : 1

Q.7 Select the option that is related to the fifth word in the same way as the fourth word is related to the third word, and the second word is related to the first word.
KANGAROO : JOEY :: BEAR : ?

- Ans
- ☒ 1. Calf
 - ☒ 2. Puppy
 - ☒ 3. Chick
 - ☒ 4. Cub

Question ID : 630680515502
Option 1 ID : 6306802014413
Option 2 ID : 6306802014416
Option 3 ID : 6306802014415
Option 4 ID : 6306802014414
Status : Answered
Chosen Option : 4

Q.8 Which of the following numbers will replace the question mark (?) in the given series?
14, 13, 15, 12, 16, 11, ?

- Ans
- ☒ 1. 17
 - ☒ 2. 16
 - ☒ 3. 18
 - ☒ 4. 15

Question ID : 630680515505
Option 1 ID : 6306802014425
Option 2 ID : 6306802014426
Option 3 ID : 6306802014428
Option 4 ID : 6306802014427
Status : Answered
Chosen Option : 1

Q.9 Rohan says, "Ajay's wife is the sister of my father's only son." How is Ajay related to Rohan?

- Ans
- ☒ 1. Husband
 - ☒ 2. Brother
 - ☒ 3. Sister's husband
 - ☒ 4. Mother's father

Question ID : 630680515501
Option 1 ID : 6306802014412
Option 2 ID : 6306802014409
Option 3 ID : 6306802014410
Option 4 ID : 6306802014411
Status : Answered
Chosen Option : 3

Q.10 There are 133 boxes kept one above the other. What will be the position of the box from the bottom whose position from the top is 27th?

- Ans
- ☒ 1. 139
 - ☒ 2. 142
 - ☒ 3. 123
 - ☒ 4. 107

Question ID : 630680515497
Option 1 ID : 6306802014393
Option 2 ID : 6306802014395
Option 3 ID : 6306802014396
Option 4 ID : 6306802014394
Status : Answered
Chosen Option : 4

Q.11 Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the odd letter-cluster.

- Ans
- ☒ 1. VWX
 - ☒ 2. RSU
 - ☒ 3. FGI
 - ☒ 4. JKM

Question ID : 630680515503
Option 1 ID : 6306802014419
Option 2 ID : 6306802014417
Option 3 ID : 6306802014420
Option 4 ID : 6306802014418
Status : Answered
Chosen Option : 1

Q.12 Which of the following numbers will replace the question mark (?) in the given series?
1076, ?, 688, 494, 300, 106

- Ans ☒ 1. 882
- ☒ 2. 872
- ☒ 3. 831
- ☒ 4. 858

Question ID : 630680515504

Option 1 ID : 6306802014423

Option 2 ID : 6306802014424

Option 3 ID : 6306802014421

Option 4 ID : 6306802014422

Status : Answered

Chosen Option : 1

Q.13 In a certain code language, if RESCUE is coded as 'EUCRES' and HANDLE is coded as 'ELDHAN', then what will DANGER be coded as?

- Ans ☒ 1. REGDAN
- ☒ 2. RGEDAN
- ☒ 3. REGADN
- ☒ 4. REGDND

Question ID : 630680515500

Option 1 ID : 6306802014408

Option 2 ID : 6306802014407

Option 3 ID : 6306802014405

Option 4 ID : 6306802014406

Status : Answered

Chosen Option : 1

Section : Question based on Computer Science Engineering

Q.1 Which of the following statement is CORRECT with reference to syntax-directed Translation Schemes?

- I. Synthesized translation defines the value of the translation of the nonterminal on the left side of the production as a function of the translations of the nonterminal on the right side.
- II. Translation of a non-terminal on the right side of the production is defined in terms of a translation of the non-terminal on left. Such translation is called inherited translation.

- Ans ☒ 1. Both I and II
- ☒ 2. Only I
- ☒ 3. Only II
- ☒ 4. Neither I nor II

Question ID : 630680515556

Option 1 ID : 6306802014631

Option 2 ID : 6306802014629

Option 3 ID : 6306802014630

Option 4 ID : 6306802014632

Status : Answered

Chosen Option : 2

Q.2 Which of the following is the single path shortest path algorithm?

- Ans
- ☐ 1. Topological sort
 - ☐ 2. Binary search
 - ☐ 3. Tree search
 - ☒ 4. Dijkstra's algorithm

Question ID : 630680515541
Option 1 ID : 6306802014569
Option 2 ID : 6306802014570
Option 3 ID : 6306802014572
Option 4 ID : 6306802014571
Status : Answered
Chosen Option : 4

Q.3 What is the decimal conversion of $(630.4)_8$?

- Ans
- ☐ 1. 640.4
 - ☒ 2. 408.5
 - ☐ 3. 650
 - ☐ 4. 670

Question ID : 630680515510
Option 1 ID : 6306802014446
Option 2 ID : 6306802014445
Option 3 ID : 6306802014447
Option 4 ID : 6306802014448
Status : Answered
Chosen Option : 1

Q.4 Identify the category of the multithreading which allow a program to continue running even if part of it is blocked or is performing a lengthy operation.

- Ans
- ☐ 1. Economy
 - ☐ 2. Scalability
 - ☒ 3. Responsiveness
 - ☐ 4. Resource sharing

Question ID : 630680515561
Option 1 ID : 6306802014651
Option 2 ID : 6306802014652
Option 3 ID : 6306802014650
Option 4 ID : 6306802014649
Status : Answered
Chosen Option : 4

Q.5 Match the phases of compiler with its function.

	Phases		Function
I	Intermediate code generator	1	Keeps track of the names used by the program
II	Code generation	2	Create a stream of simple instructions
III	Table management	3	Produces the object code

- Ans
- ✗ 1. I – 1; II – 2; III – 3
 - ✗ 2. I – 1; II – 3; III – 2
 - ✓ 3. I – 2; II – 3; III – 1
 - ✗ 4. I – 2; II – 1; III – 3

Question ID : 630680515552
Option 1 ID : 6306802014614
Option 2 ID : 6306802014616
Option 3 ID : 6306802014613
Option 4 ID : 6306802014615
Status : Answered
Chosen Option : 3

Q.6 Which of the following statement is CORRECT regarding Referential Integrity Constants in Relational Database Management System?

- I. Referential Integrity Constants is a rule that maintains consistency among the rows of two tables (relations).
- II. Referential Integrity rule States that of there is a foreign key in one relation, either each foreign key value must match a primary key value in the other table or else the foreign key value must be null.

- Ans
- ✗ 1. Only II
 - ✓ 2. Both I and II
 - ✗ 3. Only I
 - ✗ 4. Neither I nor II

Question ID : 630680515573
Option 1 ID : 6306802014698
Option 2 ID : 6306802014699
Option 3 ID : 6306802014697
Option 4 ID : 6306802014700
Status : Answered
Chosen Option : 3

Q.7 A ____ defines an action the database should take when same database-related event occurs that causes a change in the content of a table in a database.

- Ans
- ✓ 1. Trigger
 - ✗ 2. Hit
 - ✗ 3. Field
 - ✗ 4. Relation

Question ID : 630680515574
Option 1 ID : 6306802014701
Option 2 ID : 6306802014704
Option 3 ID : 6306802014703
Option 4 ID : 6306802014702
Status : Answered
Chosen Option : 1

Q.8 In context of computer networks, based on data transmission speed which of the following are the bases categories of communication channels (paths)?

