

**Question Paper Name :** 87 Computer Science and Applications 26th June 2025 Shift 1  
**Subject Name :** 87 Computer Science and Applications  
**Creation Date :** 2025-06-26 18:06:58  
**Duration :** 180  
**Total Marks :** 300  
**Display Marks:** Yes

### Computer Science and Applications and General Paper

**Group Number :** 1  
**Group Id :** 42558933  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 180  
**Show Attended Group? :** No  
**Edit Attended Group? :** No  
**Break time :** 0  
**Group Marks :** 300

### General Paper

**Section Id :** 42558971  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional :** Mandatory  
**Number of Questions :** 42  
**Number of Questions to be attempted :** 42  
**Section Marks :** 100  
**Maximum Instruction Time :** 0  
**Sub-Section Number :** 1  
**Sub-Section Id :** 425589199  
**Question Shuffling Allowed :** No

Question Id : 4255894904 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
 Question Pattern Type : NonMatrix  
 Question Numbers : (1 to 5)

The following table shows the cumulative percentage of the total number of students appearing in the Hindi and Punjabi examination and the cumulative number of students appearing in the Hindi examination and scoring marks in five different categories, namely, 80 and above; 70 and above; 60 and above; 50 and above; and 40 and above. Based on the data in the table, answer the questions that follow.

Marks-wise distribution of students

Marks (Out of 100)	Cumulative percentage of the total number of students who appeared in Hindi and Punjabi	Cumulative number of students who appeared in Hindi
80 and above	15%	108
70 and above	35%	264
60 and above	65%	424
50 and above	90%	554
40 and above	100%	624

- Note :
- (1) Total number of students who attended the exam is 1200.
  - (2) No student failed in the examination.
  - (3) Each student appeared in only one exam, that is, either in Hindi or in Punjabi exam.

**Sub questions**

Question Number : 1 Question Id : 4255894905 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the sum of the number of students who scored 70 or more than 70 but less than 80 marks in Hindi and the number of students who scored 80 or more than 80 marks in Punjabi ?

- (1) 330
- (2) 228
- (3) 272
- (4) 284

**Options :**

- 42558919056. 1
- 42558919057. 2
- 42558919058. 3
- 42558919059. 4

Question Number : 2 Question Id : 4255894906 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the ratio of the number of students who scored 50 or more than 50 marks but less than 60 marks in Hindi to the number of students who scored 40 or more than 40 marks but less than 50 marks in Punjabi ?

- (1) 12 : 11
- (2) 8 : 7
- (3) 3 : 1
- (4) 13 : 5

**Options :**

- 42558919060. 1
- 42558919061. 2
- 42558919062. 3
- 42558919063. 4

Question Number : 3 Question Id : 4255894907 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The number of students who scored 80 and above marks in Hindi is \_\_\_\_\_ % less than the number of students who scored 60 or more than 60 marks but less than 70 marks in Punjabi.

- (1) 46
- (2) 54
- (3) 44
- (4) 52

**Options :**

- 42558919064. 1
- 42558919065. 2
- 42558919066. 3
- 42558919067. 4

**Question Number : 4 Question Id : 4255894908 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

What is the difference between the number of students who scored 70 or more than 70 marks but less than 80 marks in Punjabi and the number of students who scored 40 or more than 40 marks but less than 50 marks in Hindi ?

- (1) 20
- (2) 16
- (3) 14
- (4) 30

**Options :**

- 42558919068. 1
- 42558919069. 2
- 42558919070. 3
- 42558919071. 4

**Question Number : 5 Question Id : 4255894909 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

What is the average of the number of students who scored 50 or more than 50 marks but less than 60 marks in Punjabi and the number of students who scored 50 or more than 50 marks but less than 60 marks in Hindi ?

- (1) 180
- (2) 150
- (3) 200
- (4) 140

**Options :**

- 42558919072. 1
- 42558919073. 2
- 42558919074. 3
- 42558919075. 4

निम्न तालिका में हिन्दी व पंजाबी परीक्षा में भाग लेने वाले विद्यार्थियों की कुल संख्या का संचित प्रतिशत व हिन्दी परीक्षा में भाग लेने और 80 व अधिक; 70 व अधिक; 60 व अधिक; 50 व अधिक, और 40 व अधिक की पांच भिन्न श्रेणियों में अंक प्राप्त करने वाले विद्यार्थियों की संचित संख्या दर्शाई गई है। तालिका में प्रदत्त डाटा के आधार पर आगे पूछे गए प्रश्नों के उत्तर दीजिए :

**विद्यार्थियों का अंक-वार वितरण**

अंक (100 में से)	हिन्दी व पंजाबी परीक्षा में भाग लेने वाले विद्यार्थियों की कुल संख्या का संचित प्रतिशत	हिन्दी परीक्षा में भाग लेने वाले विद्यार्थियों की संचित संख्या
80 व अधिक	15%	108
70 व अधिक	35%	264
60 व अधिक	65%	424
50 व अधिक	90%	554
40 व अधिक	100%	624

- टिप्पणी :
- (1) परीक्षा में उपस्थित विद्यार्थियों की कुल संख्या 1200 है।
  - (2) परीक्षा में कोई भी विद्यार्थी अनुत्तीर्ण नहीं हुआ है।
  - (3) प्रत्येक विद्यार्थी ने केवल एक परीक्षा अर्थात हिन्दी परीक्षा अथवा पंजाबी परीक्षा में ही भाग लिया है।

**Sub questions**

Question Number : 1 Question Id : 4255894905 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

हिन्दी में 70 अथवा 70 से अधिक परन्तु 80 से कम अंक प्राप्त करने वाले विद्यार्थियों की संख्या व पंजाबी में 80 अथवा 80 से अधिक अंक प्राप्त करने वाले विद्यार्थियों की संख्या का योग क्या है ?

- (1) 330
- (2) 228
- (3) 272
- (4) 284

**Options :**

42558919056. 1  
42558919057. 2  
42558919058. 3  
42558919059. 4

Question Number : 2 Question Id : 4255894906 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

हिन्दी में 50 अथवा 50 से अधिक परन्तु 60 से कम अंक प्राप्त करने वाले विद्यार्थियों की संख्या का पंजाबी में 40 अथवा 40 अंक से अधिक परन्तु 50 अंक से कम अंक प्राप्त करने वाले विद्यार्थियों की संख्या से अनुपात क्या है ?

- (1) 12 : 11
- (2) 8 : 7
- (3) 3 : 1
- (4) 13 : 5

**Options :**

42558919060. 1  
42558919061. 2  
42558919062. 3  
42558919063. 4

Question Number : 3 Question Id : 4255894907 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

हिंदी में 80 अथवा 80 से अधिक अंक प्राप्त करने वाले विद्यार्थियों की संख्या का पंजाबी में 60 अथवा 60 अंकों से अधिक परन्तु 70 अंकों से कम अंक प्राप्त करने वाले विद्यार्थियों की संख्या से \_\_\_\_\_ % कम है।

- (1) 46
- (2) 54
- (3) 44
- (4) 52

**Options :**

- 42558919064. 1
- 42558919065. 2
- 42558919066. 3
- 42558919067. 4

**Question Number : 4 Question Id : 4255894908 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

पंजाबी में 70 अथवा 70 अंक से अधिक परन्तु 80 अंक से कम प्राप्तांक वाले विद्यार्थियों की संख्या और हिंदी में 40 अथवा 40 अंक से अधिक परन्तु 50 अंक से कम प्राप्तांक वाले विद्यार्थियों की संख्या के बीच का अंतर क्या है?

- (1) 20
- (2) 16
- (3) 14
- (4) 30

**Options :**

- 42558919068. 1
- 42558919069. 2
- 42558919070. 3
- 42558919071. 4

**Question Number : 5 Question Id : 4255894909 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

पंजाबी में 50 अथवा 50 अंक से अधिक परन्तु 60 अंक से कम प्राप्तांक वाले विद्यार्थियों की संख्या और हिंदी में 50 अथवा 50 अंक से अधिक परन्तु 60 अंक से कम प्राप्तांक वाले विद्यार्थियों की संख्या का औसत क्या है?

- (1) 180
- (2) 150
- (3) 200
- (4) 140

**Options :**

- 42558919072. 1
- 42558919073. 2
- 42558919074. 3
- 42558919075. 4

**Sub-Section Number :**

2

**Sub-Section Id :**

425589200

**Question Shuffling Allowed :**

Yes

Question Number : 6 Question Id : 4255894910 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The role of a teacher in the simulation model is that of \_\_\_\_\_.

- (1) Explaining
- (2) Designing
- (3) Describing
- (4) Chosing activity

Options :

42558919076. 1  
42558919077. 2  
42558919078. 3  
42558919079. 4

Question Number : 6 Question Id : 4255894910 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

अनुकरण मॉडल में एक शिक्षक की भूमिका \_\_\_\_\_ की है।

- (1) स्पष्ट करने (समझाने)
- (2) अभिकल्पनीय
- (3) वर्णन करने
- (4) कार्यकलाप चुनने

Options :

42558919076. 1  
42558919077. 2  
42558919078. 3  
42558919079. 4

Question Number : 7 Question Id : 4255894911 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The CBCS (Choice Based Credit System) in higher education promotes :

- (1) Rigid Curriculum structure
- (2) Flexibility in course selection
- (3) Limited student choices
- (4) Only theoretical learning

Options :

42558919080. 1  
42558919081. 2  
42558919082. 3  
42558919083. 4

Question Number : 7 Question Id : 4255894911 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

उच्चतर शिक्षा में सी.बी.सी.एस (चयन आधारित क्रेडिट सिस्टम) निम्नलिखित को प्रोत्साहित करता है :

- (1) अनम्य पाठ्यचर्या संरचना
- (2) पाठ्यक्रम चयन में नमनीयता
- (3) छात्रों के सामने सीमित चयन के विकल्प
- (4) केवल सैद्धान्तिक अधिगम

Options :

42558919080. 1  
42558919081. 2  
42558919082. 3  
42558919083. 4

Question Number : 8 Question Id : 4255894912 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the problem-solving strategy.

- (A) Generate many possible solutions
- (B) Determine how to implement the solution and evaluate the success of the solution
- (C) Make a decision
- (D) Evaluate each solution
- (E) Define the problem

Choose the **correct** answer from the options given below.

- (1) B, E, A, D, C
- (2) E, A, D, C, B
- (3) A, B, C, D, E
- (4) C, A, B, E, D

Options :

- 42558919084. 1
- 42558919085. 2
- 42558919086. 3
- 42558919087. 4

Question Number : 8 Question Id : 4255894912 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

समस्या-समाधान की रणनीतियों को व्यवस्थित कीजिए :

- (A) अनेक संभव समाधानों को उत्पन्न करना
- (B) यह निर्धारित करना कि समाधान को कैसे क्रियान्वित किया जाए और समाधान की सफलता का कैसे मूल्यांकन किया जाए
- (C) निर्णय लेना
- (D) प्रत्येक समाधान का मूल्यांकन करना
- (E) समस्या को परिभाषित करना

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) B, E, A, D, C
- (2) E, A, D, C, B
- (3) A, B, C, D, E
- (4) C, A, B, E, D

Options :

- 42558919084. 1
- 42558919085. 2
- 42558919086. 3
- 42558919087. 4

Question Number : 9 Question Id : 4255894913 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Learning for all implies :

- (A) Inclusive Education
- (B) Equitable Education
- (C) Inclusive and Equitable Education
- (D) Quality Education
- (E) Categorized based Education

Choose the **correct** answer from the options given below.

- (1) A, B and D only
- (2) A and E only
- (3) C only
- (4) D only

Options :

- 42558919088. 1
- 42558919089. 2
- 42558919090. 3
- 42558919091. 4

Question Number : 9 Question Id : 4255894913 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सभी के लिए अधिगम का तात्पर्य है :

- (A) समावेशी शिक्षा
- (B) न्यायसंगत शिक्षा
- (C) समावेशी और न्यायसंगत शिक्षा
- (D) गुणवत्तापरक शिक्षा
- (E) वर्गीकरण-आधारित शिक्षा

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) केवल A, B और D
- (2) केवल A और E
- (3) केवल C
- (4) केवल D

Options :

- 42558919088. 1
- 42558919089. 2
- 42558919090. 3
- 42558919091. 4

Question Number : 10 Question Id : 4255894914 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II :

**List - I**  
(Learning style)

- A. Convergent
- B. Divergent
- C. Assimilation
- D. Accommodative

**List - II**  
(Strengths)

- I. Creating theoretical model
- II. Practical Application of ideas
- III. Carrying out plans and tasks that involves students in new experiences
- IV. Imaginative ability and generation of ideas

Choose the **correct** answer from the options given below :

- (1) A-I, B-II, C-III, D-IV
- (2) A-II, B-I, C-III, D-IV
- (3) A-II, B-IV, C-I, D-III
- (4) A-IV, B-I, C-III, D-II

**Options :**

42558919092. 1

42558919093. 2

42558919094. 3

42558919095. 4

Question Number : 10 Question Id : 4255894914 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची - I को सूची - II से सुमेलित करे :

**सूची - I**  
(अधिगम शैली)

- A. अभिसरित
- B. भिन्न
- C. आत्मसात्करण
- D. समायोजनपूर्ण

**सूची - II**  
(शक्ति)

- I. सैद्धांतिक निदर्श को सृजित करना
- II. विचारों का अनुप्रयोग
- III. उन योजनाओं और कार्यों को करना, जिनमें नए अनुभवों में विद्यार्थी भागीदारी करते हैं।
- IV. कल्याणात्मक क्षमता और विचारों को उत्पन्न करना

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) A-I, B-II, C-III, D-IV
- (2) A-II, B-I, C-III, D-IV
- (3) A-II, B-IV, C-I, D-III
- (4) A-IV, B-I, C-III, D-II

**Options :**

42558919092. 1

42558919093. 2

42558919094. 3

42558919095. 4

Question Number : 11 Question Id : 4255894915 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is Exploratory Research ?

- (1) It describes social situations, social events, social systems, social structures etc. The researcher observes/studies and then describes what did he find ?
- (2) It studies subject about which either no information or the limited information is available.
- (3) It explains the causes of social phenomena. Describing the magnitude and nature of crimes committed by females in India is one aspect of female crime but why do they commit crime is its explanatory aspect.
- (4) It is based on common sense knowledge based on the accumulated experiences and beliefs of the people.

Options :

- 42558919096. 1
- 42558919097. 2
- 42558919098. 3
- 42558919099. 4

Question Number : 11 Question Id : 4255894915 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

गवेषणात्मक शोध क्या होता है ?

- (1) यह सामाजिक स्थितियों, सामाजिक घटनाओं, सामाजिक व्यवस्थाओं, सामाजिक संरचनाओं, आदि का वर्णन करता है। शोधकर्ता अवलोकन/अध्ययन करता है और तब यह वर्णन करता है कि उसने क्या पाया।
- (2) यह ऐसे विषय का अध्ययन करता है जिसके बारे में या तो कोई सूचना उपलब्ध नहीं है अथवा सीमित सूचना उपलब्ध है।
- (3) यह सामाजिक परिघटना के कारणों की व्याख्या करता है। भारत में महिलाओं द्वारा किए जा रहे अपराधों के विस्तार व प्रकृति का वर्णन करना महिला अपराध का एक पक्ष है परन्तु वे ये अपराध क्यों करती हैं यह उसका व्याख्यात्मक पक्ष है।
- (4) यह लोगों के संचित अनुभव व विश्वासों पर आधारित सहज बुद्धि ज्ञान है।

Options :

- 42558919096. 1
- 42558919097. 2
- 42558919098. 3
- 42558919099. 4

Question Number : 12 Question Id : 4255894916 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is Explanatory research ?