- I. Narrow band
- II. Voice band
- III. Broad band

- Ans
- ☒ 1. Only I and II
 - ☒ 2. I, II and III
 - ☒ 3. Only II and III
 - ☒ 4. Only I and III

Question ID : 630680515577
Option 1 ID : 6306802014713
Option 2 ID : 6306802014716
Option 3 ID : 6306802014714
Option 4 ID : 6306802014715
Status : Answered
Chosen Option : 4

Q.9 As per ISO 25010 quality model which of the following is not the characteristics which describe quality in use model?

- Ans
- ☒ 1. Efficiency
 - ☒ 2. Effectiveness
 - ☒ 3. Compatibility
 - ☒ 4. Satisfaction

Question ID : 630680515591
Option 1 ID : 6306802014770
Option 2 ID : 6306802014769
Option 3 ID : 6306802014771
Option 4 ID : 6306802014772
Status : Answered
Chosen Option : 3

Q.10 In context of computer Database, _____ language includes command to enable users to enter and manipulate data in a database.

- Ans
- ☒ 1. Data Definition
 - ☒ 2. Data Security
 - ☒ 3. Data Manipulation
 - ☒ 4. Data Integrity

Question ID : 630680515569
Option 1 ID : 6306802014681
Option 2 ID : 6306802014683
Option 3 ID : 6306802014682
Option 4 ID : 6306802014684
Status : Answered
Chosen Option : 3

Q.11 In context of OSI model of computer networks _____ layer provides means of establishing, maintaining and transmitting a dialogue between two end users.

- Ans
- ☒ 1. Presentation
 - ☒ 2. Transport
 - ☒ 3. Session
 - ☒ 4. Application

Question ID : 630680515583
Option 1 ID : 6306802014739
Option 2 ID : 6306802014737
Option 3 ID : 6306802014738
Option 4 ID : 6306802014740
Status : Answered
Chosen Option : 4

Q.12 Which of the following pair is CORRECT?

- I. Half adder - A combinational circuit that performs the addition of two bits
- II. Full adder - A combinational circuit that performs the addition of three bits

- Ans
- ☒ 1. Neither I nor II
 - ☒ 2. Only II
 - ☒ 3. Only I
 - ☒ 4. Both I and II

Question ID : 630680515514
Option 1 ID : 6306802014464
Option 2 ID : 6306802014462
Option 3 ID : 6306802014461
Option 4 ID : 6306802014463
Status : Answered
Chosen Option : 3

Q.13 Convert $(1111)_2$ into decimal equivalents.

- Ans
- ☒ 1. 16
 - ☒ 2. 11
 - ☒ 3. 20
 - ☒ 4. 15

Question ID : 630680515525
Option 1 ID : 6306802014507
Option 2 ID : 6306802014505
Option 3 ID : 6306802014508
Option 4 ID : 6306802014506
Status : Answered
Chosen Option : 3

Q.14 In context of OSI model of computer networks _____ layer provides services that directly support end users of networks and is a collection of miscellaneous protocols for various commonly used applications such as electronic mail, file transfer etc.

- Ans
- ☒ 1. Transport
 - ☒ 2. Application
 - ☒ 3. Presentation
 - ☒ 4. Session

Question ID : 630680515580
Option 1 ID : 6306802014728
Option 2 ID : 6306802014726
Option 3 ID : 6306802014725
Option 4 ID : 6306802014727
Status : Answered
Chosen Option : 2

Q.15 Which of the following algorithms is an example of the divide and conquer approach?

- Ans
- ☒ 1. Matrix-chain multiplication
 - ☒ 2. Quick sort
 - ☒ 3. Prim's algorithm
 - ☒ 4. Longest common subsequence

Question ID : 630680515534
Option 1 ID : 6306802014543
Option 2 ID : 6306802014541
Option 3 ID : 6306802014542
Option 4 ID : 6306802014544
Status : Answered
Chosen Option : 4

Q.16 In context of OSI model of computer networks, which of the following is a Transport Layer Protocol?

- I. Transport Control Protocol
- II. User Datagram Protocol

- Ans
- ☒ 1. Only I
 - ☒ 2. Neither I nor II
 - ☒ 3. Both I and II
 - ☒ 4. Only II

Question ID : 630680515579
Option 1 ID : 6306802014721
Option 2 ID : 6306802014724
Option 3 ID : 6306802014723
Option 4 ID : 6306802014722
Status : Answered
Chosen Option : 4

Q.17 A merchant allows a discount of 10 percent on marked price. If he wants to earn a profit of 10 percent, then marked price will be how much percentage more than the cost price?

- Ans
- ☒ 1. 50.66 percent
 - ☒ 2. 30 percent
 - ☒ 3. 22.22 percent
 - ☒ 4. 33.33 percent

Question ID : 630680515601
Option 1 ID : 6306802014812
Option 2 ID : 6306802014811
Option 3 ID : 6306802014809
Option 4 ID : 6306802014810
Status : Answered
Chosen Option : 3

Q.18 A _____ is a combinational circuit that selects binary information from one of many input lines and directs it to a single output line.

- Ans
- ☒ 1. half adder
 - ☒ 2. digital multiplexer
 - ☒ 3. full adder
 - ☒ 4. half subtractor

Question ID : 630680515516
Option 1 ID : 6306802014469
Option 2 ID : 6306802014470
Option 3 ID : 6306802014472
Option 4 ID : 6306802014471
Status : Answered
Chosen Option : 2

Q.19 In First-Come-First-Served CPU scheduling algorithm when all the other processes wait for one big process to get off the CPU is known as _____.

- Ans
- ☒ 1. Belady's Anomaly
 - ☒ 2. Aging
 - ☒ 3. Convoy effect
 - ☒ 4. Starvation

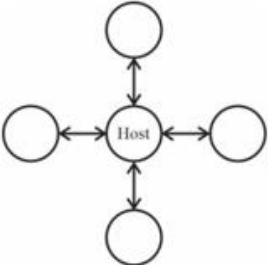
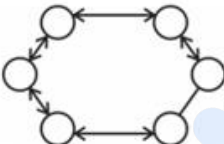
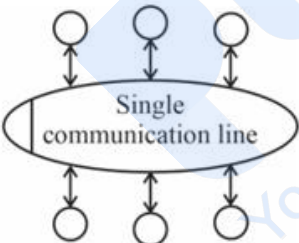
Question ID : 630680515563
Option 1 ID : 6306802014660
Option 2 ID : 6306802014659
Option 3 ID : 6306802014657
Option 4 ID : 6306802014658
Status : Answered
Chosen Option : 4

Q.20 Parser is categorized into which type of context-free grammar?

- Ans ☒ 1. Three
☒ 2. Two
☒ 3. Four
☒ 4. One

Question ID : 630680515553
Option 1 ID : 6306802014619
Option 2 ID : 6306802014618
Option 3 ID : 6306802014620
Option 4 ID : 6306802014617
Status : Answered
Chosen Option : 1

Q.21 Match the following network diagram with the correct topology.

	Network diagram		Topology
I		1	Ring network
II		2	Bus network
III		3	Star network

- Ans ☒ 1. I – 3; II – 1; III – 2
☒ 2. I – 1; II – 2; III – 3
☒ 3. I – 3; II – 2; III – 1
☒ 4. I – 1; II – 3; III – 2

Question ID : 630680515578
Option 1 ID : 6306802014718
Option 2 ID : 6306802014717
Option 3 ID : 6306802014720
Option 4 ID : 6306802014719
Status : Answered
Chosen Option : 1

Q.22 Which of the following is the type of parallel processor system as per Flynn's taxonomy?

- I. Single instruction, single data (SISD) stream
- II. Single instruction, multiple data (SIMD) stream

- Ans
- ☒ 1. Neither I nor II
 - ☒ 2. Both I and II
 - ☒ 3. Only II
 - ☒ 4. Only I

Question ID : 630680515518
Option 1 ID : 6306802014480
Option 2 ID : 6306802014479
Option 3 ID : 6306802014478
Option 4 ID : 6306802014477
Status : Not Answered
Chosen Option : --

Q.23 How many steps are required to construct a string abbbb from the grammar given by using right most derivation?

- $S \rightarrow aAB$
- $A \rightarrow bBb$
- $B \rightarrow A/E$

- Ans
- ☒ 1. 4
 - ☒ 2. 7
 - ☒ 3. 5
 - ☒ 4. 6

Question ID : 630680515548
Option 1 ID : 6306802014597
Option 2 ID : 6306802014600
Option 3 ID : 6306802014598
Option 4 ID : 6306802014599
Status : Answered
Chosen Option : 1

Q.24 According to memory hierarchy as one goes down the hierarchy what will NOT occur?

- Ans
- ☒ 1. Increasing capacity
 - ☒ 2. Decreasing cost per bit
 - ☒ 3. Increasing access time
 - ☒ 4. Increasing frequency of access of the memory by the processor

Question ID : 630680515524
Option 1 ID : 6306802014502
Option 2 ID : 6306802014501
Option 3 ID : 6306802014503
Option 4 ID : 6306802014504
Status : Answered
Chosen Option : 4

Q.25 Which of the given option is CORRECT?

- Ans ☒ 1. $(\frac{2}{5}) < (\frac{11}{13}) < (\frac{90}{110})$
- ☒ 2. $(\frac{16}{19}) < (\frac{3}{7}) < (\frac{40}{90})$
- ☒ 3. $(\frac{17}{27}) < (\frac{15}{22}) < (\frac{13}{17})$
- ☒ 4. $(\frac{4}{9}) < (\frac{3}{8}) < (\frac{2}{7})$

Question ID : 630680515608
Option 1 ID : 6306802014838
Option 2 ID : 6306802014837
Option 3 ID : 6306802014839
Option 4 ID : 6306802014840
Status : Answered
Chosen Option : 1

Q.26 Which of the following is NOT the problems of synchronization?

- Ans ☒ 1. The Bounded-Buffer problem
- ☒ 2. The Readers-Writer problem
- ☒ 3. The Knapsack problem
- ☒ 4. The Dining-Philosophers problem

Question ID : 630680515564
Option 1 ID : 6306802014661
Option 2 ID : 6306802014663
Option 3 ID : 6306802014662
Option 4 ID : 6306802014664
Status : Answered
Chosen Option : 2

Q.27 Which of the following is NOT an input device?

- Ans ☒ 1. Keyboard
- ☒ 2. Voice response system
- ☒ 3. Speech recognition devices
- ☒ 4. Point and draw devices

Question ID : 630680515521
Option 1 ID : 6306802014489
Option 2 ID : 6306802014492
Option 3 ID : 6306802014491
Option 4 ID : 6306802014490
Status : Answered
Chosen Option : 4

Q.28 Given an array X = (22, 33, 55, 88, 96) and key = 88

How many iterations are required to find the key using binary search?

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

Question ID : 630680515535
Option 1 ID : 6306802014547
Option 2 ID : 6306802014546
Option 3 ID : 6306802014545
Option 4 ID : 6306802014548
Status : Answered
Chosen Option : 3

Q.29 Consider a hash table with 10 slots. What is the sequence of the following elements in a hash table if hash function is k mode 10 and the collision is resolved using liner probing?

44, 26, 12, 93, 80, 57, 56, 23, 46, 36

- Ans
- ☒ 1. 80, 46, 12, 93, 44, 23, 26, 57, 56, 36
 - ☒ 2. 80, 36, 12, 93, 44, 23, 26, 57, 56, 46
 - ☒ 3. 80, 36, 12, 93, 44, 23, 26, 56, 46, 57
 - ☒ 4. 12, 23, 26, 36, 44, 46, 56, 57, 80, 93

Question ID : 630680515538
Option 1 ID : 6306802014559
Option 2 ID : 6306802014558
Option 3 ID : 6306802014560
Option 4 ID : 6306802014557
Status : Answered
Chosen Option : 1

Q.30 Which of the following machine learning algorithm does NOT use clustering?

- Ans
- ☒ 1. Linear Discriminant Analysis
 - ☒ 2. Expectation Maximization
 - ☒ 3. K-means
 - ☒ 4. K-Medians

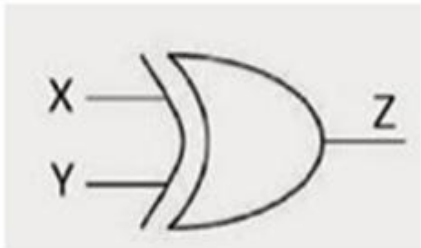
Question ID : 630680515595
Option 1 ID : 6306802014788
Option 2 ID : 6306802014787
Option 3 ID : 6306802014785
Option 4 ID : 6306802014786
Status : Not Answered
Chosen Option : --

Q.31 Full-Subtractor has ____ inputs and ____ outputs.

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

Question ID : 630680515515
Option 1 ID : 6306802014468
Option 2 ID : 6306802014466
Option 3 ID : 6306802014465
Option 4 ID : 6306802014467
Status : Answered
Chosen Option : 3

Q.32 What is the output function of the given XOR gate?



- Ans
- ☒ 1. $Z = X.Y$
 - ☒ 2. $Z = (X + Y)'$
 - ☒ 3. $Z = X + Y$
 - ☒ 4. $Z = XY' + X'Y$

Question ID : 630680515513
Option 1 ID : 6306802014457
Option 2 ID : 6306802014459
Option 3 ID : 6306802014458
Option 4 ID : 6306802014460
Status : Answered
Chosen Option : 2

Q.33 Any address generated by the CPU is commonly referred to as a ____ where an address seen by the memory unit i.e. the one loaded into the memory address register is known as ____.

- Ans
- ☒ 1. absolute address; physical address
 - ☒ 2. logical address; absolute address
 - ☒ 3. logical address; physical address
 - ☒ 4. physical address; relocatable address

Question ID : 630680515566
Option 1 ID : 6306802014672
Option 2 ID : 6306802014669
Option 3 ID : 6306802014670
Option 4 ID : 6306802014671
Status : Answered
Chosen Option : 2

Q.34 Context free grammar is _____ grammar according to the Chomsky hierarchy.

- Ans ☒ 1. Type 2
- ☒ 2. Type 3
- ☒ 3. Type 0
- ☒ 4. Type 1

Question ID : 630680515546
Option 1 ID : 6306802014590
Option 2 ID : 6306802014589
Option 3 ID : 6306802014592
Option 4 ID : 6306802014591
Status : Answered
Chosen Option : 1

Q.35 Sort the following list using radix sort:
429, 557, 757, 939, 536, 820, 455
What is the output of the algorithm after the first pass?

- Ans ☒ 1. 820, 455, 536, 557, 757, 429, 939
- ☒ 2. 429, 455, 557, 536, 757, 820, 939
- ☒ 3. 820, 429, 536, 939, 455, 557, 757
- ☒ 4. 939, 820, 757, 557, 536, 455, 429

Question ID : 630680515537
Option 1 ID : 6306802014553
Option 2 ID : 6306802014555
Option 3 ID : 6306802014554
Option 4 ID : 6306802014556
Status : Answered
Chosen Option : 3

Q.36 In context of data normalization in database management system, relation is in Boyce-Codd Normal Form if and only if every determinant is a _____.