- (1) It studies subject about which either no information or the limited information is available.
- (2) It describes social situations, social events, social systems, social structures etc. The researcher observes/studies and then describes what did he find ?
- (3) It explains the causes of social phenomena. Describing the magnitude and nature of crimes committed by females in India is one aspect of female crime but why do they commit crime is its explanatory aspect.
- (4) It is based on common sense knowledge based on the accumulated experiences and beliefs of the people.

Options :

- 42558919100. 1
- 42558919101. 2
- 42558919102. 3
- 42558919103. 4

Question Number : 12 Question Id : 4255894916 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

वर्णनात्मक शोध क्या होता है ?

- (1) यह ऐसे विषय का अध्ययन करता है जिसके बारे में या तो कोई सूचना उपलब्ध नहीं है या सीमित सूचना उपलब्ध है।
- (2) यह सामाजिक स्थितियों, सामाजिक घटनाओं, सामाजिक व्यवस्थाओं, सामाजिक संरचनाओं, आदि का वर्णन करता है। शोधकर्ता अवलोकन/अध्ययन करता है और तब यह वर्णन करता है कि उसने क्या पाया है ?
- (3) यह सामाजिक परिघटना के कारणों की व्याख्या करता है। भारत में महिलाओं द्वारा किए जा रहे अपराधों के विस्तार व प्रकृति का वर्णन करना महिला अपराध का एक पक्ष है परन्तु वे ये अपराध क्यों करती हैं, यह उसका व्याख्यात्मक पक्ष है।
- (4) यह लोगों के संचित अनुभव व विश्वासों पर आधारित सहजबुद्धि ज्ञान होता है।

Options :

- 42558919100. 1
- 42558919101. 2
- 42558919102. 3
- 42558919103. 4

Question Number : 13 Question Id : 4255894917 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Standard deviation (S) and coefficient of Variation (CV Expressed as a percentage) of different datasets are given in A-D, below. Compute the mean of each dataset and arrange in ascending order.

- A.  $S = 4, CV = 40/9$
- B.  $S = 5, CV = 6.25$
- C.  $S = 14, CV = 70/3$
- D.  $S = 16, CV = 160/7$

Choose the correct answer from the options given below :

- (1) C, B, D, A
- (2) C, D, B, A
- (3) A, D, B, C
- (4) D, B, C, A

Options :

- 42558919104. 1
- 42558919105. 2
- 42558919106. 3
- 42558919107. 4

Question Number : 13 Question Id : 4255894917 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

भिन्न डाटासेटों के मानक विचलन (S) और प्रसरण के सहगुणांक (CV प्रतिशतता में व्यक्त) नीचे A-D में दिए गए हैं। प्रत्येक डाटासेट के माध्य की गणना कीजिए और आरोही क्रम में व्यवस्थित कीजिए :

- A.  $S = 4, CV = 40/9$
- B.  $S = 5, CV = 6.25$
- C.  $S = 14, CV = 70/3$
- D.  $S = 16, CV = 160/7$

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) C, B, D, A
- (2) C, D, B, A
- (3) A, D, B, C
- (4) D, B, C, A

Options :

- 42558919104. 1
- 42558919105. 2
- 42558919106. 3
- 42558919107. 4

Question Number : 14 Question Id : 4255894918 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are the risks of plagiarism for the researcher who plagiarises ?

- A. Losing of the Inspiration
- B. Losing of the obtained titles
- C. Destruction of obtained solutions
- D. Destroying the public image

Choose the **most appropriate** answer from the options given below :

- (1) A and C Only
- (2) B and C Only
- (3) B and D Only
- (4) C and D Only

Options :

- 42558919108. 1
- 42558919109. 2
- 42558919110. 3
- 42558919111. 4

Question Number : 14 Question Id : 4255894918 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

शोधकर्ता हेतु निम्न में से क्या-क्या साहित्यिक चौर्य के जोखिम हैं ?

- A. प्रेरणा का ह्रास
- B. प्राप्त शीर्षकों का ह्रास
- C. प्राप्त समाधान का विनाश
- D. लोक छवि का विध्वंस

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) केवल A और C
- (2) केवल B और C
- (3) केवल B और D
- (4) केवल C और D

Options :

42558919108. 1

42558919109. 2

42558919110. 3

42558919111. 4

Question Number : 15 Question Id : 4255894919 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II :

List - I

List - II

[Population mean( $\mu$ ) and  $\frac{1}{N} \sum x_i^2$ ]

[Population standard deviation ( $\sigma$ )]

A.  $\mu = 9, \frac{1}{N} \sum x_i^2 = 117$

I. 10

B.  $\mu = 10, \frac{1}{N} \sum x_i^2 = 200$

II. 4

C.  $\mu = 11, \frac{1}{N} \sum x_i^2 = 202$

III. 6

D.  $\mu = 12, \frac{1}{N} \sum x_i^2 = 160$

IV. 9

Choose the correct answer from the options given below :

- (1) A-III, B-IV, C-I, D-II
- (2) A-II, B-I, C-IV, D-III
- (3) A-III, B-I, C-IV, D-II
- (4) A-I, B-IV, C-II, D-III

Options :

42558919112. 1

42558919113. 2

42558919114. 3

42558919115. 4

Question Number : 15 Question Id : 4255894919 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची - I को सूची - II से सुमेलित करे :

सूची - I

[ जनसंख्या माध्य ( $\mu$ ) और  $\frac{1}{N} \sum x_i^2$  ]

A.  $\mu = 9, \frac{1}{N} \sum x_i^2 = 117$

B.  $\mu = 10, \frac{1}{N} \sum x_i^2 = 200$

C.  $\mu = 11, \frac{1}{N} \sum x_i^2 = 202$

D.  $\mu = 12, \frac{1}{N} \sum x_i^2 = 160$

सूची - II

[ जनसंख्या मानक विचलन ( $\sigma$ ) ]

I. 10

II. 4

III. 6

IV. 9

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) A-III, B-IV, C-I, D-II
- (2) A-II, B-I, C-IV, D-III
- (3) A-III, B-I, C-IV, D-II
- (4) A-I, B-IV, C-II, D-III

Options :

42558919112. 1

42558919113. 2

42558919114. 3

42558919115. 4

Question Number : 16 Question Id : 4255894920 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Who directed the first talkie feature film made in India ?

- (1) Ardeshar Irani
- (2) Ritwik Ghatak
- (3) Dada Saheb Phalke
- (4) Bimal Roy

Options :

42558919116. 1

42558919117. 2

42558919118. 3

42558919119. 4

Question Number : 16 Question Id : 4255894920 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

भारत में निर्मित प्रथम बोलती (टाकी) पीचर फिल्म का निर्देशन किसने किया था ?

- (1) अर्देशर ईरानी
- (2) रित्विक घटक
- (3) दादा साहब फाल्के
- (4) बिमल राय

Options :

- 42558919116. 1
- 42558919117. 2
- 42558919118. 3
- 42558919119. 4

Question Number : 17 Question Id : 4255894921 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Who directed the first film made in India ?

- (1) Satyajit Ray
- (2) Dada Saheb Phalke
- (3) Prithvi Raj Kapoor
- (4) Ardeshar Irani

Options :

- 42558919120. 1
- 42558919121. 2
- 42558919122. 3
- 42558919123. 4

Question Number : 17 Question Id : 4255894921 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

भारत में निर्मित प्रथम फिल्म का निर्देशन किसने किया था ?

- (1) सत्यजीत रे
- (2) दादा साहब फाल्के
- (3) पृथ्वी राज कपूर
- (4) अर्देशर ईरानी

Options :

- 42558919120. 1
- 42558919121. 2
- 42558919122. 3
- 42558919123. 4

Question Number : 18 Question Id : 4255894922 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the correct chronological order of the following television programmes released on Doordarshan in India (from earliest to latest)?

- A. Mahabharatha
- B. Chandrakanta
- C. Hum Log
- D. Ramayana
- E. Buniyad

Choose the **correct** answer from the options given below :

- (1) A, B, C, D, E
- (2) C, E, D, A, B
- (3) B, C, A, D, E
- (4) B, A, D, E, C

**Options :**

42558919124. 1

42558919125. 2

42558919126. 3

42558919127. 4

Question Number : 18 Question Id : 4255894922 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

भारत में दूरदर्शन पर निम्न टेलीविजन कार्यक्रमों की सही कालक्रम (सर्वाधिक आरंभिक से नवीनतम तक) क्या है ?

- A. महाभारत
- B. चन्द्रकांता
- C. हमलोग
- D. रामायण
- E. बुनियाद

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) A, B, C, D, E
- (2) C, E, D, A, B
- (3) B, C, A, D, E
- (4) B, A, D, E, C

**Options :**

42558919124. 1

42558919125. 2

42558919126. 3

42558919127. 4

Question Number : 19 Question Id : 4255894923 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What among the following films are directed by Satyajit Ray ?

- A. Madhumati
- B. Apur Sansar
- C. Sujata
- D. Aparajito
- E. Pather Panchali

Choose the **most appropriate** answer from the options given below :

- (1) B, D and E Only
- (2) A and C Only
- (3) A, B, C and D Only
- (4) A, B and C Only

Options :

42558919128. 1

42558919129. 2

42558919130. 3

42558919131. 4

Question Number : 19 Question Id : 4255894923 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्न में से सत्यजीत रे द्वारा निर्देशित फिल्म कौन सी हैं ?

- A. मधुमती
- B. अपूर संसार
- C. सुजाता
- D. अपराजितो
- E. पाथेर पांचाली

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) केवल B, D और E
- (2) केवल A और C
- (3) केवल A, B, C और D
- (4) केवल A, B और C

Options :

42558919128. 1

42558919129. 2

42558919130. 3

42558919131. 4

Question Number : 20 Question Id : 4255894924 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II :

List - I (Meaning)	List - II (Terms)
A. Who	I. Receiver
B. Says what	II. Communicator
C. In which channel	III. Message
D. To whom	IV. Medium

Choose the correct answer from the options given below :

- (1) A-III, B-II, C-I, D-IV
- (2) A-I, B-IV, C-III, D-II
- (3) A-II, B-III, C-IV, D-I
- (4) A-IV, B-II, C-I, D-III

Options :

42558919132. 1  
42558919133. 2  
42558919134. 3  
42558919135. 4

Question Number : 20 Question Id : 4255894924 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची - I को सूची - II से सुमेलित करे :

सूची - I ( अर्थ )	सूची - II ( पद )
A. कौन	I. प्राप्त कर्ता
B. क्या कहता है	II. संचारक
C. किस चैनल में	III. संदेश
D. किससे	IV. माध्यम

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) A-III, B-II, C-I, D-IV
- (2) A-I, B-IV, C-III, D-II
- (3) A-II, B-III, C-IV, D-I
- (4) A-IV, B-II, C-I, D-III

Options :

42558919132. 1  
42558919133. 2  
42558919134. 3  
42558919135. 4

Question Number : 21 Question Id : 4255894925 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Find the number that can replace question mark (?) in the series given below.

7, 12, 32, 122, ?, 3602, 25202

- (1) 602
- (2) 610
- (3) 702
- (4) 622

Options :

- 42558919136. 1
- 42558919137. 2
- 42558919138. 3
- 42558919139. 4

Question Number : 21 Question Id : 4255894925 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

उस संख्या का पता लगाएं जो निम्न श्रृंखला में प्रश्न चिन्ह (?) को प्रतिस्थापित कर सके।

7, 12, 32, 122, ?, 3602, 25202

- (1) 602
- (2) 610
- (3) 702
- (4) 622

Options :

- 42558919136. 1
- 42558919137. 2
- 42558919138. 3
- 42558919139. 4

Question Number : 22 Question Id : 4255894926 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a certain code language :

'NOIDA' is written as : 1, 4, 9, 15, 14

'INDIA' is written as : 1, 9, 4, 14, 9

How 'HELLO' will be written in this language ?

- (1) 15, 12, 12, 5, 8
- (2) 5, 12, 12, 15, 8
- (3) 8, 5, 12, 12, 15
- (4) 12, 5, 12, 8, 15

Options :

- 42558919140. 1
- 42558919141. 2
- 42558919142. 3
- 42558919143. 4

Question Number : 22 Question Id : 4255894926 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

कतिपय कूट भाषा में :

'NOIDA' को '1, 4, 9, 15, 14' के रूप में लिखा जाता है।

'INDIA' को '1, 9, 4, 14, 9' के रूप में लिखा जाता है।

उपर्युक्त भाषा में 'HELLO' को कैसे लिखा जाएगा ?

- (1) 15, 12, 12, 5, 8
- (2) 5, 12, 12, 15, 8
- (3) 8, 5, 12, 12, 15
- (4) 12, 5, 12, 8, 15

Options :

42558919140. 1

42558919141. 2

42558919142. 3

42558919143. 4

Question Number : 23 Question Id : 4255894927 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statement(s) is/are wrong ?

- A. A man runs at a speed of 20 km/hr and covers a distance of 400 m. The time taken by the man to cover 400 m is 8 minutes.
- B. A person covers a certain distance at x km/hr and an equal distance at y km/hr. The average speed during the whole journey is  $\frac{2xy}{x+y}$  km/hr.
- C. A Cyclist covers a distance of 750 m in  $2\frac{1}{2}$  minutes. The speed of the cyclist is 18 km/hr.
- D. A speed of x km/hr is equal to  $\frac{5x}{18}$  m/sec

Choose the **most appropriate** answer from the options given below :

- (1) A Only
- (2) A and B Only
- (3) A and C Only
- (4) B, C and D Only

Options :

42558919144. 1

42558919145. 2

42558919146. 3

42558919147. 4

Question Number : 23 Question Id : 4255894927 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्न में से कौन सा/से कथन गलत है ?

A. यदि एक व्यक्ति 20 कि.मी/घंटे की गति से दौड़ता है और 400 मीटर की दूरी तय करता है, तो 400 मी. की दूरी तय करने में उसे 8 मिनट का समय लगता है।

B. एक व्यक्ति  $x$  कि.मी/घंटे की गति से एक दूरी तय करता है और उतनी ही दूरी  $y$  कि.मी/घंटे की गति से तय करता है।

कुल यात्रा में उसकी औसत गति  $\frac{2xy}{x+y}$  किमी/घंटे है।

C. एक साइकिल चालक 750 मीटर की दूरी  $2\frac{1}{2}$  मिनट में तय करता है। उस साइकिल चालक की गति 18 किमी/घंटा है।

D.  $x$  कि.मी./घंटे की गति  $\frac{5x}{18}$  मी./सेकेंड के बराबर है।

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) केवल A
- (2) केवल A और B
- (3) केवल A और C
- (4) केवल B, C और D

Options :

42558919144. 1

42558919145. 2

42558919146. 3

42558919147. 4

Question Number : 24 Question Id : 4255894928 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

When a producer allows 36% commission on the retail price of his product, he earns a profit of 8.8%. What would be his profit if the commission is reduced by 24% ?

- (1) 36.6 %
- (2) 49.6 %
- (3) 59.6 %
- (4) 45.6 %

Options :

42558919148. 1

42558919149. 2

42558919150. 3

42558919151. 4

Question Number : 24 Question Id : 4255894928 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

जब कोई उत्पादक अपने उत्पाद के खुदरा मूल्य पर 36 प्रतिशत कमीशन देता है तो उसे 8.8% लाभ प्राप्त होता है। यदि इस कमीशन में 24 प्रतिशत की कटौती कर दी जाए तो उसे कितना लाभ प्राप्त होगा ?