- Ans ☒ 1. Foreign key
- ☒ 2. Non-primary key
- ☒ 3. Alternate key
- ☒ 4. Candiate key

Question ID : 630680515570
Option 1 ID : 6306802014685
Option 2 ID : 6306802014688
Option 3 ID : 6306802014687
Option 4 ID : 6306802014686
Status : Answered
Chosen Option : 4

Q.37

What is the value of $\frac{21}{46} \div \frac{1}{6}$ of $\frac{23}{42} + \frac{96}{576} \times \frac{24}{3} - \left(\frac{88}{56} \times \frac{7}{9} \div \frac{5}{36} \right)$?

Ans

- ☒ 1. $\frac{5}{2}$
- ☒ 2. $\frac{7}{2}$
- ☒ 3. $\frac{11}{2}$
- ☒ 4. $\frac{9}{2}$

Question ID : 630680515605
Option 1 ID : 6306802014828
Option 2 ID : 6306802014827
Option 3 ID : 6306802014825
Option 4 ID : 6306802014826
Status : Answered
Chosen Option : 1

Q.38 Which of the following change brought about by the iterative waterfall model to the classical waterfall model?

Ans

- ☒ 1. Addition of feedback paths
- ☒ 2. Easy to accommodate change request
- ☒ 3. Efficient error correction
- ☒ 4. Overlapping of phases

Question ID : 630680515585
Option 1 ID : 6306802014745
Option 2 ID : 6306802014746
Option 3 ID : 6306802014747
Option 4 ID : 6306802014748
Status : Answered
Chosen Option : 3

Q.39 Database designers use _____ to define the structure of a database (database scheme) which typically includes definition of all data elements of the database and organization of data elements into records, tables etc.

Ans

- ☒ 1. Query by example
- ☒ 2. Data Manipulation Language
- ☒ 3. Find Command Language
- ☒ 4. Data Definition Language

Question ID : 630680515568
Option 1 ID : 6306802014678
Option 2 ID : 6306802014677
Option 3 ID : 6306802014680
Option 4 ID : 6306802014679
Status : Answered
Chosen Option : 4

Q.40 Choose the CORRECT sequence of steps involved in machine learning cycle.

- Ans ☒ 1.
Data identification → Data preparation → Selection of machine learning algorithm → Train model → Deploy the model → Evaluate the model
- ☒ 2.
Data identification → Data preparation → Selection of machine learning algorithm → Train model → Evaluate the model → Deploy the model
- ☒ 3.
Data identification → Data preparation → Selection of machine learning algorithm → Evaluate the model → Train model → Deploy the model
- ☒ 4.
Data identification → Selection of machine learning algorithm → Data preparation → Train model → Evaluate the model → Deploy the model

Question ID : 630680515594
Option 1 ID : 6306802014784
Option 2 ID : 6306802014781
Option 3 ID : 6306802014783
Option 4 ID : 6306802014782
Status : Answered
Chosen Option : 3

Q.41 What is the approximate value of $149.832 \div 25.0138 + 7.10 \times 2.008$?

- Ans ☒ 1. 35
- ☒ 2. 20
- ☒ 3. 11
- ☒ 4. 27

Question ID : 630680515603
Option 1 ID : 6306802014820
Option 2 ID : 6306802014817
Option 3 ID : 6306802014818
Option 4 ID : 6306802014819
Status : Answered
Chosen Option : 2

Q.42 In context of computer networks which of the following is a data transmission mode?

- I. Simplex
II. Half Simplex
III. Full Duplex
- Ans ☒ 1. Only I and II
- ☒ 2. I, II and III
- ☒ 3. Only II and III
- ☒ 4. Only I and III

Question ID : 630680515576
Option 1 ID : 6306802014709
Option 2 ID : 6306802014712
Option 3 ID : 6306802014710
Option 4 ID : 6306802014711
Status : Answered
Chosen Option : 4

Q.43 Which of the following pair of Application layer protocol of OSI model and its services is CORRECT?

- I. X.400 – Directory
- II. X.500 – Electronic Mail protocol

- Ans
- ✓ 1. Neither I nor II
 - ✗ 2. Both I and II
 - ✗ 3. Only I
 - ✗ 4. Only II

Question ID : 630680515582
Option 1 ID : 6306802014736
Option 2 ID : 6306802014735
Option 3 ID : 6306802014733
Option 4 ID : 6306802014734
Status : Answered
Chosen Option : 4

Q.44 Name the phase of compiler, which separates characters of the source language into groups that logically belong together, these groups are called tokens.

- Ans
- ✗ 1. Code optimization
 - ✗ 2. Syntax analysis
 - ✗ 3. Error handling
 - ✓ 4. Lexical analysis

Question ID : 630680515551
Option 1 ID : 6306802014611
Option 2 ID : 6306802014610
Option 3 ID : 6306802014612
Option 4 ID : 6306802014609
Status : Answered
Chosen Option : 4

Q.45 Which of the following is the CORRECT for O- notation?

- Ans
- ✓ 1.
 $O(g(n)) = \{f(n): \text{there exist positive constant } C \text{ and } n_0 \text{ such that } 0 \leq f(n) \leq cg(n) \text{ for all } n \geq n_0\}$
 - ✗ 2.
 $O(g(n)) = \{f(n): \text{there exist positive constant } C \text{ and } n_0 \text{ such that } 0 \leq Cg(n) \leq f(n) \text{ for all } n \geq n_0\}$
 - ✗ 3.
 $O(g(n)) = \{f(n): \text{there exist positive constant } C_1, C_2 \text{ and } n_0 \text{ such that } 0 \leq C_1g(n) \leq f(n) \leq C_2g(n) \text{ for all } n \geq n_0\}$
 - ✗ 4.
 $O(g(n)) = \{f(n): \text{there exist positive constant } C \text{ and } n_0 \text{ such that } 0 \geq f(n) \geq cg(n) \text{ for all } n \geq n_0\}$

Question ID : 630680515540
Option 1 ID : 6306802014565
Option 2 ID : 6306802014567
Option 3 ID : 6306802014568
Option 4 ID : 6306802014566
Status : Answered
Chosen Option : 2

Q.46 Which of the following is the external sorting?

- Ans

✖

1. Insertion sort

✔

2. Merge sort

✖

3. Quick sort

✖

4. Selection sort

Question ID : 630680515539

Option 1 ID : 6306802014561

Option 2 ID : 6306802014564

Option 3 ID : 6306802014562

Option 4 ID : 6306802014563

Status : Answered

Chosen Option : 4

Q.47 Match the following algorithms with the data structure it uses.

	Algorithm		Data structure
I	Breadth first search	1	Stacks
II	Heap sort	2	Queue
III	Depth first search	3	Arrays

- Ans

✖

1. I – 1; II – 2; III – 3

✖

2. I – 3; II – 1; III – 2

✔

3. I – 2; II – 3; III – 1

✖

4. I – 3; II – 2, III – 1

Question ID : 630680515530

Option 1 ID : 6306802014527

Option 2 ID : 6306802014526

Option 3 ID : 6306802014525

Option 4 ID : 6306802014528

Status : Answered

Chosen Option : 3

Q.48 What is the total number of swaps performed to sort the following list of elements 18, 32, 17, 19, 41, 15, 23 in an ascending order, using bubble sort?

- Ans

✖

1. 12

✖

2. 13

✔

3. 10

✖

4. 11

Question ID : 630680515536

Option 1 ID : 6306802014550

Option 2 ID : 6306802014549

Option 3 ID : 6306802014552

Option 4 ID : 6306802014551

Status : Answered

Chosen Option : 2

Q.49 Mixture of milk and water in three bottles of equal capacity is in the ratio 3 : 4, 1 : 2 and 9 : 5 respectively. These three bottles are emptied into a large bottle. What will be the ratio of milk and water respectively in the large bottle?

- Ans ☒ 1. 59 : 67
- ☐ 2. 49 : 37
- ☐ 3. 59 : 57
- ☐ 4. 69 : 57

Question ID : 630680515604
Option 1 ID : 6306802014821
Option 2 ID : 6306802014822
Option 3 ID : 6306802014824
Option 4 ID : 6306802014823
Status : Answered
Chosen Option : 3

Q.50 Which of the following array representation is CORRECT for the max heap of the following data elements?

20, 30, 70, 10, 5, 50, 80

- Ans ☐ 1. 80, 70, 50, 30, 20, 10, 5
- ☐ 2. 5, 10, 20, 30, 50, 70, 80
- ☐ 3. 70, 20, 80, 10, 5, 30, 50
- ☒ 4. 80, 20, 70, 10, 5, 30, 50

Question ID : 630680515533
Option 1 ID : 6306802014538
Option 2 ID : 6306802014537
Option 3 ID : 6306802014539
Option 4 ID : 6306802014540
Status : Answered
Chosen Option : 1

Q.51 Which of the following is NOT the action performed by a shift – reduce parser?

- Ans ☐ 1. Shift
- ☐ 2. Accept
- ☒ 3. Debase
- ☐ 4. Error

Question ID : 630680515555
Option 1 ID : 6306802014625
Option 2 ID : 6306802014627
Option 3 ID : 6306802014626
Option 4 ID : 6306802014628
Status : Answered
Chosen Option : 4

Q.52 Match the following type of software maintenance to the situation where it carried out.

	Maintenance		Situation
I	Corrective	1	Carried out to improve the performance of the system or to enhance the functionalities of the system
II	Perfective	2	Usually required for porting the software to work in new environment
III	Adaptive	3	Carried out to correct errors that were not discovered during the product development phase

- Ans
1. I – 1; II – 2; III – 3

2. I – 3; II – 2; III – 1

3. I – 1; II – 3; III – 2

4. I – 3; II – 1; III – 2

Question ID : 630680515584

Option 1 ID : 6306802014742

Option 2 ID : 6306802014741

Option 3 ID : 6306802014744

Option 4 ID : 6306802014743

Status : Not Answered

Chosen Option : --

Q.53 In context of Relational Algebra of Database Management System, SELECT operation is used to select a subset of the tuples from a relation that satisfy a _____.

- Ans
1. Attribute Criteria

2. Block Criteria

3. Selection Criteria

4. Relation Criteria

Question ID : 630680515572

Option 1 ID : 6306802014696

Option 2 ID : 6306802014694

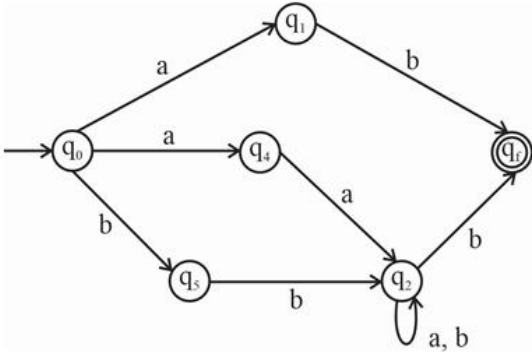
Option 3 ID : 6306802014693

Option 4 ID : 6306802014695

Status : Answered

Chosen Option : 4

Q.54 The given finite automata is equivalent to which of the following regular expression?



- Ans
- ☒ 1. $(a + b)^* (aa + bb) (a + b)^*$
 - ☒ 2. $ab + (aa + bb) (a + b)^* b$
 - ☒ 3. $ab (aa + bb)(a + b)^* b$
 - ☒ 4. $ab (aa + b) (a + b)^* a$

Question ID : 630680515545
Option 1 ID : 6306802014585
Option 2 ID : 6306802014587
Option 3 ID : 6306802014586
Option 4 ID : 6306802014588
Status : Answered
Chosen Option : 3

Q.55 What is the decimal conversion of $(1010.011)_2$?

- Ans
- ☒ 1. 12
 - ☒ 2. 14
 - ☒ 3. 10.375
 - ☒ 4. 11.375

Question ID : 630680515509
Option 1 ID : 6306802014443
Option 2 ID : 6306802014444
Option 3 ID : 6306802014441
Option 4 ID : 6306802014442
Status : Answered
Chosen Option : 4

Q.56 The following C function is an example of what type of recursion?

```
int f(int n)
{
    if(n==1)
        return 1;
    else if(n==0)
        return 0;
    else
        return(f(n-1)+f(n-2));
}
```

- Ans ☒ 1. Binary
- ☒ 2. Tail
- ☒ 3. Linear
- ☒ 4. Head

Question ID : 630680515527

Option 1 ID : 6306802014514

Option 2 ID : 6306802014515

Option 3 ID : 6306802014513

Option 4 ID : 6306802014516

Status : Answered

Chosen Option : 1

Q.57 In context of Database, which of the following is the CORRECT order for creating a database?

- A → Defining its structure (scheme)
- B → Entering data into the database
- C → Designing forms (custom screens) for displaying and entering data

- Ans ☒ 1. C → A → B
- ☒ 2. A → B → C
- ☒ 3. A → C → B
- ☒ 4. B → A → C

Question ID : 630680515567

Option 1 ID : 6306802014676

Option 2 ID : 6306802014673

Option 3 ID : 6306802014675

Option 4 ID : 6306802014674

Status : Answered

Chosen Option : 1

Q.58 Which of the following identities of regular expression is NOT correct?

- Ans
- ✖

1.

$\phi + R = R$

✖

2.

$R^* R^* = R^*$

✖

3.

$\Lambda R = R$

✔

4.

$\phi R = R$

Question ID : 630680515544

Option 1 ID : 6306802014581

Option 2 ID : 6306802014584

Option 3 ID : 6306802014583

Option 4 ID : 6306802014582

Status : Answered

Chosen Option : 4

Q.59 Consider the following confusion matrix.

	Positive (Predicted)	Negative (Predicted)
Positive (Actual)	100	50
Negative (Actual)	150	9700

What is the value of False Negative in this confusion matrix?

- Ans
- ✖

1.

9700

✔

2.

50

✖

3.

100

✖

4.

150

Question ID : 630680515598

Option 1 ID : 6306802014800

Option 2 ID : 6306802014798

Option 3 ID : 6306802014797

Option 4 ID : 6306802014799

Status : Answered

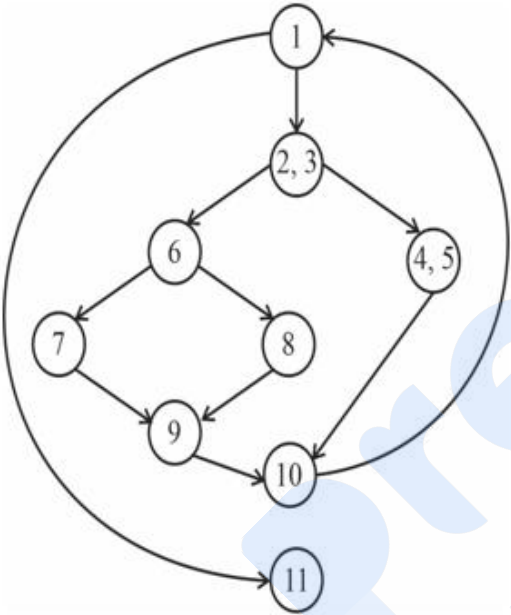
Chosen Option : 2

Q.60 The time dispatcher takes and for the dispatcher to stop one process and start another running is known as _____.