- (1) 36.6%
- (2) 49.6%
- (3) 59.6%
- (4) 45.6%

Options :

42558919148. 1  
42558919149. 2  
42558919150. 3  
42558919151. 4

Question Number : 25 Question Id : 4255894929 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A sum was put at simple interest at a certain rate for 3 years, Had it been put at 1% higher rate, it would have fetched ₹5100 more. Find the sum.

- (1) ₹ 170,000
- (2) ₹ 150,000
- (3) ₹ 175,000
- (4) ₹ 200,000

Options :

42558919152. 1  
42558919153. 2  
42558919154. 3  
42558919155. 4

Question Number : 25 Question Id : 4255894929 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

एक धनराशि को किसी साधारण ब्याज दर पर 3 वर्ष के दिया जाता है। यदि इस धनराशि को 1% अधिक दर पर दिया जाता तो ₹ 5100 अधिक प्राप्त होते। इस धनराशि को ज्ञात कीजिए।

- (1) ₹ 170,000
- (2) ₹ 150,000
- (3) ₹ 175,000
- (4) ₹ 200,000

Options :

42558919152. 1  
42558919153. 2  
42558919154. 3  
42558919155. 4

Question Number : 26 Question Id : 4255894930 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements contradict each other ?

- A. All ducks are birds.
- B. Some ducks are birds.
- C. Some ducks are not birds.
- D. No ducks are birds.

Choose the **most appropriate** answer from the options given below :

- (1) A and D Only
- (2) B and C Only
- (3) B and D Only
- (4) C and D Only

Options :

- 42558919156. 1
- 42558919157. 2
- 42558919158. 3
- 42558919159. 4

Question Number : 26 Question Id : 4255894930 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन-से कथन एक दूसरे का व्याघात करते हैं ?

- A. सभी बत्तख पक्षी होते हैं।
- B. कुछ बत्तख पक्षी होते हैं।
- C. सभी बत्तख पक्षी नहीं होते हैं।
- D. कोई बत्तख पक्षी नहीं होता।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) केवल A और D
- (2) केवल B और C
- (3) केवल B और D
- (4) केवल C और D

Options :

- 42558919156. 1
- 42558919157. 2
- 42558919158. 3
- 42558919159. 4

Question Number : 27 Question Id : 4255894931 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If the statement "No birds are animals" is given as false, which of the following statements can be inferred to be true ?

- A. Some animals are not birds.
- B. Some birds are not animals.
- C. Some animals are birds.
- D. Some birds are animals.

Choose the **most appropriate** answer from the options given below :

- (1) A and B Only
- (2) C and D Only
- (3) B Only
- (4) A, B, C and D

Options :

- 42558919160. 1
- 42558919161. 2
- 42558919162. 3
- 42558919163. 4

Question Number : 27 Question Id : 4255894931 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

यदि कथन "कोई पक्षी जानवर नहीं होता है" को असत्य माना जाता है तो निम्नलिखित में से किन कथनों के सत्य होने का अनुमान लगाया जा सकता है ?

- A. कुछ जानवर पक्षी नहीं होते हैं।
- B. कुछ पक्षी जानवर नहीं होते हैं।
- C. कुछ जानवर पक्षी होते हैं।
- D. कुछ पक्षी जानवर होते हैं।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) केवल A और B
- (2) केवल C और D
- (3) केवल B
- (4) A, B, C और D

Options :

- 42558919160. 1
- 42558919161. 2
- 42558919162. 3
- 42558919163. 4

Question Number : 28 Question Id : 4255894932 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

"This is the richest fraternity on the campus; therefore Mr. X who is a member of this fraternity must be one of the richest young man on the campus." Which fallacy is involved in this argument ?

- (1) Fallacy of division
- (2) Fallacy of irrelevant conclusion
- (3) Red Herring
- (4) Slippery slope

Options :

- 42558919164. 1
- 42558919165. 2
- 42558919166. 3
- 42558919167. 4

Question Number : 28 Question Id : 4255894932 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

“यह परिसर का सबसे समृद्ध बंधुत्व समूह है; इसलिए श्री एक्स (X) जो इस बंधुत्व समूह के सदस्य हैं, को परिसर के समृद्धतम युवाओं में से एक होना चाहिए।” इस युक्ति में कौन-सा तर्कदोष विद्यमान है ?

- (1) विग्रह-दोष
- (2) प्रतिज्ञांतर सिद्धि दोष
- (3) भ्रामक संकेत
- (4) फिसलनयुक्त ढलान

Options :

42558919164. 1
42558919165. 2
42558919166. 3
42558919167. 4

Question Number : 29 Question Id : 4255894933 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following in order of increasing extension.

- A. Social Science
- B. Political Science
- C. Sciences
- D. Politics of International Relations

Choose the **most appropriate** answer from the options given below :

- (1) C, A, B, D
- (2) A, C, B, D
- (3) B, D, A, C
- (4) D, B, A, C

Options :

42558919168. 1
42558919169. 2
42558919170. 3
42558919171. 4

Question Number : 29 Question Id : 4255894933 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित को बढ़ते वस्त्वर्थ के क्रम में व्यवस्थित कीजिए :

- A. समाज विज्ञान
- B. राजनीतिविज्ञान
- C. विज्ञान
- D. अन्तराष्ट्रीय संबंधों की राजनीति

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) C, A, B, D
- (2) A, C, B, D
- (3) B, D, A, C
- (4) D, B, A, C

Options :

42558919168. 1
42558919169. 2
42558919170. 3
42558919171. 4

Question Number : 30 Question Id : 4255894934 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

According to the classical Indian school of logic, which of the following instruments of knowledge is defined as the knowledge of the relation between a word and its denotation and is produced by the knowledge of resemblance or similarity ?

- (1) Pratyakṣa (perception)
- (2) Anumāna (inference)
- (3) Upamāna (comparison)
- (4) Śabda (verbal testimony)

Options :

- 42558919172. 1
- 42558919173. 2
- 42558919174. 3
- 42558919175. 4

Question Number : 30 Question Id : 4255894934 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

प्राचीन भारतीय तर्कशास्त्र मत के अनुसार निम्नलिखित में से ज्ञान के किस साधन को शब्द और इसके वस्तुत्वर्थ के बीच संबंध के ज्ञान के रूप में परिभाषित किया जाता है और सादृश्यता के ज्ञान के रूप में उत्पन्न किया जाता है ?

- (1) प्रत्यक्ष
- (2) अनुमान
- (3) उपमान
- (4) शब्द

Options :

- 42558919172. 1
- 42558919173. 2
- 42558919174. 3
- 42558919175. 4

Question Number : 31 Question Id : 4255894935 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is an example of IEEE 802.3 ?

- (1) LAN
- (2) MAN
- (3) WAN
- (4) PAN

Options :

- 42558919176. 1
- 42558919177. 2
- 42558919178. 3
- 42558919179. 4

Question Number : 31 Question Id : 4255894935 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से आई.ई.ई.ई. 802.3 (IEEE 802.3) किसका एक उदाहरण है ?

- (1) एल.ए.एन. (LAN)
- (2) एम.ए.एन. (MAN)
- (3) डब्ल्यू.ए.एन. (WAN)
- (4) पी.ए.एन. (PAN)

Options :

- 42558919176. 1
- 42558919177. 2
- 42558919178. 3
- 42558919179. 4

Question Number : 32 Question Id : 4255894936 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following technologies is used in second generation of computer ?

- (1) Vacuum tubes
- (2) Transistors
- (3) Integrated Circuits
- (4) VLSI

Options :

- 42558919180. 1
- 42558919181. 2
- 42558919182. 3
- 42558919183. 4

Question Number : 32 Question Id : 4255894936 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसी प्रौद्योगिकी कम्प्यूटर की द्वितीय पीढ़ी में प्रयुक्त की जाती है ?

- (1) वैक्यूम ट्यूब्स
- (2) ट्रांजिस्टर्स
- (3) समेकित सर्किट्स
- (4) वी.एल.एस.आई. (VLSI)

Options :

- 42558919180. 1
- 42558919181. 2
- 42558919182. 3
- 42558919183. 4

Question Number : 33 Question Id : 4255894937 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is correct sequence of increasing access time of storage/memory devices ?

- A. Magnetic tape
- B. RAM
- C. Cache memory
- D. Hard disk
- E. Registers

Choose the **correct** answer from the options given below :

- (1) A, B, C, D, E
- (2) B, E, C, A, D
- (3) E, C, B, D, A
- (4) C, E, B, A, D

Options :

- 42558919184. 1
- 42558919185. 2
- 42558919186. 3
- 42558919187. 4

Question Number : 33 Question Id : 4255894937 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसा स्टोरेज/मेमोरी उपकरणों के बढ़ते एक्सेस टाइम (पहुंच समय) का सही क्रम है ?

- A. मैग्नेटिक टेप
- B. रैम (RAM)
- C. केशे मेमोरी
- D. हार्ड डिस्क
- E. रजिस्टर्स

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) A, B, C, D, E
- (2) B, E, C, A, D
- (3) E, C, B, D, A
- (4) C, E, B, A, D

Options :

- 42558919184. 1
- 42558919185. 2
- 42558919186. 3
- 42558919187. 4

Question Number : 34 Question Id : 4255894938 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

With reference to cyber attacks, which of the following statements are correct ?

- A. Malware is a malicious software designed to cause damage to a single computer, server or computer network.
- B. Types of malware include computer viruses, worms, trojan horses, ransomware and spyware.
- C. Pegasus is a malicious software classified as Ransomware.
- D. India is not a signatory to the Budapest convention on cybercrime.

Choose the **most appropriate** answer from the options given below :

- (1) A, B and C Only
- (2) B, C and D Only
- (3) A, B, C and D
- (4) A, B and D Only

Options :

- 42558919188. 1
- 42558919189. 2
- 42558919190. 3
- 42558919191. 4

Question Number : 34 Question Id : 4255894938 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसे कथन साइबर हमलों के संदर्भ में सही हैं ?

- A. मालवेयर एक विद्वेषपूर्ण सॉफ्टवेयर है, जिसे एक एकल कम्प्यूटर, सर्वर या कम्प्यूटर नेटवर्क को क्षती पहुंचाने के लिए अभिकल्पित किया गया है।
- B. मालवेयर के प्रकारों में कम्प्यूटर वायरस, वॉर्म्स, ट्रोजन होर्सेज, रेन्समवेयर और स्पाईवेयर सम्मिलित हैं।
- C. पेगासस रेन्समवेयर के रूप में वर्गीकृत एक विद्वेषपूर्ण सॉफ्टवेयर है।
- D. भारत साइबर-अपराध पर बुदोपेस्ट अभिसमय पर एक हस्ताक्षरकर्ता देश नहीं है।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) केवल A, B और C
- (2) केवल B, C और D
- (3) A, B, C और D
- (4) केवल A, B और D

Options :

- 42558919188. 1
- 42558919189. 2
- 42558919190. 3
- 42558919191. 4

Question Number : 35 Question Id : 4255894939 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II :

List - I

(Operating system)

- A. UNIX
- B. MS-DOS
- C. Android OS
- D. Utility programs

List - II

(Task)

- I. Assist users in system maintenance task
- II. Mobile device
- III. Single user operating system
- IV. Multi user operating system

Choose the **correct** answer from the options given below :

- (1) A-III, B-IV, C-I, D-II
- (2) A-I, B-II, C-IV, D-III
- (3) A-IV, B-III, C-II, D-I
- (4) A-III, B-I, C-II, D-IV

Options :

42558919192. 1

42558919193. 2

42558919194. 3

42558919195. 4

Question Number : 35 Question Id : 4255894939 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची - I को सूची - II से सुमेलित करे :

सूची - I

(ऑपरेटिंग सिस्टम)

- A. यू.एन.आई.एक्स. (UNIX)
- B. एम.एस.डॉस (MS-DOS)
- C. एन्ड्रोइड ओ.एस. (Android OS)
- D. यूटिलिटी प्रोग्राम्स (उपयोगिता कार्यक्रम)

सूची - II

(कार्य)

- I. प्रणाली के रखरखाव कार्य में उपयोगकर्ता की सहायता करता है।
- II. मोबाइल उपकरण
- III. सिंगल यूजर ऑपरेटिंग सिस्टम
- IV. मल्टी-यूजर ऑपरेटिंग सिस्टम

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) A-III, B-IV, C-I, D-II
- (2) A-I, B-II, C-IV, D-III
- (3) A-IV, B-III, C-II, D-I
- (4) A-III, B-I, C-II, D-IV

Options :

42558919192. 1

42558919193. 2

42558919194. 3

42558919195. 4

Question Number : 36 Question Id : 4255894940 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are true about coliform bacteria ?

- A. They are used to test water contamination.
- B. Coliform bacteria are harmless and cause no disease.
- C. They are found naturally in human intestinal tract.
- D. Their presence in water is an indication of fecal contamination.

Choose the **most appropriate** answer from the options given below :

- (1) A and D Only
- (2) B and C Only
- (3) A, C and D Only
- (4) A, B, C and D

Options :

42558919196. 1

42558919197. 2

42558919198. 3

42558919199. 4

Question Number : 36 Question Id : 4255894940 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कोलिफॉर्म जीवाणु के बारे में कौनसे कथन सही हैं ?

- A. इन्हें जल-संदूषण के परिक्षण में प्रयुक्त किया जाता है।
- B. कोलिफॉर्म जीवाणु अहानिकर हैं और किसी रोग को उत्पन्न नहीं करते हैं।
- C. इनगहें मानव आंत्र नाल में स्वाभाविक रूप से पाया जाता है।
- D. जल में इनकी विद्यमानता विष्टा संदूषण का एक संकेतक है।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) केवल A और D
- (2) केवल B और C
- (3) केवल A, C और D
- (4) A, B, C और D

Options :

42558919196. 1

42558919197. 2

42558919198. 3

42558919199. 4

Question Number : 37 Question Id : 4255894941 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Why is the concentration of  $\text{CO}_2$  is more in the Northern Hemisphere than the Southern Hemisphere ?

- A. Land mass is more in the Northern Hemisphere.
- B. Ocean body is more in the Southern Hemisphere.
- C. Fossil fuel is burnt more in the Northern Hemisphere.
- D. Northern Hemisphere is colder than the Southern Hemisphere.

Choose the **most appropriate** answer from the options given below :

- (1) A and C Only
- (2) B, C and D Only
- (3) A, B and C Only
- (4) B and D Only

Options :

- 42558919200. 1
- 42558919201. 2
- 42558919202. 3
- 42558919203. 4

Question Number : 37 Question Id : 4255894941 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

दक्षिण गोलार्ध की तुलना में उत्तरी गोलार्ध में  $\text{CO}_2$  का संकेन्द्रण क्यों अधिक है ?

- A. उत्तरी गोलार्ध में भूमि-पिंड अधिक है।
- B. दक्षिण गोलार्ध में महासागर अधिक हैं।
- C. उत्तरी गोलार्ध में जीवाश्म ईंधन अधिक जलता है।
- D. दक्षिण गोलार्ध की तुलना में उत्तरी गोलार्ध अधिक ठण्डा है।

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) केवल A और C
- (2) केवल B, C और D
- (3) केवल A, B और C
- (4) केवल B और D

Options :

- 42558919200. 1
- 42558919201. 2
- 42558919202. 3
- 42558919203. 4

Question Number : 38 Question Id : 4255894942 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Increasing the ratio of fissile Uranium (U-235) in natural uranium is known as :

- (1) Enhancement
- (2) Concentration
- (3) Accumulation
- (4) Enrichment

Options :

- 42558919204. 1
- 42558919205. 2
- 42558919206. 3
- 42558919207. 4

Question Number : 38 Question Id : 4255894942 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

प्राकृतिक यूरेनियम में विखंडनीय यूरेनियम (यू-235) के अनुपात का वर्धमानीकरण निम्न में से किस रूप में जाना जाता है?

- (1) संवृद्धि
- (2) संकेन्द्रण
- (3) संचयन
- (4) स्मृद्धि

Options :

42558919204. 1  
42558919205. 2  
42558919206. 3  
42558919207. 4

Question Number : 39 Question Id : 4255894943 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the correct sequence, from initial to final, of surface waste water treatment ?

- A. Disinfection
- B. Sedimentation
- C. Filtration
- D. Screening

Choose the correct answer from the options given below :

- (1) A, B, C, D
- (2) A, B, D, C
- (3) D, B, A, C
- (4) D, B, C, A

Options :

42558919208. 1  
42558919209. 2  
42558919210. 3  
42558919211. 4

Question Number : 39 Question Id : 4255894943 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

भूतल अपशिष्ट जल उपचार का आरंभिक से अंतिम, सही अनुक्रम क्या है?

- A. विसंक्रामण
- B. अवसादन
- C. निस्पंदन
- D. स्क्रीनिंग

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) A, B, C, D
- (2) A, B, D, C
- (3) D, B, A, C
- (4) D, B, C, A

Options :

42558919208. 1  
42558919209. 2  
42558919210. 3  
42558919211. 4

Question Number : 40 Question Id : 4255894944 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are differences between Modified Mercalli Scale (MMS) and Richter Scale (RS) ?

- A. RS measures the energy released while MMS measures both energy and devastation
- B. RS uses linear scale while MMS uses logarithmic scale
- C. Value of RS is constant in an earthquake while MMS varies depending upon distance
- D. Levels in RS is more than MMS

Choose the **most appropriate** answer from the options given below :

- (1) A and B Only
- (2) B and C Only
- (3) C and D Only
- (4) A and C Only

Options :

- 42558919212. 1
- 42558919213. 2
- 42558919214. 3
- 42558919215. 4

Question Number : 40 Question Id : 4255894944 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

संशोधित मरकेली स्केल ( एम एम एस ) और रिक्टर स्केल ( आर एस ) के बीच क्या-क्या अंतर हैं ?

- A. आर एस मोचित ऊर्जा को मापता है जबकि एम एम एस ऊर्जा और उच्छेदन दोनों को मापता है।
- B. आर एस रेखीय स्केल का प्रयोग करता है जबकि एम एम एस लागिरदमिक स्केल का प्रयोग करता है।
- C. भूकंप में आर एस का मान स्थिर होता है जबकि एम एम एस में दूरी के अनुसार भिन्नता होती है।
- D. एम एम एस की अपेक्षा आर एस में स्तर अधिक होते हैं।

नीचे दिए गए विकल्पों में से सही उत्तर चुनें :

- (1) केवल A और B
- (2) केवल B और C
- (3) केवल C और D
- (4) केवल A और C

Options :

- 42558919212. 1
- 42558919213. 2
- 42558919214. 3
- 42558919215. 4

Question Number : 41 Question Id : 4255894945 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In an ancient period, the Diksha Guru performed his duty as :

- (1) Guru of secular subjects
- (2) Spiritual guide for both girls and boys
- (3) Spiritual guide of boys
- (4) Tutor

Options :

- 42558919216. 1
- 42558919217. 2
- 42558919218. 3
- 42558919219. 4

Question Number : 41 Question Id : 4255894945 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

प्राचीन काल में दीक्षा गुरु \_\_\_\_\_ के रूप में अपने कर्तव्य का निर्वहन करता था।

- (1) वह धर्म निरपेक्ष विषयों का गुरु था
- (2) लड़कियों और लड़कों दोनों का आध्यात्मिक मार्गदर्शक था
- (3) लड़कों का आध्यात्मिक मार्गदर्शक था
- (4) अनुशिक्षक (ट्यूटर) के रूप में अपने कर्तव्य का निर्वहन करता था

Options :

42558919216. 1

42558919217. 2

42558919218. 3

42558919219. 4

Question Number : 42 Question Id : 4255894946 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which international organization co-ordinates the education for all programme at the global level ?

- (1) UNDP
- (2) UNESCO
- (3) IMF
- (4) UNEP

Options :

42558919220. 1

42558919221. 2

42558919222. 3

42558919223. 4

Question Number : 42 Question Id : 4255894946 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

कौन-सा अन्तर्राष्ट्रीय संगठन, वैश्विक स्तर पर सबके लिए शिक्षा कार्यक्रम का समन्वय करता है ?

- (1) यू एन डी पी
- (2) यूनेस्को
- (3) आई एम एफ
- (4) यू एन ई पी

Options :

42558919220. 1

42558919221. 2

42558919222. 3

42558919223. 4

Question Number : 43 Question Id : 4255894947 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following events in the **correct** chronological sequence.

- A. Establishment of the University of Madras
- B. Introduction of the Indian Universities Act
- C. Establishment of UGC
- D. First National Education Policy of India

Choose the **correct** answer from the options given below :

- (1) A, B, C, D
- (2) A, D, C, B
- (3) B, C, A, D
- (4) C, B, A, D

Options :

- 42558919224. 1
- 42558919225. 2
- 42558919226. 3
- 42558919227. 4

Question Number : 43 Question Id : 4255894947 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित घटनाओं को सही कालक्रम में व्यवस्थित कीजिए।

- A. मद्रास विश्वविद्यालय की स्थापना
- B. भारतीय विश्वविद्यालय अधिनियम का पुरःस्थापन
- C. विश्वविद्यालय अनुदान आयोग (यू जी सी) की स्थापना
- D. भारत की पहली राष्ट्रीय शिक्षा नीति

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) A, B, C, D
- (2) A, D, C, B
- (3) B, C, A, D
- (4) C, B, A, D

Options :

- 42558919224. 1
- 42558919225. 2
- 42558919226. 3
- 42558919227. 4

Question Number : 44 Question Id : 4255894948 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

As per National Education Policy 1986, the major functions of the National Apex Body are :

- A. To allocate resources
- B. To evaluate the examination system
- C. To advise government on policy
- D. To encourage inter-disciplinarily and promotion of interfaces among different areas.
- E. To conduct research in higher education

Choose the **correct** answer from the options given below :

- (1) A, C, E Only
- (2) B, D and E Only
- (3) C, D and E Only
- (4) A, C and D Only

Options :

42558919228. 1

42558919229. 2

42558919230. 3

42558919231. 4

Question Number : 44 Question Id : 4255894948 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

राष्ट्रीय शिक्षा नीति 1986 के अनुसार राष्ट्रीय शीर्ष निकाय (नेशनल एपेक्स बाडी) के प्रमुख कार्य हैं :

- A. संसाधन आबंटित करना
- B. परीक्षा प्रणाली का मूल्यांकन करना
- C. नीति के संबंध में सरकार को सलाह देना
- D. अन्तर-विषयकता को बढ़ावा देना और भिन्न-भिन्न क्षेत्रों के बीच अंतरापृष्ठों को बढ़ावा देना
- E. उच्च शिक्षा में शोध करना

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) केवल A, C, E
- (2) केवल B, D और E
- (3) केवल C, D और E
- (4) केवल A, C और D

Options :

42558919228. 1

42558919229. 2

42558919230. 3

42558919231. 4

Question Number : 45 Question Id : 4255894949 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II :

List - I (Name of the institutions)	List - II (Function)
A. NIEPA	I. Ensuring Quality
B. RUSA	II. Providing loans to higher education institutions
C. QAA	III. Infrastructure development for upgrading the existing colleges into model colleges
D. HEFA	IV. Promoting Research in planning and management

Choose the **correct** answer from the options given below :

- (1) A-I, B-III, C-II, D-IV
- (2) A-I, B-II, C-III, D-IV
- (3) A-I, B-IV, C-III, D-II
- (4) A-IV, B-III, C-I, D-II

Options :

42558919232. 1

42558919233. 2

42558919234. 3

42558919235. 4

Question Number : 45 Question Id : 4255894949 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची - I को सूची - II से सुमेलित करे :

सूची - I संस्था का नाम	सूची - II कार्य
A. एन आई ई पी ए (नीपा)	I. गुणवत्ता सुनिश्चित करना
B. आर यू एस ए	II. उच्च शिक्षा की संस्थाओं के ऋण प्रदान करना
C. क्यू ए ए	III. मौजूदा कालेजों का स्तर बढ़ाकर आदर्श कालेज (मॉडल कालेज) बनाना
D. एच ई एफ ए	IV. आयोजना और प्रबंधन में शोध को प्रोत्साहित करना

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें :

- (1) A-I, B-III, C-II, D-IV
- (2) A-I, B-II, C-III, D-IV
- (3) A-I, B-IV, C-III, D-II
- (4) A-IV, B-III, C-I, D-II

Options :

42558919232. 1

42558919233. 2

42558919234. 3

42558919235. 4

Sub-Section Number :

3

Sub-Section Id :

425589201

Question Shuffling Allowed :

No

Question Id : 4255894950 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
Question Pattern Type : NonMatrix  
Question Numbers : (46 to 50)

Read the following passage carefully and answer the questions .

Forced by circumstances and in search of success and status, educated young men and women settle far away from their parents. Some go abroad. The very education that the parents manage to give to their children turns against them in the end. Their children go away in search of green pastures leaving them alone. International community as well as our government is aware of their problems. The UNO proclaimed the year 1999 as 'International Year for the Aged'. In our own country too the year 2000 was proclaimed 'The Year for the Aged'.

Article 41 of our constitution clearly makes it incumbent on the state to look after the aged. There is a social welfare ministry responsible for the welfare of the aged. Laws are made from time-to-time to protect the rights of senior citizens. For example under law parents cannot be evicted from a house without due process of law under section 105 of the Criminal Procedure Code. A magistrate can order a person to maintain his/her old parents under the Maintenance of Parents Act. The Hindu Adoption and Maintenance act says that the aged parents can demand for maintenance from their children. The Domestic Violence Act also provides parents with the rights to seek relief from any kind of abuse.

Sub questions

Question Number : 46 Question Id : 4255894951 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

According to passage, who usually leaves their parents in lurch ?

- (1) Disobedient wards
- (2) Frustrated youth
- (3) Career seeker children settled in distant places
- (4) The ones who have job insecurity

Options :

42558919236. 1  
42558919237. 2  
42558919238. 3  
42558919239. 4

Question Number : 47 Question Id : 4255894952 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

The year 1999 was proclaimed as :

- (1) National year for the aged
- (2) Universal year for the aged
- (3) International year for the aged
- (4) SAARC year for the aged

Options :

42558919240. 1  
42558919241. 2  
42558919242. 3  
42558919243. 4

Question Number : 48 Question Id : 4255894953 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

Under section 105 of the criminal procedure code, parents cannot be evicted from a house :

- (1) Without due process of law
- (2) In any situation
- (3) Without submitting their will
- (4) Unless their property is transferred to their legal heir

Options :

42558919244. 1  
42558919245. 2  
42558919246. 3

42558919247.4

**Question Number : 49 Question Id : 4255894954 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Who is empowered to give order to the concerned for the maintenance of their parents ?

- (1) A retired judge
- (2) The judge of the High-Court
- (3) Local Sarpanch
- (4) A magistrate

**Options :**

42558919248.1

42558919249.2

42558919250.3

42558919251.4

**Question Number : 50 Question Id : 4255894955 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Which of the following Act/Section does give parents rights to seek relief from any kind of abuse ?

- (1) Hindu Adoption and maintenance Act
- (2) Section 105 of CPC
- (3) The Domestic Violence Act
- (4) Section 98 of CPC

**Options :**

42558919252.1

42558919253.2

42558919254.3

42558919255.4

Question Id : 4255894950 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
Question Pattern Type : NonMatrix  
Question Numbers : (46 to 50)

निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़ें और प्रश्न संख्या तक के उत्तर दीजिए।

परिस्थियों से विवश होकर और सफलता एवं पद-प्रतिष्ठा की खोज में शिक्षित पुरुष और महिलाएं अपने माता-पिता से बहुत दूर बस जाते हैं। कुछ व्यक्ति विदेश चले जाते हैं। माता-पिता अपने बच्चों को जिस शिक्षा को दिला पाते हैं, वही अंत में उनके विरुद्ध मोड़ ले लेती है। उनके बच्चे सुनहरे अवसरों की खोज में उन्हें अकेला छोड़ देते हैं। अंतर्राष्ट्रीय समुदाय के साथ-साथ हमारी सरकार उनकी समस्याओं से परिचित है। संयुक्त राष्ट्र संघ ने वर्ष 1999 को 'अंतर्राष्ट्रीय वृद्धजन वर्ष' घोषित किया हमारे देश में भी वर्ष 2000 को 'वृद्धजन वर्ष' घोषित किया गया था। हमारे संविधान के अनुच्छेद-41 में वृद्धजनों के हितों की देखभाल के लिए राज्य को स्पष्टतः आश्रयी बनाया गया है। समाज कल्याण मंत्रालय वृद्धजनों के कल्याण के लिए उत्तरदायी है। वरिष्ठ नागरिकों के अधिकारों को संरक्षण देने के लिए समय-समय पद कानून बनाए जाते हैं। उदाहरणार्थ, कानून के अंतर्गत आपराधिक दंड प्रक्रिया (सी.पी.सी) की धारा-105 के अंतर्गत कानून की सम्यक प्रक्रिया के बिना माता-पिता को घर से बेदखल नहीं किया जा सकता। माता-पिता के भरण-पोषण संबंधी अधिनियम के अंतर्गत मजिस्ट्रेट व्यक्ति को उसके वृद्ध माता-पिता के भरण-पोषण का आदेश दे सकता है। हिन्दू दत्तक और भरण-पोषण अधिनियम में कहा गया है कि वृद्ध माता-पिता अपने बच्चों से भरण-पोषण की मांग कर सकते हैं। घरेलू हिंसा अधिनियम में किसी भी तरह के दर्विह्वार से राहत पाने के लिए माता-पिता को अधिकार देने की व्यवस्था की गई है।

Sub questions

Question Number : 46 Question Id : 4255894951 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

उपर्युक्त गद्यांश के अनुसार कौन कठिन समय में अपने माता-पिता को छोड़ देते हैं ?

- (1) अवज्ञाकारी बच्चे
- (2) निराश युवा
- (3) दूरवर्ती स्थानों पर बसे कैरियर चाहने वाले बच्चे
- (4) वे, जिनकी नौकरी असुरक्षित है।

Options :

42558919236. 1
42558919237. 2
42558919238. 3
42558919239. 4

Question Number : 47 Question Id : 4255894952 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

वर्ष 1999 को किस रूप में घोषित किया जाता था ?

- (1) राष्ट्रीय वृद्धजन वर्ष
- (2) सार्वभौमिक वृद्धजन वर्ष
- (3) अंतर्राष्ट्रीय वृद्धजन वर्ष
- (4) सार्क (SAARC) वृद्धजन वर्ष

Options :

42558919240. 1
42558919241. 2
42558919242. 3
42558919243. 4

Question Number : 48 Question Id : 4255894953 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

आपराधिक दंड प्रक्रिया की धारा-105 के अंतर्गत माता-पिता को घर से बेदखल नहीं किया जा सकता :

- (1) कानून की सम्यक प्रक्रिया के बिना
- (2) किसी भी स्थिति में
- (3) उनकी वसीयत प्रस्तुत किए बिना
- (4) जब तक उनकी सम्पत्ति उनके कानूनी वारिस को अंतरित नहीं कर दी जाती

**Options :**

- 42558919244. 1
- 42558919245. 2
- 42558919246. 3
- 42558919247. 4

**Question Number : 49 Question Id : 4255894954 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

निम्नलिखित में से कौन संबंधित व्यक्ति को अपने माता-पिता के भरण-पोषण का आदेश देने के लिए शक्तिसम्पन्न है?