- Ans
- ☒ 1. dispatch wasting time
 - ☒ 2. dispatch latency
 - ☒ 3. dispatch turnaround time
 - ☒ 4. dispatch response time

Question ID : 630680515562
Option 1 ID : 6306802014656
Option 2 ID : 6306802014655
Option 3 ID : 6306802014653
Option 4 ID : 6306802014654
Status : Answered
Chosen Option : 2

Q.61 What is the cyclomatic complexity of the given flow graph?



- Ans
- ☒ 1. 3
 - ☒ 2. 6
 - ☒ 3. 4
 - ☒ 4. 5

Question ID : 630680515589
Option 1 ID : 6306802014761
Option 2 ID : 6306802014764
Option 3 ID : 6306802014762
Option 4 ID : 6306802014763
Status : Answered
Chosen Option : 4

Q.62 What is the output of the following postfix expression?

5, 6, 2, +, *, 8, 4, /, -

- Ans
- ☒ 1. 39
 - ☒ 2. 36
 - ☒ 3. 38
 - ☒ 4. 37

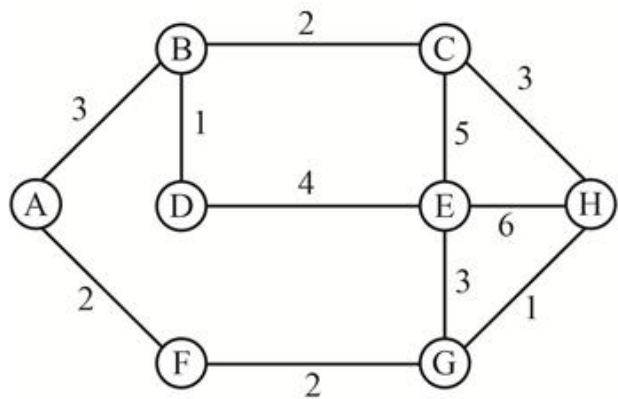
Question ID : 630680515528
Option 1 ID : 6306802014520
Option 2 ID : 6306802014517
Option 3 ID : 6306802014519
Option 4 ID : 6306802014518
Status : Answered
Chosen Option : 3

Q.63 Which of the following is NOT the part of the organization of C programming language Activation Record?

- Ans
- ☒ 1. Argument count
 - ☒ 2. Return address
 - ☒ 3. Local data
 - ☒ 4. Formal parameters

Question ID : 630680515557
Option 1 ID : 6306802014635
Option 2 ID : 6306802014636
Option 3 ID : 6306802014634
Option 4 ID : 6306802014633
Status : Answered
Chosen Option : 1

Q.64 What is the minimum cost of the spanning tree of the given graph?



- Ans
- ☒ 1. 12
 - ☒ 2. 13
 - ☒ 3. 11
 - ☒ 4. 14

Question ID : 630680515531
Option 1 ID : 6306802014530
Option 2 ID : 6306802014531
Option 3 ID : 6306802014529
Option 4 ID : 6306802014532
Status : Answered
Chosen Option : 4

Q.65 Which of the following statement is CORRECT about software testing?

- I. White box testing is performed early in the testing phase.
- II. Black box testing tends to be applied during later stages of testing.

- Ans
- ☒ 1. Neither I nor II
 - ☒ 2. Only II
 - ☒ 3. Both I and II
 - ☒ 4. Only I

Question ID : 630680515592
Option 1 ID : 6306802014776
Option 2 ID : 6306802014774
Option 3 ID : 6306802014775
Option 4 ID : 6306802014773
Status : Answered
Chosen Option : 2

Q.66 Consider the following queue of character, implemented using array of 7 memory, Front = 3 Rear = 4 Queue: -, -, A, B, __, __, __, where '-', denote empty memory cell. What is the value of front and rear after the following operation?

Enqueue C, D
Dequeue
Enqueue E, F
Dequeue

- Ans ☒ 1. Front = 3 Rear = 6
☒ 2. Front = 4 Rear = 7
☒ 3. Front = 5 Rear = 1
☒ 4. Front = 1 Rear = 4

Question ID : 630680515529
Option 1 ID : 6306802014524
Option 2 ID : 6306802014523
Option 3 ID : 6306802014522
Option 4 ID : 6306802014521
Status : Answered
Chosen Option : 3

Q.67 How many distinct binary tress are constructed using 5 nodes?

- Ans ☒ 1. 42
☒ 2. 30
☒ 3. 16
☒ 4. 5

Question ID : 630680515532
Option 1 ID : 6306802014534
Option 2 ID : 6306802014536
Option 3 ID : 6306802014535
Option 4 ID : 6306802014533
Status : Answered
Chosen Option : 2

Q.68 Which of the following is the CORRECT sequence of the phases of a compiler?

- Ans ☒ 1. Lexical analysis, syntax analysis, intermediate code generation, code generation, code optimization
☒ 2. Lexical analysis, intermediate code generation, syntax analysis, code generation, code optimization
☒ 3. Lexical analysis, intermediate code generation, syntax analysis, code optimization, code generation
☒ 4. Lexical analysis, syntax analysis, intermediate code generation, code optimization, code generation

Question ID : 630680515558
Option 1 ID : 6306802014639
Option 2 ID : 6306802014638
Option 3 ID : 6306802014637
Option 4 ID : 6306802014640
Status : Answered
Chosen Option : 4

Q.69 $10 + (1010)^* [\wedge + (1010)^*]$ is equivalent to _____, where $\wedge$ represent null.

- Ans
- ☒ 1. $(1010)^*$
 - ☒ 2. $(1010)^* + 10$
 - ☒ 3. $(1100)^*$
 - ☒ 4. $10 + (1010)^*$

Question ID : 630680515543
Option 1 ID : 6306802014577
Option 2 ID : 6306802014579
Option 3 ID : 6306802014580
Option 4 ID : 6306802014578
Status : Answered
Chosen Option : 4

Q.70 A process is _____, if it cannot affect or be affected by the other processes executing in the system.

- Ans
- ☒ 1. dependent
 - ☒ 2. independent
 - ☒ 3. co-operating
 - ☒ 4. self-supporting

Question ID : 630680515560
Option 1 ID : 6306802014646
Option 2 ID : 6306802014647
Option 3 ID : 6306802014645
Option 4 ID : 6306802014648
Status : Answered
Chosen Option : 2

Q.71 Which derivation is also known as canonical derivations?

- Ans
- ☒ 1. Left most derivation in reverse
 - ☒ 2. Left most derivation
 - ☒ 3. Right most derivation
 - ☒ 4. Right most derivations in reverse

Question ID : 630680515554
Option 1 ID : 6306802014622
Option 2 ID : 6306802014623
Option 3 ID : 6306802014624
Option 4 ID : 6306802014621
Status : Answered
Chosen Option : 4

Q.72 K-Nearest Neighbours algorithm is a _____ classification algorithm that classifies new data point based on the nearest data point.

- Ans

✖

1. Unsupervised

✔

2. Supervised

✖

3. Reinforcement

✖

4. Deep learning

Question ID : 630680515596

Option 1 ID : 6306802014790

Option 2 ID : 6306802014789

Option 3 ID : 6306802014791

Option 4 ID : 6306802014792

Status : Not Answered

Chosen Option : --

Q.73 Match the following algorithm with its average complexity.