- (1) सेवानिवृत्त न्यायाधीश
- (2) उच्च न्यायालय का न्यायाधीश
- (3) स्थानीय सरपंच
- (4) मजिस्ट्रेट

**Options :**

- 42558919248. 1
- 42558919249. 2
- 42558919250. 3
- 42558919251. 4

**Question Number : 50 Question Id : 4255894955 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

निम्नलिखित में से कौनसा/कौनसी अधिनियम/धारा किसी प्रकार के दुर्व्यवहार से राहत पाने के लिए माता-पिता को अधिकार प्रदान करता/करती है?

- (1) हिन्दू दत्तक और भरण-पोषण अधिनियम
- (2) सी.पी.सी की धारा-105
- (3) घरेलू हिंसा अधिनियम
- (4) सी.पी.सी की धारा-98

**Options :**

- 42558919252. 1
- 42558919253. 2
- 42558919254. 3
- 42558919255. 4

## Computer Science and Applications

<b>Section Id :</b>	42558972
<b>Section Number :</b>	2
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	92
<b>Number of Questions to be attempted :</b>	92
<b>Section Marks :</b>	200
<b>Maximum Instruction Time :</b>	0
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	425589202
<b>Question Shuffling Allowed :</b>	Yes

Question Number : 51 Question Id : 4255894956 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a group of 120 people: 65 eat Rice, 45 eat bread, 42 eat curd, 20 eat both Rice and bread, 25 eat both Rice and curd, 15 eat both bread and curd, and 8 eat all three items. Which of the following is the number of people who eat at least one of the three items:

- (1) 56
- (2) 100
- (3) 92
- (4) 65

Options :

42558919256. 1  
42558919257. 2  
42558919258. 3  
42558919259. 4

Question Number : 51 Question Id : 4255894956 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a group of 120 people: 65 eat Rice, 45 eat bread, 42 eat curd, 20 eat both Rice and bread, 25 eat both Rice and curd, 15 eat both bread and curd, and 8 eat all three items. Which of the following is the number of people who eat at least one of the three items:

- (1) 56
- (2) 100
- (3) 92
- (4) 65

Options :

42558919256. 1  
42558919257. 2  
42558919258. 3  
42558919259. 4

Question Number : 52 Question Id : 4255894957 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a pack of 42 cards, 3 cards are chosen one after the other. Find the number of ways this can be done without replacement:

- (1) 1722
- (2) 1752
- (3) 68880
- (4) 6880

Options :

42558919260. 1  
42558919261. 2  
42558919262. 3  
42558919263. 4

Question Number : 52 Question Id : 4255894957 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a pack of 42 cards, 3 cards are chosen one after the other. Find the number of ways this can be done without replacement:

- (1) 1722
- (2) 1752
- (3) 68880
- (4) 6880

Options :

- 42558919260. 1
- 42558919261. 2
- 42558919262. 3
- 42558919263. 4

Question Number : 53 Question Id : 4255894958 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A positive integer selected at random from the set of positive integers not exceeding 200. Which of the followings is the probability that the selected number is divisible by either 2 or 5?

- (1)  $\frac{2}{5}$
- (2)  $\frac{3}{5}$
- (3)  $\frac{4}{5}$
- (4)  $\frac{1}{5}$

Options :

- 42558919264. 1
- 42558919265. 2
- 42558919266. 3
- 42558919267. 4

Question Number : 53 Question Id : 4255894958 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A positive integer selected at random from the set of positive integers not exceeding 200. Which of the followings is the probability that the selected number is divisible by either 2 or 5?

- (1)  $\frac{2}{5}$
- (2)  $\frac{3}{5}$
- (3)  $\frac{4}{5}$
- (4)  $\frac{1}{5}$

Options :

- 42558919264. 1
- 42558919265. 2
- 42558919266. 3
- 42558919267. 4

Question Number : 54 Question Id : 4255894959 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the Boolean expression  $A(x, y, z) = x(y'z)'$ . Which of the following is complete sum-of-products form of the given Boolean expression.

- (1)  $xyz + x'y'z' + x'y'z'$
- (2)  $xyz' + x'y'z' + x'y'z'$
- (3)  $xyz' + xy'z + x'y'z'$
- (4)  $xyz + xy'z' + xy'z'$

Options :

42558919268. 1
42558919269. 2
42558919270. 3
42558919271. 4

Question Number : 54 Question Id : 4255894959 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the Boolean expression  $A(x, y, z) = x(y'z)'$ . Which of the following is complete sum-of-products form of the given Boolean expression.

- (1)  $xyz + x'y'z' + x'y'z'$
- (2)  $xyz' + x'y'z' + x'y'z'$
- (3)  $xyz' + xy'z + x'y'z'$
- (4)  $xyz + xy'z' + xy'z'$

Options :

42558919268. 1
42558919269. 2
42558919270. 3
42558919271. 4

Question Number : 55 Question Id : 4255894960 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Choose the correct statement for a group G:

- (1) If for all  $x, y \in G$ ,  $(xy)^2 = x^2y^2$  then G is Commutative.
- (2) If for all  $x \in G$ ,  $x^3 = 1$ , then G is Commutative. 1 is the identity element of G.
- (3) If for all  $x \in G$ ,  $x^5 = 1$ , then G is Commutative. 1 is the identity element of G.
- (4) If G is Commutative, the sub-group of G need not be Commutative.

Options :

42558919272. 1
42558919273. 2
42558919274. 3
42558919275. 4

Question Number : 55 Question Id : 4255894960 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Choose the correct statement for a group G:

- (1) If for all  $x, y \in G$ ,  $(xy)^2 = x^2y^2$  then G is Commutative.
- (2) If for all  $x \in G$ ,  $x^3 = 1$ , then G is Commutative. 1 is the identity element of G.
- (3) If for all  $x \in G$ ,  $x^5 = 1$ , then G is Commutative. 1 is the identity element of G.
- (4) If G is Commutative, the sub-group of G need not be Commutative.

Options :

- 42558919272. 1
- 42558919273. 2
- 42558919274. 3
- 42558919275. 4

Question Number : 56 Question Id : 4255894961 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Binary equivalent to  $(AOF)_{16}$  is :

1. 111000111
2. 101001111
3. 101000001111
4. 111100001010

Options :

- 42558919276. 1
- 42558919277. 2
- 42558919278. 3
- 42558919279. 4

Question Number : 56 Question Id : 4255894961 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Binary equivalent to  $(AOF)_{16}$  is :

1. 111000111
2. 101001111
3. 101000001111
4. 111100001010

Options :

- 42558919276. 1
- 42558919277. 2
- 42558919278. 3
- 42558919279. 4

Question Number : 57 Question Id : 4255894962 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The write operation in I/O operation does the following-

1. Transfer data from I/O device to memory
2. Transfer data from memory to I/O device
3. Transfer data from CPU register to memory
4. Transfer data from CPU register to I/O device

Options :

- 42558919280. 1
- 42558919281. 2
- 42558919282. 3
- 42558919283. 4

Question Number : 57 Question Id : 4255894962 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The write operation in I/O operation does the following-

1. Transfer data from I/O device to memory
2. Transfer data from memory to I/O device
3. Transfer data from CPU register to memory
4. Transfer data from CPU register to I/O device

Options :

- 42558919280. 1
- 42558919281. 2
- 42558919282. 3
- 42558919283. 4

Question Number : 58 Question Id : 4255894963 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The transformation of data from main memory to cache memory is referred as:

1. Data exchange
2. Data transformation
3. Mapping
4. Matching

Options :

- 42558919284. 1
- 42558919285. 2
- 42558919286. 3
- 42558919287. 4

Question Number : 58 Question Id : 4255894963 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The transformation of data from main memory to cache memory is referred as:

1. Data exchange
2. Data transformation
3. Mapping
4. Matching

Options :

- 42558919284. 1
- 42558919285. 2
- 42558919286. 3
- 42558919287. 4

Question Number : 59 Question Id : 4255894964 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Gray code equivalent to decimal number 8 is:

1. 1000
2. 1100
3. 1010
4. 1110

Options :

- 42558919288. 1
- 42558919289. 2
- 42558919290. 3
- 42558919291. 4

Question Number : 59 Question Id : 4255894964 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Gray code equivalent to decimal number 8 is:

1. 1000
2. 1100
3. 1010
4. 1110

Options :

- 42558919288. 1
- 42558919289. 2
- 42558919290. 3
- 42558919291. 4

Question Number : 60 Question Id : 4255894965 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following piece of C programming code:

```
int x=128, y=110;

do
{
    if( x > y)
        x = x - y;
    else
        y = y - x;
} while(x != y)

printf("%d",x);
```

Which one will be the output?

- (1) 18
- (2) 2
- (3) 92
- (4) 74

Options :

- 42558919292. 1
- 42558919293. 2
- 42558919294. 3
- 42558919295. 4

Question Number : 60 Question Id : 4255894965 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following piece of C programming code:

```
int x=128, y=110;

do
{
    if( x > y)
        x = x - y;
    else
        y = y - x;
} while(x!= y)

printf("%d",x);
```

Which one will be the output?

- (1) 18
- (2) 2
- (3) 92
- (4) 74

Options :

- 42558919292. 1
- 42558919293. 2
- 42558919294. 3
- 42558919295. 4

Question Number : 61 Question Id : 4255894966 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following technique is used for Clipping?

- (1) Stack based Seed
- (2) Scan Line Seed
- (3) Sutherland-Cohen
- (4) Inverse Scaling

Options :

- 42558919296. 1
- 42558919297. 2
- 42558919298. 3
- 42558919299. 4

Question Number : 61 Question Id : 4255894966 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following technique is used for Clipping?

- (1) Stack based Seed
- (2) Scan Line Seed
- (3) Sutherland-Cohen
- (4) Inverse Scaling

Options :

- 42558919296. 1
- 42558919297. 2
- 42558919298. 3
- 42558919299. 4

Question Number : 62 Question Id : 4255894967 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What will be the output of the following C programming code:

```
int i, j;
for(i=1; i<5; i+=2)
for(j=1; j<i; j+=2)
printf("%d", j);
```

- (1) 1
- (2) 1 2
- (3) 1 3
- (4) 1 1 3

Options :

- 42558919300. 1
- 42558919301. 2
- 42558919302. 3
- 42558919303. 4

Question Number : 62 Question Id : 4255894967 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What will be the output of the following C programming code:

```
int i, j;
for(i=1; i<5; i+=2)
for(j=1; j<i; j+=2)
printf("%d", j);
```

- (1) 1
- (2) 1 2
- (3) 1 3
- (4) 1 1 3

Options :

- 42558919300. 1
- 42558919301. 2
- 42558919302. 3
- 42558919303. 4

Question Number : 63 Question Id : 4255894968 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What would be the equivalent pointer expression for referring the array element `ar[m][n][o]`

- (1) `* (* (* (ar) + m + n) + o)`
- (2) `(* (* (* ar + m) + n) + o)`
- (3) `(* (* (ar + m) + n) + o)`
- (4) `* (* (* (ar + m) + n) + o)`

Options :

- 42558919304. 1
- 42558919305. 2
- 42558919306. 3
- 42558919307. 4

Question Number : 63 Question Id : 4255894968 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What would be the equivalent pointer expression for referring the array element  $ar[m][n][o]$

- (1)  $* (* (* (ar) + m + n) + o)$
- (2)  $(* (* (* ar + m) + n) + o)$
- (3)  $(* (* (ar + m) + n) + o)$
- (4)  $* (* (* (ar + m) + n) + o)$

Options :

- 42558919304. 1
- 42558919305. 2
- 42558919306. 3
- 42558919307. 4

Question Number : 64 Question Id : 4255894969 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider R (A,B,C,D,E) be relation with following dependencies:

$C \rightarrow F$ ,  $E \rightarrow A$ ,  $EC \rightarrow D$ ,  $A \rightarrow B$ . Which of the following is a key for R?

- (1) CD
- (2) EC
- (3) AE
- (4) AC

Options :

- 42558919308. 1
- 42558919309. 2
- 42558919310. 3
- 42558919311. 4

Question Number : 64 Question Id : 4255894969 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider R (A,B,C,D,E) be relation with following dependencies:

$C \rightarrow F$ ,  $E \rightarrow A$ ,  $EC \rightarrow D$ ,  $A \rightarrow B$ . Which of the following is a key for R?

- (1) CD
- (2) EC
- (3) AE
- (4) AC

Options :

- 42558919308. 1
- 42558919309. 2
- 42558919310. 3
- 42558919311. 4

Question Number : 65 Question Id : 4255894970 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the relation  $T1(A,B,C,D,E)$  with the dependencies  $\{EB \rightarrow C, D \rightarrow E, EA \rightarrow B\}$  and  $T2(A,B,C,D)$  with the dependencies  $\{C \rightarrow A, A \rightarrow B, A \rightarrow D\}$ . Which of the following is TRUE?

- (1) T1 is in 3NF
- (2) T2 is in 3NF
- (3) T1 is not in 3NF
- (4) T1 is in 2NF

Options :

- 42558919312. 1
- 42558919313. 2
- 42558919314. 3
- 42558919315. 4

Question Number : 65 Question Id : 4255894970 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the relation T1(A,B,C,D,E) with the dependencies {EB → C, D → E, EA → B} and T2(A,B,C,D) with the dependencies {C → A, A → B, A → D}. Which of the following is TRUE?

- (1) T1 is in 3NF
- (2) T2 is in 3NF
- (3) T1 is not in 3NF
- (4) T1 is in 2NF

Options :

- 42558919312. 1
- 42558919313. 2
- 42558919314. 3
- 42558919315. 4

Question Number : 66 Question Id : 4255894971 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a relational database, which one of the following is CORRECT:

- (1) A relation with only two attributes is always in BCNF.
- (2) If all attributes of a relation are prime attributes then the relation is in BCNF.
- (3) Every relation has at least one non-prime attribute.
- (4) BCNF decomposition preserves functional dependencies.

Options :

- 42558919316. 1
- 42558919317. 2
- 42558919318. 3
- 42558919319. 4

Question Number : 66 Question Id : 4255894971 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a relational database, which one of the following is CORRECT:

- (1) A relation with only two attributes is always in BCNF.
- (2) If all attributes of a relation are prime attributes then the relation is in BCNF.
- (3) Every relation has at least one non-prime attribute.
- (4) BCNF decomposition preserves functional dependencies.

Options :

- 42558919316. 1
- 42558919317. 2
- 42558919318. 3
- 42558919319. 4

Question Number : 67 Question Id : 4255894972 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following three relations

Employee (eid, eName), Comp(cid, cName), Own(eid, cid). Which of the following relational algebra expression return the set of eids who own all brands:

- (1)  $\pi_{eid}(\pi_{eid,cid}(Own) / \pi_{cid}(Comp))$
- (2)  $\pi_{eid}(\pi_{eid}(Own) \times \pi_{cid}(Comp))$
- (3)  $\pi_{eid}(\pi_{eid,cid}(Own) \times \pi_{cid}(Comp))$
- (4)  $\pi_{eid}(\pi_{eid}(Own) \times (\pi_{cid,cName}(Own) / \pi_{cid}(Comp)))$

Options :

- 42558919320. 1
- 42558919321. 2
- 42558919322. 3
- 42558919323. 4

Question Number : 67 Question Id : 4255894972 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following three relations

Employee (eid, eName), Comp(cid, cName), Own(eid, cid). Which of the following relational algebra expression return the set of eids who own all brands:

- (1)  $\pi_{eid}(\pi_{eid,cid}(Own)/\pi_{cid}(Comp))$
- (2)  $\pi_{eid}(\pi_{eid}(Own) \times \pi_{cid}(Comp))$
- (3)  $\pi_{eid}(\pi_{eid,cid}(Own) \times \pi_{cid}(Comp))$
- (4)  $\pi_{eid}(\pi_{eid}(Own) \times (\pi_{cid,cName}(Own)/\pi_{cid}(Comp)))$

Options :

42558919320. 1

42558919321. 2

42558919322. 3

42558919323. 4

Question Number : 68 Question Id : 4255894973 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following table about processes, their burst time and arrival time

Process	Burst Time	Arrival Time
P <sub>1</sub>	09	0
P <sub>2</sub>	30	0
P <sub>3</sub>	04	0
P <sub>4</sub>	08	2
P <sub>5</sub>	11	6

Now which of the process shall finish second last as per the respective GANTT charts for the non-preemptive SJF and Round Robin (*time quantum = 10*) scheduling methods.

1. SJF : P<sub>4</sub> ; RR : P<sub>4</sub>
2. SJF : P<sub>5</sub> ; RR : P<sub>4</sub>
3. SJF : P<sub>4</sub> ; RR : P<sub>3</sub>
4. SJF : P<sub>5</sub> ; RR : P<sub>5</sub>

Options :

42558919324. 1

42558919325. 2

42558919326. 3

42558919327. 4

Question Number : 68 Question Id : 4255894973 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Consider the following table about processes, their burst time and arrival time

Process	Burst Time	Arrival Time
P <sub>1</sub>	09	0
P <sub>2</sub>	30	0
P <sub>3</sub>	04	0
P <sub>4</sub>	08	2
P <sub>5</sub>	11	6

Now which of the process shall finish second last as per the respective GANTT charts for the non-preemptive SJF and Round Robin (*time quantum = 10*) scheduling methods.

1. SJF : P<sub>4</sub> ; RR : P<sub>4</sub>
2. SJF : P<sub>5</sub> ; RR : P<sub>4</sub>
3. SJF : P<sub>4</sub> ; RR : P<sub>3</sub>
4. SJF : P<sub>5</sub> ; RR : P<sub>5</sub>

Options :

- 42558919324. 1
- 42558919325. 2
- 42558919326. 3
- 42558919327. 4

Question Number : 69 Question Id : 4255894974 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the following statement is correct for Pthreads?

1. It refers to POSIX standard (IEEE 1002.1c)
2. This standard defines API for thread creation only
3. This is a specification only for thread behavior and not its implementation
4. Operating systems like Solaris, Linux & Mac OS X, except Tru64 UNIX, implement Pthreads

Options :

- 42558919328. 1
- 42558919329. 2
- 42558919330. 3
- 42558919331. 4

Question Number : 69 Question Id : 4255894974 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the following statement is correct for Pthreads?

1. It refers to POSIX standard (IEEE 1002.1c)
2. This standard defines API for thread creation only
3. This is a specification only for thread behavior and not its implementation
4. Operating systems like Solaris, Linux & Mac OS X, except Tru64 UNIX, implement Pthreads

Options :

- 42558919328. 1
- 42558919329. 2
- 42558919330. 3
- 42558919331. 4

Question Number : 70 Question Id : 4255894975 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What shall be the average waiting time per process if we know that 10 processes (on average) arrive every second and there are normally 20 processes in the queue?

1. 03 seconds
1. 02 seconds
2. 18 seconds
3. 09 seconds

Options :

42558919332. 1  
42558919333. 2  
42558919334. 3  
42558919335. 4

Question Number : 70 Question Id : 4255894975 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What shall be the average waiting time per process if we know that 10 processes (on average) arrive every second and there are normally 20 processes in the queue?

1. 03 seconds
1. 02 seconds
2. 18 seconds
3. 09 seconds

Options :

42558919332. 1  
42558919333. 2  
42558919334. 3  
42558919335. 4

Question Number : 71 Question Id : 4255894976 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the total swap time (*Swap in & Swap out*) in a system for a 15 MB process with a transfer rate of 30 MBps. Given that there is an average latency of 12 ms, however no head seeks involved.

1. 1.024 sec
2. 1.00 sec
3. 0.512 sec
4. 12 sec

Options :

42558919336. 1  
42558919337. 2  
42558919338. 3  
42558919339. 4

Question Number : 71 Question Id : 4255894976 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the total swap time (*Swap in & Swap out*) in a system for a 15 MB process with a transfer rate of 30 MBps. Given that there is an average latency of 12 ms, however no head seeks involved.

1. 1.024 sec
2. 1.00 sec
3. 0.512 sec
4. 12 sec

Options :

42558919336. 1  
42558919337. 2  
42558919338. 3  
42558919339. 4

Question Number : 72 Question Id : 4255894977 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is not a requirement elicitation Technique

- (1) Interviews
- (2) The use case approach
- (3) Facilitated Application Specification Technique (FAST)
- (4) Data Flow diagram

Options :

42558919340. 1  
42558919341. 2  
42558919342. 3  
42558919343. 4

Question Number : 72 Question Id : 4255894977 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is not a requirement elicitation Technique

- (1) Interviews
- (2) The use case approach
- (3) Facilitated Application Specification Technique (FAST)
- (4) Data Flow diagram

Options :

42558919340. 1  
42558919341. 2  
42558919342. 3  
42558919343. 4

Question Number : 73 Question Id : 4255894978 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Estimation of software development effort for organic software in basic COCOMO is

- (1)  $E = 2.4 (KLOC)^{1.05} PM$
- (2)  $E = 3.4 (KLOC)^{1.06} PM$
- (3)  $E = 2.0 (KLOC)^{1.05} PM$
- (4)  $E = 2.4 (KLOC)^{1.07} PM$

Options :

42558919344. 1  
42558919345. 2  
42558919346. 3  
42558919347. 4

Question Number : 73 Question Id : 4255894978 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Estimation of software development effort for organic software in basic COCOMO is

- (1)  $E = 2.4 (KLOC)^{1.05} PM$
- (2)  $E = 3.4 (KLOC)^{1.06} PM$
- (3)  $E = 2.0 (KLOC)^{1.05} PM$
- (4)  $E = 2.4 (KLOC)^{1.07} PM$

Options :

- 42558919344. 1
- 42558919345. 2
- 42558919346. 3
- 42558919347. 4

Question Number : 74 Question Id : 4255894979 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The process followed in order to find difficult, unknown and hidden information about a software system is called

- (1) Software Engineering
- (2) Software Re-Engineering
- (3) Reverse Engineering
- (4) Inverse Engineering

Options :

- 42558919348. 1
- 42558919349. 2
- 42558919350. 3
- 42558919351. 4

Question Number : 74 Question Id : 4255894979 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The process followed in order to find difficult, unknown and hidden information about a software system is called

- (1) Software Engineering
- (2) Software Re-Engineering
- (3) Reverse Engineering
- (4) Inverse Engineering

Options :

- 42558919348. 1
- 42558919349. 2
- 42558919350. 3
- 42558919351. 4

Question Number : 75 Question Id : 4255894980 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings is NOT a software characteristic?

- (1) Software does not wear out
- (2) Software is flexible
- (3) Software is not manufactured
- (4) Software is always correct

Options :

- 42558919352. 1
- 42558919353. 2
- 42558919354. 3
- 42558919355. 4

Question Number : 75 Question Id : 4255894980 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings is NOT a software characteristic?

- (1) Software does not wear out
- (2) Software is flexible
- (3) Software is not manufactured
- (4) Software is always correct

Options :

- 42558919352. 1
- 42558919353. 2
- 42558919354. 3
- 42558919355. 4

Question Number : 76 Question Id : 4255894981 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following infix expression Q:  $((A+B) * D) \uparrow (E - F)$ . The equivalent postfix expression of Q is

- (1)  $A B + D * E F \uparrow -$
- (2)  $A B + D * - \uparrow E F$
- (3)  $A B + D E * F - \uparrow$
- (4)  $A B + D * E F - \uparrow$

Options :

- 42558919356. 1
- 42558919357. 2
- 42558919358. 3
- 42558919359. 4

Question Number : 76 Question Id : 4255894981 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following infix expression Q:  $((A+B) * D) \uparrow (E - F)$ . The equivalent postfix expression of Q is

- (1)  $A B + D * E F \uparrow -$
- (2)  $A B + D * - \uparrow E F$
- (3)  $A B + D E * F - \uparrow$
- (4)  $A B + D * E F - \uparrow$

Options :

- 42558919356. 1
- 42558919357. 2
- 42558919358. 3
- 42558919359. 4

Question Number : 77 Question Id : 4255894982 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The tight asymptotic bound for the recurrence  $T(n) = 2T(n/4) + \sqrt{n}$  is

- (1)  $\Theta(\sqrt{n})$
- (2)  $\Theta(n \log n)$
- (3)  $\Theta(\sqrt{n} \log n)$
- (4)  $\Theta(n \log \sqrt{n})$

Options :

- 42558919360. 1
- 42558919361. 2
- 42558919362. 3
- 42558919363. 4

Question Number : 77 Question Id : 4255894982 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The tight asymptotic bound for the recurrence  $T(n) = 2T(n/4) + \sqrt{n}$  is

- (1)  $\Theta(\sqrt{n})$
- (2)  $\Theta(n \log n)$
- (3)  $\Theta(\sqrt{n} \log n)$
- (4)  $\Theta(n \log \sqrt{n})$

Options :

42558919360. 1

42558919361. 2

42558919362. 3

42558919363. 4

Question Number : 78 Question Id : 4255894983 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The longest common subsequence of  $\{1,2,3,2,4,1,2\}$  and  $\{2,4,3,1,2,1\}$  is

- (1) 2,1,2,3
- (2) 1,3,2,1
- (3) 2,3,2,1
- (4) 2,3,1,2,1

Options :

42558919364. 1

42558919365. 2

42558919366. 3

42558919367. 4

Question Number : 78 Question Id : 4255894983 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The longest common subsequence of  $\{1,2,3,2,4,1,2\}$  and  $\{2,4,3,1,2,1\}$  is

- (1) 2,1,2,3
- (2) 1,3,2,1
- (3) 2,3,2,1
- (4) 2,3,1,2,1

Options :

42558919364. 1

42558919365. 2

42558919366. 3

42558919367. 4

Question Number : 79 Question Id : 4255894984 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question

Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Maintaining a graph in memory by means of its adjacency matrix is known as

- (1) Complete Representation
- (2) Linked Representation
- (3) Circular Representation
- (4) Sequential Representation

Options :

42558919368. 1

42558919369. 2

42558919370. 3

42558919371. 4

Question Number : 79 Question Id : 4255894984 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Maintaining a graph in memory by means of its adjacency matrix is known as

- (1) Complete Representation
- (2) Linked Representation
- (3) Circular Representation
- (4) Sequential Representation

Options :

42558919368. 1

42558919369. 2

42558919370. 3

42558919371. 4

Question Number : 80 Question Id : 4255894985 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What will be the output of the following C Programming code :

```
void main ( )
{
    int *i, a=12, b=2, c;
    c= (a=a+b, b=a/b, a=a*b, b=a-b)
    i = &c;
    printf(“%d”, --(*i));
}
```

1. 91
2. 90
3. 98
4. 92

Options :

42558919372. 1

42558919373. 2

42558919374. 3

42558919375. 4

Question Number : 80 Question Id : 4255894985 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What will be the output of the following C Programming code :

```
void main ( )
{
    int *i, a=12, b=2, c;

    c= (a=a+b, b=a/b, a=a*b, b=a-b)

    i = &c;

    printf(“%d”, --(*i));
}
```

1. 91
2. 90
3. 98
4. 92

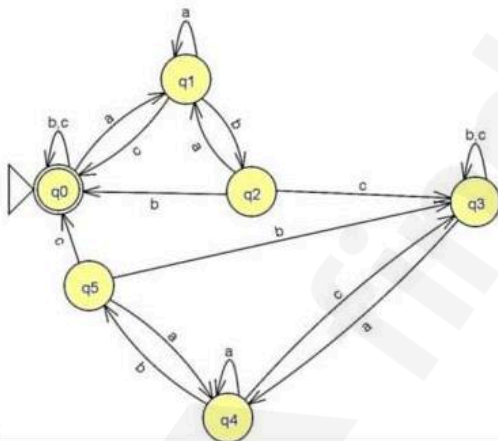
Options :

- 42558919372. 1
- 42558919373. 2
- 42558919374. 3
- 42558919375. 4

Question Number : 81 Question Id : 4255894986 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following DFA that generates set of strings over  $\Sigma=\{a, b, c\}$



Now identify that which of the followings is the best description of the language for the above DFA

1.  $L = (a^* + b^* + c^*)^*$
2.  $L = (a + b + c)^*(abc)^*(a + b + c)^*$
3.  $L = \{\text{Set of strings, all starting with 'a, b, c' but ending with 'c'}\}$
4.  $L = \{\text{Set of strings, all having even count (including 0) of substring 'abc'}\}$

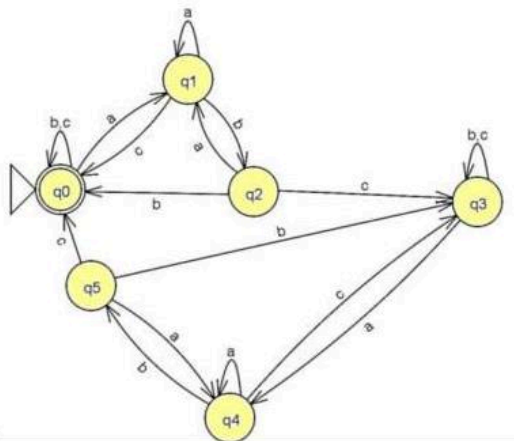
Options :

- 42558919376. 1
- 42558919377. 2
- 42558919378. 3
- 42558919379. 4

Question Number : 81 Question Id : 4255894986 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following DFA that generates set of strings over  $\Sigma = \{a, b, c\}$



Now identify that which of the followings is the best description of the language for the above DFA

1.  $L = (a^* + b^* + c^*)^+$
2.  $L = (a + b + c)^*(abc)^+(a + b + c)^*$
3.  $L = \{\text{Set of strings, all starting with 'a, b, c' but ending with 'c'}\}$
4.  $L = \{\text{Set of strings, all having even count (including 0) of substring 'abc'}\}$

Options :

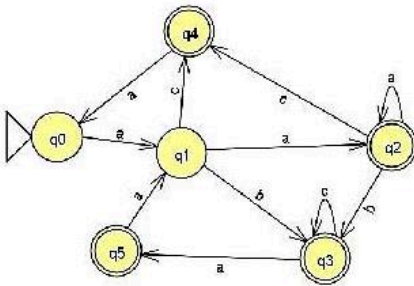
42558919376. 1

42558919377. 2

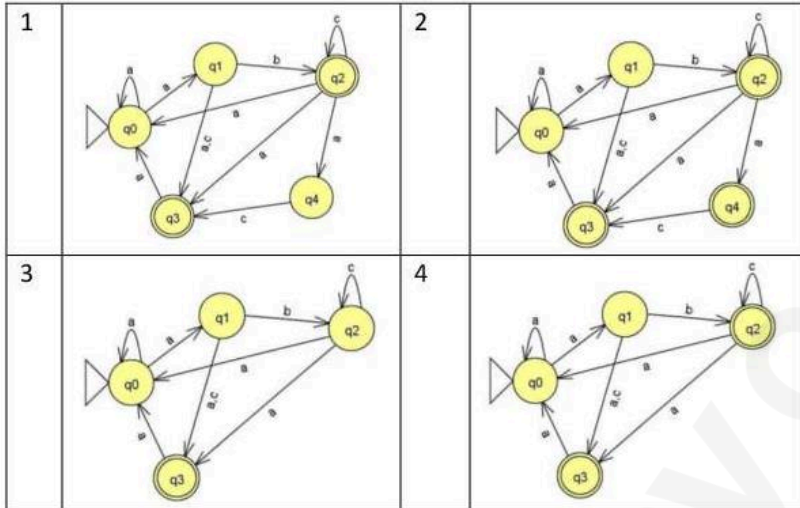
42558919378. 3

42558919379. 4

Consider the following DFA



Which of the following NFA is valid for the given DFA ?