	Algorithm		Average Complexity
I	Binary search	1	$O(n^2)$
II	Quick sort	2	$O(\log n)$
III	Linear search	3	$O(n \log n)$
IV	Selection sort	4	$O(n)$

- Ans

✖

1. I – 4; II – 3; III – 2; IV – 1

✔

2. I – 2; II – 3; III – 4; IV – 1

✖

3. I – 1; II – 4; III – 2; IV – 3

✖

4. I – 3; II – 1; III – 2; IV – 4

Question ID : 630680515542

Option 1 ID : 6306802014576

Option 2 ID : 6306802014575

Option 3 ID : 6306802014573

Option 4 ID : 6306802014574

Status : Answered

Chosen Option : 1

Q.74 In any computer network, a communication protocol normally perform, which of the following functions for efficient and error free transmission of data?

- I. Data Routing
- II. Procedure and order of Transmission
- III. Data security
- IV. Data formatting

- Ans
- ☒ 1. Only II, III and IV
 - ☒ 2. Only I, II and III
 - ☒ 3. I, II, III and IV
 - ☒ 4. Only I, III, IV

Question ID : 630680515581
Option 1 ID : 6306802014730
Option 2 ID : 6306802014729
Option 3 ID : 6306802014732
Option 4 ID : 6306802014731
Status : Answered
Chosen Option : 4

Q.75 What is the least number which when divided by 12, 16, 18 and 30 leaves a remainder of 4 in each case but is completely divisible by 7?

- Ans
- ☒ 1. 4245
 - ☒ 2. 4242
 - ☒ 3. 2324
 - ☒ 4. 2884

Question ID : 630680515606
Option 1 ID : 6306802014830
Option 2 ID : 6306802014829
Option 3 ID : 6306802014832
Option 4 ID : 6306802014831
Status : Answered
Chosen Option : 3

Q.76 Which of the following is NOT a process state?

- Ans
- ☒ 1. Ready
 - ☒ 2. Start
 - ☒ 3. New
 - ☒ 4. Running

Question ID : 630680515559
Option 1 ID : 6306802014644
Option 2 ID : 6306802014641
Option 3 ID : 6306802014642
Option 4 ID : 6306802014643
Status : Answered
Chosen Option : 2

Q.77 Match of the language with its machine format.

	Language		Machine
I	Unrestricted language	1	Finite automata
II	Context sensitive language	2	Push down automata
III	Context free language	3	Linear bounded automata
IV	Regular expression	4	Turing machine

- Ans
1. I – 2; II – 3; III – 4; IV – 1

2. I – 4; II – 2; III – 1; IV – 3

3. I – 3; II – 4; III – 1; IV – 2

4. I – 4; II – 3; III – 2; IV – 1

Question ID : 630680515547

Option 1 ID : 6306802014593

Option 2 ID : 6306802014595

Option 3 ID : 6306802014594

Option 4 ID : 6306802014596

Status : Answered

Chosen Option : 4

Q.78 Which of the following statement is CORRECT?

- I. An input device is an electromechanical device that accepts data from the outside world and translates it into a form a computer can interpret.
- II. An output device is an electromechanical device that accepts data from a computer and translates them into a form suitable for use by outside world.

- Ans
1. Only II

2. Both I and II

3. Only I

4. Neither I nor II

Question ID : 630680515520

Option 1 ID : 6306802014486

Option 2 ID : 6306802014487

Option 3 ID : 6306802014485

Option 4 ID : 6306802014488

Status : Answered

Chosen Option : 3

Q.79 In the context of Relational Algebra of Database Management System, which of the following is a symbol JOIN operation?

Ans

- ✖ 1.


- ✖ 2.


- ✔ 3.


- ✖ 4.



Question ID : 630680515575
Option 1 ID : 6306802014706
Option 2 ID : 6306802014708
Option 3 ID : 6306802014707
Option 4 ID : 6306802014705
Status : Answered
Chosen Option : 4

Q.80 Which of the following pair is CORRECT?

- I. Associative law : $(x*y)*z = x*(y*z)$
II. Distributive law : $x*(y+z) = (x*y)+(x*z)$

Ans

- ✖ 1.

Only II
- ✔ 2.

Both I and II
- ✖ 3.

Only I
- ✖ 4.

Neither I nor II

Question ID : 630680515512
Option 1 ID : 6306802014454
Option 2 ID : 6306802014455
Option 3 ID : 6306802014453
Option 4 ID : 6306802014456
Status : Answered
Chosen Option : 2

Q.81 Which view of the quality argues that quality is something you immediately recognize but cannot explicitly define according to David Galvin of the Harvard Business school?

Ans

- ✖ 1.

Manufacturer's view
- ✖ 2.

Product view
- ✔ 3.

Transcendental view
- ✖ 4.

User view

Question ID : 630680515590
Option 1 ID : 6306802014767
Option 2 ID : 6306802014768
Option 3 ID : 6306802014765
Option 4 ID : 6306802014766
Status : Not Answered
Chosen Option : --

Q.82 Name the phase of the unified process model where customer communication and planning take place.

- Ans
- ☒ 1. Construction phase
 - ☒ 2. Elaboration phase
 - ☒ 3. Transition phase
 - ☒ 4. Inception phase

Question ID : 630680515586
Option 1 ID : 6306802014751
Option 2 ID : 6306802014750
Option 3 ID : 6306802014752
Option 4 ID : 6306802014749
Status : Answered
Chosen Option : 1

Q.83 Consider 2 dimensional array A[10][15]. Assume that each element takes one memory location and base address of array A is 100. Consider the lower bound of row and column as 0. What is the address of A[i][j] if array A is stored in row major from?

- Ans
- ☒ 1. $i + 15j + 100$
 - ☒ 2. $10i + j + 100$
 - ☒ 3. $i + 10j + 100$
 - ☒ 4. $15i + j + 100$

Question ID : 630680515526
Option 1 ID : 6306802014511
Option 2 ID : 6306802014510
Option 3 ID : 6306802014512
Option 4 ID : 6306802014509
Status : Answered
Chosen Option : 3

Q.84 In the push down automata, transitional function δ is in the form _____.

- Ans
- ☒ 1. $Q \times \Sigma \times \Gamma \rightarrow Q$
 - ☒ 2. $Q \times \Sigma \rightarrow Q$
 - ☒ 3. $Q \times (\Sigma \cup \{\lambda\}) \times \Gamma \rightarrow (Q, \Gamma^*)$
 - ☒ 4. $Q \times \Sigma \rightarrow (Q, \Gamma)$

Question ID : 630680515549
Option 1 ID : 6306802014604
Option 2 ID : 6306802014602
Option 3 ID : 6306802014601
Option 4 ID : 6306802014603
Status : Answered
Chosen Option : 2

Q.85 _____ begins at the vortex of the spiral and concentrate on each component of the software as implemented in source code.

- Ans
- ☒ 1. Integration testing
 - ☒ 2. Validation testing
 - ☒ 3. System testing
 - ☒ 4. Unit testing

Question ID : 630680515588
Option 1 ID : 6306802014758
Option 2 ID : 6306802014759
Option 3 ID : 6306802014760
Option 4 ID : 6306802014757
Status : Answered
Chosen Option : 2

Q.86 Which of the following is part of the hierarchical storage system?

- I. Cache memory
- II. Near-line mass storage devices

- Ans
- ☒ 1. Only I
 - ☒ 2. Neither I nor II
 - ☒ 3. Only II
 - ☒ 4. Both I and II

Question ID : 630680515523
Option 1 ID : 6306802014497
Option 2 ID : 6306802014500
Option 3 ID : 6306802014498
Option 4 ID : 6306802014499
Status : Answered
Chosen Option : 1

Q.87 Match the component of software architecture with its roles.