Options :

42558919380. 1

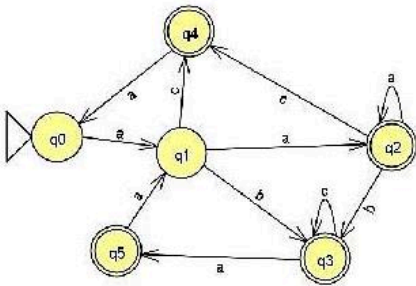
42558919381. 2

42558919382. 3

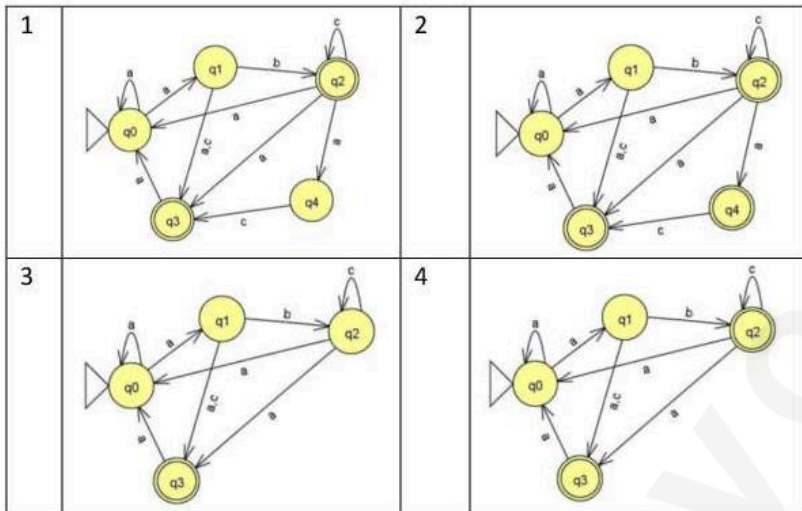
42558919383. 4

Question Number : 82 Question Id : 4255894987 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Consider the following DFA



Which of the following NFA is valid for the given DFA ?



Options :

- 42558919380. 1
- 42558919381. 2
- 42558919382. 3
- 42558919383. 4

Question Number : 83 Question Id : 4255894988 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

In a Stop-and-wait system, the bandwidth of the line is 1 Mbps, and 1 bit takes 30 milliseconds to make a round trip. The bandwidth-delay product is

- (1) 15,000 bits
- (2) 20,000 bits
- (3) 30,000 bits
- (4) 60,000 bits

Options :

- 42558919384. 1
- 42558919385. 2
- 42558919386. 3
- 42558919387. 4

Question Number : 83 Question Id : 4255894988 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In a Stop-and-wait system, the bandwidth of the line is 1 Mbps, and 1 bit takes 30 milliseconds to make a round trip. The bandwidth-delay product is

- (1) 15,000 bits
- (2) 20,000 bits
- (3) 30,000 bits
- (4) 60,000 bits

Options :

42558919384. 1  
42558919385. 2  
42558919386. 3  
42558919387. 4

Question Number : 84 Question Id : 4255894989 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**CB84000D001C001C** is the content of a UDP header in hexadecimal format. The source port number is

- (1) 52100
- (2) 13
- (3) 28
- (4) 52000

Options :

42558919388. 1  
42558919389. 2  
42558919390. 3  
42558919391. 4

Question Number : 84 Question Id : 4255894989 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**CB84000D001C001C** is the content of a UDP header in hexadecimal format. The source port number is

- (1) 52100
- (2) 13
- (3) 28
- (4) 52000

Options :

42558919388. 1  
42558919389. 2  
42558919390. 3  
42558919391. 4

Question Number : 85 Question Id : 4255894990 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The packet sent by a node to the source to inform it of congestion is called

- (1) Explicit
- (2) Backpressure
- (3) Choke
- (4) Retransmission

Options :

42558919392. 1  
42558919393. 2  
42558919394. 3  
42558919395. 4

Question Number : 85 Question Id : 4255894990 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

The packet sent by a node to the source to inform it of congestion is called

- (1) Explicit
- (2) Backpressure
- (3) Choke
- (4) Retransmission

Options :

42558919392. 1
42558919393. 2
42558919394. 3
42558919395. 4

Question Number : 86 Question Id : 4255894991 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the following is not the characteristics of packet switching?

- (1) Data is broken into packets
- (2) Each packet may take a different route
- (3) Requires a dedicated path
- (4) Supports dynamic routing

Options :

42558919396. 1
42558919397. 2
42558919398. 3
42558919399. 4

Question Number : 86 Question Id : 4255894991 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the following is not the characteristics of packet switching?

- (1) Data is broken into packets
- (2) Each packet may take a different route
- (3) Requires a dedicated path
- (4) Supports dynamic routing

Options :

42558919396. 1
42558919397. 2
42558919398. 3
42558919399. 4

Question Number : 87 Question Id : 4255894992 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the followings is not a valid property over two fuzzy relations  $\tilde{R}$  and  $\tilde{S}$  which must be obeyed for performing  $\lambda$ -cut defuzzifications?

1.  $(\tilde{R} \cup \tilde{S})_\lambda = \tilde{R}_\lambda \cup \tilde{S}_\lambda$
2.  $(\tilde{R} \cap \tilde{S})_\lambda = \tilde{R}_\lambda \cap \tilde{S}_\lambda$
3.  $(\overline{\tilde{R}})_\lambda \neq \overline{\tilde{R}_\lambda}$  except when  $\lambda = 1$
4. For any  $\lambda \leq \beta$ , where  $0 \leq \beta \leq 1$ , it is true that  $R_\beta \subseteq R_\lambda$

Options :

42558919400. 1
42558919401. 2
42558919402. 3
42558919403. 4

Question Number : 87 Question Id : 4255894992 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings is not a valid property over two fuzzy relations  $\tilde{R}$  and  $\tilde{S}$  which must be obeyed for performing  $\lambda$ -cut defuzzifications?

1.  $(\tilde{R} \cup \tilde{S})_\lambda = \tilde{R}_\lambda \cup \tilde{S}_\lambda$
2.  $(\tilde{R} \cap \tilde{S})_\lambda = \tilde{R}_\lambda \cap \tilde{S}_\lambda$
3.  $(\tilde{R})_\lambda \neq \tilde{R}_\lambda$  except when  $\lambda = 1$
4. For any  $\lambda \leq \beta$ , where  $0 \leq \beta \leq 1$ , it is true that  $R_\beta \subseteq R_\lambda$

Options :

- 42558919400. 1
- 42558919401. 2
- 42558919402. 3
- 42558919403. 4

Question Number : 88 Question Id : 4255894993 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings is Not a parent selection technique used in genetic algorithm implementations

1. Radial
2. Tournament
3. Boltzmann
4. Rank

Options :

- 42558919404. 1
- 42558919405. 2
- 42558919406. 3
- 42558919407. 4

Question Number : 88 Question Id : 4255894993 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings is Not a parent selection technique used in genetic algorithm implementations

1. Radial
2. Tournament
3. Boltzmann
4. Rank

Options :

- 42558919404. 1
- 42558919405. 2
- 42558919406. 3
- 42558919407. 4

Question Number : 89 Question Id : 4255894994 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given that  $\eta$  refers to learning rate and  $x_i$  refers to the  $i^{\text{th}}$  input to the neuron, Which of the followings most suitably describes the weight updation rule of a Kohonen SOM? (where 'j' refers to the  $j^{\text{th}}$  neuron in the lattice)

1.  $w_{ij}(\text{new}) = (1 - \eta) * w_{ij}(\text{old}) + \eta * x_i$
2.  $w_{ij}(\text{new}) = \eta * w_{ij}(\text{old}) + (1 - \eta) * x_i$
3.  $w_{ij}(\text{new}) = (1 - \eta) * w_{ij}(\text{old}) + x_i$
4.  $w_{ij}(\text{new}) = w_{ij}(\text{old}) + \eta * x_i$

Options :

- 42558919408. 1
- 42558919409. 2
- 42558919410. 3
- 42558919411. 4

Question Number : 89 Question Id : 4255894994 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given that  $\eta$  refers to learning rate and  $x_i$  refers to the  $i^{\text{th}}$  input to the neuron, Which of the followings most suitably describes the weight updation rule of a Kohonen SOM? (where 'j' refers to the  $j^{\text{th}}$  neuron in the lattice)

1.  $w_{ij}(\text{new}) = (1 - \eta) * w_{ij}(\text{old}) + \eta * x_i$
2.  $w_{ij}(\text{new}) = \eta * w_{ij}(\text{old}) + (1 - \eta) * x_i$
3.  $w_{ij}(\text{new}) = (1 - \eta) * w_{ij}(\text{old}) + x_i$
4.  $w_{ij}(\text{new}) = w_{ij}(\text{old}) + \eta * x_i$

Options :

- 42558919408. 1
- 42558919409. 2
- 42558919410. 3
- 42558919411. 4

Question Number : 90 Question Id : 4255894995 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following table defining the sample inputs and corresponding target values for a perceptron model.

Sample No	x1	x2	target	w1	w2
S1	0	0	0	0	0
S2	0	1	1		
S3	1	0	1		
S4	1	1	1		

What shall be the value of updated weights **after** applying all the samples S1 to S4 (in the order S1, S2, S3, S4) to this model. Given that the initial weights  $w_1=0$ ,  $w_2=0$ , learning rate  $=0.1$  and no bias is involved in the perceptron. The activation function for this perceptron is given below

$$y_{\text{observed}} = \begin{cases} 1 & \text{if } y_{in} > 0 \\ 0 & \text{if } y_{in} < 0 \end{cases}$$

1.  $w_1=0.1$ ,  $w_2 = 0.1$
2.  $w_1=0.0$ ,  $w_2 = 0.2$
3.  $w_1=0.0$ ,  $w_2 = 0.1$
4.  $w_1=0.2$ ,  $w_2 = 0.2$

Options :

42558919412. 1

42558919413. 2

42558919414. 3

42558919415. 4

Question Number : 90 Question Id : 4255894995 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following table defining the sample inputs and corresponding target values for a perceptron model.

Sample No	x1	x2	target	w1	w2
S1	0	0	0	0	0
S2	0	1	1		
S3	1	0	1		
S4	1	1	1		

What shall be the value of updated weights **after** applying all the samples S1 to S4 (in the order S1, S2, S3, S4) to this model. Given that the initial weights  $w_1=0$ ,  $w_2=0$ , learning rate  $=0.1$  and no bias is involved in the perceptron. The activation function for this perceptron is given below

$$y_{\text{observed}} = \begin{cases} 1 & \text{if } y_{in} > 0 \\ 0 & \text{if } y_{in} < 0 \end{cases}$$

1.  $w_1=0.1$ ,  $w_2 = 0.1$
2.  $w_1=0.0$ ,  $w_2 = 0.2$
3.  $w_1=0.0$ ,  $w_2 = 0.1$
4.  $w_1=0.2$ ,  $w_2 = 0.2$

Options :

42558919412. 1

42558919413. 2

42558919414. 3

42558919415. 4

Question Number : 91 Question Id : 4255894996 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The computer needs to process each instruction with the following sequence of steps:

- A. Calculate the effective address
- B. Fetch the Instruction from memory
- C. Decode the instruction
- D. Fetch the operands from the memory
- E. Execute the Instruction

Choose the correct answer from the options given below:

- 1. A, B, C, D, E
- 2. B, A, D, A, E
- 3. B, C, A, D, E
- 4. C, B, A, D, E

Options :

- 42558919416. 1
- 42558919417. 2
- 42558919418. 3
- 42558919419. 4

Question Number : 91 Question Id : 4255894996 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The computer needs to process each instruction with the following sequence of steps:

- A. Calculate the effective address
- B. Fetch the Instruction from memory
- C. Decode the instruction
- D. Fetch the operands from the memory
- E. Execute the Instruction

Choose the correct answer from the options given below:

- 1. A, B, C, D, E
- 2. B, A, D, A, E
- 3. B, C, A, D, E
- 4. C, B, A, D, E

Options :

- 42558919416. 1
- 42558919417. 2
- 42558919418. 3
- 42558919419. 4

Question Number : 92 Question Id : 4255894997 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The right sequence of suboperations that are performed in arithmetic pipeline is-

- A. Align the mantissas
- B. Add or subtract the mantissas
- C. Normalize the result
- D. Compare the exponents

Choose the correct answer from the options given below:

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

Options :

- 42558919420. 1
- 42558919421. 2
- 42558919422. 3
- 42558919423. 4

Question Number : 92 Question Id : 4255894997 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The right sequence of suboperations that are performed in arithmetic pipeline is-

- A. Align the mantissas
- B. Add or subtract the mantissas
- C. Normalize the result
- D. Compare the exponents

Choose the correct answer from the options given below:

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

Options :

- 42558919420. 1
- 42558919421. 2
- 42558919422. 3
- 42558919423. 4

Question Number : 93 Question Id : 4255894998 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The right sequence of CPU program to input data will be :

- A. Read status register
- B. Check flag bit
- C. Read Data Register
- D. Transfer data to memory

Choose the correct answer from the options given below:

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

Options :

- 42558919424. 1
- 42558919425. 2
- 42558919426. 3
- 42558919427. 4

Question Number : 93 Question Id : 4255894998 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The right sequence of CPU program to input data will be :

- A. Read status register
- B. Check flag bit
- C. Read Data Register
- D. Transfer data to memory

Choose the correct answer from the options given below:

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

Options :

- 42558919424. 1
- 42558919425. 2
- 42558919426. 3
- 42558919427. 4

Question Number : 94 Question Id : 4255894999 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the operators used in C Programming given below:

- A. &&
- B. +=
- C. >>
- D. >=
- E. ?:

Choose among the following the correct order of precedence of the operators given above (higher to lower):

- 1. C, D, E, B, A
- 2. C, A, D, E, B
- 3. C, D, A, E, B
- 4. D, C, A, B, E

Options :

- 42558919428. 1
- 42558919429. 2
- 42558919430. 3
- 42558919431. 4

Question Number : 94 Question Id : 4255894999 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the operators used in C Programming given below:

- A. &&
- B. +=
- C. >>
- D. >=
- E. ?:

Choose among the following the correct order of precedence of the operators given above (higher to lower):

- 1. C, D, E, B, A
- 2. C, A, D, E, B
- 3. C, D, A, E, B
- 4. D, C, A, B, E

Options :

- 42558919428. 1
- 42558919429. 2
- 42558919430. 3
- 42558919431. 4

Question Number : 95 Question Id : 4255895000 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following interrupt protection levels in Linux, and arrange them in the increasing order of their priorities.