	Component		Role
I	Control component	1	That implements a complete or partial function i.e. required by the customer
II	Problem domain component	2	Responsible for function that support the processing required in the problem domain
III	Infrastructure component	3	Co-ordinate the invocation of all other problem domain components

- Ans
- ☒ 1. I – 3; II – 2; III – 1
 - ☒ 2. I – 1; II – 3; III – 2
 - ☒ 3. I – 3; II – 1; III – 2
 - ☒ 4. I – 1; II – 2; III – 3

Question ID : 630680515587
Option 1 ID : 6306802014753
Option 2 ID : 6306802014756
Option 3 ID : 6306802014755
Option 4 ID : 6306802014754
Status : Not Answered
Chosen Option : --

Q.88 Which of the following is the mostly used activation function in the area of deep learning?

- Ans ☒ 1. Rectified linear unit function
- ☐ 2. Identity function
- ☐ 3. Step function
- ☐ 4. Sigmoid function

Question ID : 630680515600
Option 1 ID : 6306802014805
Option 2 ID : 6306802014807
Option 3 ID : 6306802014806
Option 4 ID : 6306802014808
Status : Not Answered
Chosen Option : --

Q.89 Which of the following is NOT part of the mechanical diagram of the Turing machine?

- Ans ☒ 1. Queue
- ☐ 2. Finite control
- ☐ 3. Input tape
- ☐ 4. Read-write head

Question ID : 630680515550
Option 1 ID : 6306802014608
Option 2 ID : 6306802014607
Option 3 ID : 6306802014605
Option 4 ID : 6306802014606
Status : Answered
Chosen Option : 1

Q.90 Dot-matrix printers are character printers that print _____ character at a time.

- Ans ☒ 1. one
- ☐ 2. three
- ☐ 3. two
- ☐ 4. four

Question ID : 630680515522
Option 1 ID : 6306802014493
Option 2 ID : 6306802014495
Option 3 ID : 6306802014494
Option 4 ID : 6306802014496
Status : Answered
Chosen Option : 1

Q.91 Three unbiased dices are thrown, what is the probability of getting a sum of at least 11?

- Ans
- ☒ 1. 1/2
 - ☒ 2. 13/36
 - ☒ 3. 1/3
 - ☒ 4. 11/36

Question ID : 630680515607
Option 1 ID : 6306802014834
Option 2 ID : 6306802014836
Option 3 ID : 6306802014833
Option 4 ID : 6306802014835
Status : Answered
Chosen Option : 2

Q.92 _____ acts as a high-speed buffer between CPU and main memory and computer systems use it to store temporarily very active data and instructions during processing.

- Ans
- ☒ 1. EPROM
 - ☒ 2. Flash memory
 - ☒ 3. PROM
 - ☒ 4. Cache memory

Question ID : 630680515519
Option 1 ID : 6306802014482
Option 2 ID : 6306802014484
Option 3 ID : 6306802014483
Option 4 ID : 6306802014481
Status : Answered
Chosen Option : 4

Q.93 Which of the following statement is correct regarding complements?

- I. Complements are used in digital computers for simplifying the subtraction operation and for logical manipulations.
- II. There are two types of complements for each base-r system: the r's complement and (r-1)'s complement.

- Ans
- ☒ 1. Both I and II
 - ☒ 2. Only I
 - ☒ 3. Neither I nor II
 - ☒ 4. Only II

Question ID : 630680515511
Option 1 ID : 6306802014451
Option 2 ID : 6306802014449
Option 3 ID : 6306802014452
Option 4 ID : 6306802014450
Status : Answered
Chosen Option : 1

Q.94 Which of the following statement is CORRECT regarding FLIP-FLOPS?

- I. A FLIP-FLOP circuit can maintain a binary state indefinitely (as long as power is applied) until directed by an input signal to switch states.
- II. The major differences among various types of FLIP-FLOPS are in the number of inputs they possess and in the manner in which the inputs affect the binary state.

- Ans
- ☒ 1. Only II
 - ☒ 2. Neither I nor II
 - ☒ 3. Only I
 - ☒ 4. Both I and II

Question ID : 630680515517
Option 1 ID : 6306802014474
Option 2 ID : 6306802014476
Option 3 ID : 6306802014473
Option 4 ID : 6306802014475
Status : Not Answered
Chosen Option : --

Q.95 Which of the following formula is used to calculate the sensitivity of a model?

- Ans
- ☒ 1. $\frac{FP}{TP + FN}$
 - ☒ 2. $\frac{TN}{TP + FN}$
 - ☒ 3. $\frac{TP}{TP + FN}$
 - ☒ 4. $\frac{FN}{TP + FN}$

Question ID : 630680515599
Option 1 ID : 6306802014804
Option 2 ID : 6306802014801
Option 3 ID : 6306802014803
Option 4 ID : 6306802014802
Status : Not Answered
Chosen Option : --

Q.96 Match the machine learning technique with its way of working.

	Machine learning type		Methods
I	Supervised learning	1	Utilizes data that is not labelled and attempts to find patterns by clustering similar objects together
II	Unsupervised learning	2	Work on the principle of reward and punishment
III	Reinforcement	3	Utilizes a labelled dataset

- Ans
1. I – 1; II – 3; III – 2

2. I – 1; II – 2; III – 3

3. I – 3; II – 2; III – 1

4. I – 3; II – 1; III – 2

Question ID : 630680515593

Option 1 ID : 6306802014779

Option 2 ID : 6306802014778

Option 3 ID : 6306802014777

Option 4 ID : 6306802014780

Status : Not Answered

Chosen Option : --

Q.97 If $w : x : y = 3 : 5 : 2$ and $y : z = 2 : 5$, then what is the value of $w : x : y : z$?

- Ans
1. 2 : 5 : 2 : 5

2. 4 : 5 : 3 : 5

3. 3 : 5 : 2 : 5

4. 3 : 5 : 2 : 4

Question ID : 630680515602

Option 1 ID : 6306802014815

Option 2 ID : 6306802014816

Option 3 ID : 6306802014814

Option 4 ID : 6306802014813

Status : Answered

Chosen Option : 3

Q.98 In context to Database management system which of the following is CORRECT regarding query by example?

- I. A Query by example form collects all information from a user for composing query language statements for search criterion.
- II. Query by example relieves users from remembering query language keywords and using them with correct syntax to form quires.

- Ans
1. Only I

2. Neither I nor II

3. Both I and II

4. Only II

Question ID : 630680515571

Option 1 ID : 6306802014689

Option 2 ID : 6306802014692

Option 3 ID : 6306802014691

Option 4 ID : 6306802014690

Status : Answered

Chosen Option : 1

Q.99 Which of the following is NOT the necessary condition for the deadlock?

- Ans ☒ 1. Preemption
- ☐ 2. Circular wait
- ☐ 3. Mutual exclusion
- ☐ 4. Hold and wait

Question ID : 630680515565
Option 1 ID : 6306802014667
Option 2 ID : 6306802014668
Option 3 ID : 6306802014665
Option 4 ID : 6306802014666
Status : Answered
Chosen Option : 1

Q.100 Which of the following statement is CORRECT regarding Entropy of which is a measurement the uncertainty in data?

- I. Low entropy indicates that the data labels are quite uniform.
- II. High entropy means the labels are in chaos.

- Ans ☒ 1. Both I and II
- ☐ 2. Only II
- ☐ 3. Neither I nor II
- ☐ 4. Only I

Question ID : 630680515597
Option 1 ID : 6306802014795
Option 2 ID : 6306802014794
Option 3 ID : 6306802014796
Option 4 ID : 6306802014793
Status : Answered
Chosen Option : 2