- A. User-Mode Programs (*Preemptible*)
- B. Bottom Half Interrupt Handlers
- C. Top Half Interrupt Handlers
- D. Kernel System Service Routines (*Preemptible*)

Choose the correct answer from the options given below:

- 1. B → A → C → D
- 2. C → B → A → D
- 3. C → A → B → D
- 4. A → D → B → C

Options :

- 42558919432. 1
- 42558919433. 2
- 42558919434. 3
- 42558919435. 4

Question Number : 95 Question Id : 4255895000 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following interrupt protection levels in Linux, and arrange them in the increasing order of their priorities.

- A. User-Mode Programs (*Preemptible*)
- B. Bottom Half Interrupt Handlers
- C. Top Half Interrupt Handlers
- D. Kernel System Service Routines (*Preemptible*)

Choose the correct answer from the options given below:

- 1. B → A → C → D
- 2. C → B → A → D
- 3. C → A → B → D
- 4. A → D → B → C

Options :

- 42558919432. 1
- 42558919433. 2
- 42558919434. 3
- 42558919435. 4

Question Number : 96 Question Id : 4255895001 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings shows the correct hierarchy of a layered file system in an operating system

- A. Logical File System
- B. File Organization Module
- C. Basic File System
- D. I/O Control
- E. Application Programs

Choose the correct answer from the options given below:

- 1. A → B → D → C → E
- 2. D → E → C → A → B
- 3. E → A → B → C → D
- 4. E → C → B → A → D

Options :

- 42558919436. 1
- 42558919437. 2
- 42558919438. 3
- 42558919439. 4

Question Number : 96 Question Id : 4255895001 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the followings shows the correct hierarchy of a layered file system in an operating system

- A. Logical File System
- B. File Organization Module
- C. Basic File System
- D. I/O Control
- E. Application Programs

Choose the correct answer from the options given below:

- 1. A → B → D → C → E
- 2. D → E → C → A → B
- 3. E → A → B → C → D
- 4. E → C → B → A → D

Options :

- 42558919436. 1
- 42558919437. 2
- 42558919438. 3
- 42558919439. 4

Question Number : 97 Question Id : 4255895002 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following in the increasing order of coupling from lowest coupling to highest coupling.

A. Common Coupling

B. Stamp Coupling

C. Control Coupling

D. External Coupling

E. Content Coupling

Choose the correct answer from the options given below:

1. E, A, C, B, D
2. D, B, A, E, C
3. B, C, D, A, E
4. C, A, B, D, E

Options :

42558919440. 1

42558919441. 2

42558919442. 3

42558919443. 4

Question Number : 97 Question Id : 4255895002 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following in the increasing order of coupling from lowest coupling to highest coupling.

A. Common Coupling

B. Stamp Coupling

C. Control Coupling

D. External Coupling

E. Content Coupling

Choose the correct answer from the options given below:

1. E, A, C, B, D
2. D, B, A, E, C
3. B, C, D, A, E
4. C, A, B, D, E

Options :

42558919440. 1

42558919441. 2

42558919442. 3

42558919443. 4

Question Number : 98 Question Id : 4255895003 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Arrange the following types of testing in the order they are usually performed in the software Development life cycle.

- A. Integration testing
- B. Unit testing
- C. System Testing
- D. Acceptance Testing

Choose the correct answer from the options given below:

1. B, C, A, D
2. B, A, C, D
3. C, B, A, D
4. C, B, D, A

Options :

- 42558919444. 1
- 42558919445. 2
- 42558919446. 3
- 42558919447. 4

Question Number : 98 Question Id : 4255895003 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Arrange the following types of testing in the order they are usually performed in the software Development life cycle.

- A. Integration testing
- B. Unit testing
- C. System Testing
- D. Acceptance Testing

Choose the correct answer from the options given below:

1. B, C, A, D
2. B, A, C, D
3. C, B, A, D
4. C, B, D, A

Options :

- 42558919444. 1
- 42558919445. 2
- 42558919446. 3
- 42558919447. 4

Question Number : 99 Question Id : 4255895004 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

The correct sequence of constructing Huffman tree is

- A. Repeat until root formed
- B. Create leaf nodes
- C. Build priority queue
- D. Combine lowest frequency nodes

Choose the correct answer from the options given below:

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

Options :

- 42558919448. 1
- 42558919449. 2
- 42558919450. 3
- 42558919451. 4

Question Number : 99 Question Id : 4255895004 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

The correct sequence of constructing Huffman tree is

- A. Repeat until root formed
- B. Create leaf nodes
- C. Build priority queue
- D. Combine lowest frequency nodes

Choose the correct answer from the options given below:

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

Options :

- 42558919448. 1
- 42558919449. 2
- 42558919450. 3
- 42558919451. 4

Question Number : 100 Question Id : 4255895005 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**When developing a dynamic programming algorithm, the sequence of steps followed is:**

- A. Construct an optimal solution from computed information.**
- B. Recursively define the value of an optimal solution.**
- C. Characterize the structure of an optimal solution.**
- D. Compute the value of an optimal solution, typically in a bottom-up fashion.**

Choose the correct answer from the options given below:

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

**Options :**

42558919452. 1

42558919453. 2

42558919454. 3

42558919455. 4

Question Number : 100 Question Id : 4255895005 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**When developing a dynamic programming algorithm, the sequence of steps followed is:**

- A. Construct an optimal solution from computed information.**
- B. Recursively define the value of an optimal solution.**
- C. Characterize the structure of an optimal solution.**
- D. Compute the value of an optimal solution, typically in a bottom-up fashion.**

Choose the correct answer from the options given below:

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

**Options :**

42558919452. 1

42558919453. 2

42558919454. 3

42558919455. 4

Question Number : 101 Question Id : 4255895006 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following parsers in increasing order of their power of handling grammars i.e. from the least powerful parser to the most powerful parser.

- A. LR(0)
- B. LR(1)
- C. LALR(1)
- D. LL(0)
- E. SLR

Choose the correct answer from the options given below:

1. LL(0) → LR(0) → SLR → LR(1) → LALR(1)
2. SLR → LR(0) → LL(0) → LR(1) → LALR(1)
3. LL(0) → LR(0) → SLR → LALR(1) → LR(1)
4. LR(0) → LL(0) → SLR → LR(1) → LALR(1)

Options :

- 42558919456. 1
- 42558919457. 2
- 42558919458. 3
- 42558919459. 4

Question Number : 101 Question Id : 4255895006 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following parsers in increasing order of their power of handling grammars i.e. from the least powerful parser to the most powerful parser.

- A. LR(0)
- B. LR(1)
- C. LALR(1)
- D. LL(0)
- E. SLR

Choose the correct answer from the options given below:

1. LL(0) → LR(0) → SLR → LR(1) → LALR(1)
2. SLR → LR(0) → LL(0) → LR(1) → LALR(1)
3. LL(0) → LR(0) → SLR → LALR(1) → LR(1)
4. LR(0) → LL(0) → SLR → LR(1) → LALR(1)

Options :

- 42558919456. 1
- 42558919457. 2
- 42558919458. 3
- 42558919459. 4

Question Number : 102 Question Id : 4255895007 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Arrange the steps involved when a user enters a URL in a browser and accesses a website.

- A. DNS resolution
- B. HTTP request sent
- C. URL entered in the browser
- D. IP address obtained
- E. Webpage displayed

Choose the correct answer from the options given below:

- 1. B, A, C, E, D
- 2. C, B, A, E, D
- 3. B, C, D, A, E
- 4. C, A, D, B, E

Options :

- 42558919460. 1
- 42558919461. 2
- 42558919462. 3
- 42558919463. 4

Question Number : 102 Question Id : 4255895007 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Arrange the steps involved when a user enters a URL in a browser and accesses a website.

- A. DNS resolution
- B. HTTP request sent
- C. URL entered in the browser
- D. IP address obtained
- E. Webpage displayed

Choose the correct answer from the options given below:

- 1. B, A, C, E, D
- 2. C, B, A, E, D
- 3. B, C, D, A, E
- 4. C, A, D, B, E

Options :

- 42558919460. 1
- 42558919461. 2
- 42558919462. 3
- 42558919463. 4

Question Number : 103 Question Id : 4255895008 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the process of virtualization in cloud environments.

- A. Hypervisor installed on physical server
- B. Virtual machines created
- C. Resources allocated to Virtual machines
- D. Virtual machines run isolated workloads

Choose the correct answer from the options given below:

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

Options :

42558919464. 1

42558919465. 2

42558919466. 3

42558919467. 4

Question Number : 103 Question Id : 4255895008 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the process of virtualization in cloud environments.

- A. Hypervisor installed on physical server
- B. Virtual machines created
- C. Resources allocated to Virtual machines
- D. Virtual machines run isolated workloads

Choose the correct answer from the options given below:

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

Options :

42558919464. 1

42558919465. 2

42558919466. 3

42558919467. 4

Question Number : 104 Question Id : 4255895009 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Consider the following steps used by a knowledge base designer to represent a world

- A. Selects atoms to represent propositions
- B. Ask questions about intended interpretation
- C. Choose a task domain
- D. Axiomatizing the domain

Choose the correct answer from the options given below:

- 1.  $C \rightarrow A \rightarrow D \rightarrow B$
- 2.  $C \rightarrow A \rightarrow B \rightarrow D$
- 3.  $B \rightarrow C \rightarrow A \rightarrow D$
- 4.  $A \rightarrow C \rightarrow B \rightarrow D$

Options :

- 42558919468. 1
- 42558919469. 2
- 42558919470. 3
- 42558919471. 4

Question Number : 104 Question Id : 4255895009 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Consider the following steps used by a knowledge base designer to represent a world

- A. Selects atoms to represent propositions
- B. Ask questions about intended interpretation
- C. Choose a task domain
- D. Axiomatizing the domain

Choose the correct answer from the options given below:

- 1.  $C \rightarrow A \rightarrow D \rightarrow B$
- 2.  $C \rightarrow A \rightarrow B \rightarrow D$
- 3.  $B \rightarrow C \rightarrow A \rightarrow D$
- 4.  $A \rightarrow C \rightarrow B \rightarrow D$

Options :

- 42558919468. 1
- 42558919469. 2
- 42558919470. 3
- 42558919471. 4

Question Number : 105 Question Id : 4255895010 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following steps involved in the application of Genetic algorithm for a problem

- A. Select a pair of parents from the population
- B. Apply mutation at each locus with probability  $p_m$
- C. Calculate fitness of each member of the population
- D. Apply crossover with probability  $p_c$  to form offsprings

Choose the correct answer from the options given below describing the correct order of the above steps:

- 1. A  $\rightarrow$  C  $\rightarrow$  B  $\rightarrow$  D
- 2. C  $\rightarrow$  A  $\rightarrow$  D  $\rightarrow$  B
- 3. C  $\rightarrow$  A  $\rightarrow$  B  $\rightarrow$  D
- 4. A  $\rightarrow$  D  $\rightarrow$  B  $\rightarrow$  C

Options :

- 42558919472. 1
- 42558919473. 2
- 42558919474. 3
- 42558919475. 4

Question Number : 105 Question Id : 4255895010 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following steps involved in the application of Genetic algorithm for a problem

- A. Select a pair of parents from the population
- B. Apply mutation at each locus with probability  $p_m$
- C. Calculate fitness of each member of the population
- D. Apply crossover with probability  $p_c$  to form offsprings

Choose the correct answer from the options given below describing the correct order of the above steps:

- 1. A  $\rightarrow$  C  $\rightarrow$  B  $\rightarrow$  D
- 2. C  $\rightarrow$  A  $\rightarrow$  D  $\rightarrow$  B
- 3. C  $\rightarrow$  A  $\rightarrow$  B  $\rightarrow$  D
- 4. A  $\rightarrow$  D  $\rightarrow$  B  $\rightarrow$  C

Options :

- 42558919472. 1
- 42558919473. 2
- 42558919474. 3
- 42558919475. 4

Question Number : 106 Question Id : 4255895011 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let P denote "She is intelligent" and let Q denote "She is happy."

Given below are the statements:

- (a) If She is intelligent, then She is unhappy.
- (b) She is neither intelligent nor happy.
- (c) It is necessary to be not intelligent in order to be happy.
- (d) To be not intelligent is to be unhappy.

Which of the following is correct Propositional expression for the above statements:

- (1)  $P \rightarrow \neg Q$ ; (b)  $P \wedge \neg Q$ ; (c)  $Q \rightarrow \neg P$ ; (d)  $P \rightarrow \neg Q$
- (2)  $P \rightarrow Q$ ; (b)  $\neg P \wedge \neg Q$ ; (c)  $\neg Q \rightarrow P$ ; (d)  $\neg P \rightarrow \neg Q$
- (3)  $P \rightarrow \neg Q$ ; (b)  $\neg P \wedge \neg Q$ ; (c)  $Q \rightarrow \neg P$ ; (d)  $\neg P \rightarrow \neg Q$
- (4)  $P \rightarrow \neg Q$ ; (b)  $P \wedge \neg Q$ ; (c)  $Q \rightarrow P$ ; (d)  $\neg P \rightarrow \neg Q$

Options :

- 42558919476. 1
- 42558919477. 2
- 42558919478. 3
- 42558919479. 4

Question Number : 106 Question Id : 4255895011 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let P denote "She is intelligent" and let Q denote "She is happy."

Given below are the statements:

- (a) If She is intelligent, then She is unhappy.
- (b) She is neither intelligent nor happy.
- (c) It is necessary to be not intelligent in order to be happy.
- (d) To be not intelligent is to be unhappy.

Which of the following is correct Propositional expression for the above statements:

- (1)  $P \rightarrow \neg Q$ ; (b)  $P \wedge \neg Q$ ; (c)  $Q \rightarrow \neg P$ ; (d)  $P \rightarrow \neg Q$
- (2)  $P \rightarrow Q$ ; (b)  $\neg P \wedge \neg Q$ ; (c)  $\neg Q \rightarrow P$ ; (d)  $\neg P \rightarrow \neg Q$
- (3)  $P \rightarrow \neg Q$ ; (b)  $\neg P \wedge \neg Q$ ; (c)  $Q \rightarrow \neg P$ ; (d)  $\neg P \rightarrow \neg Q$
- (4)  $P \rightarrow \neg Q$ ; (b)  $P \wedge \neg Q$ ; (c)  $Q \rightarrow P$ ; (d)  $\neg P \rightarrow \neg Q$

Options :

- 42558919476. 1
- 42558919477. 2
- 42558919478. 3
- 42558919479. 4

Question Number : 107 Question Id : 4255895012 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $m$  and  $n$  are positive integers. Then

- (A) If  $n \neq 1$ , then  $m < mn$ .
- (B) If  $k$  is composite, then  $k = mn$  where  $1 < m, n > k$
- (C) If  $mn = 1$ , then  $m = 1$  and  $n = 1$ .
- (D) If  $k$  is composite, then  $k = mn$  where  $1 < m, n < k$

Which of the following is correct:

- (1) (A), (C), (D)
- (2) (B), (C), (D)
- (3) (A), (B)
- (4) (A), (B), (C)

Options :

42558919480. 1

42558919481. 2

42558919482. 3

42558919483. 4

Question Number : 107 Question Id : 4255895012 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Let  $m$  and  $n$  are positive integers. Then

- (A) If  $n \neq 1$ , then  $m < mn$ .
- (B) If  $k$  is composite, then  $k = mn$  where  $1 < m, n > k$
- (C) If  $mn = 1$ , then  $m = 1$  and  $n = 1$ .
- (D) If  $k$  is composite, then  $k = mn$  where  $1 < m, n < k$

Which of the following is correct:

- (1) (A), (C), (D)
- (2) (B), (C), (D)
- (3) (A), (B)
- (4) (A), (B), (C)

Options :

42558919480. 1

42558919481. 2

42558919482. 3

42558919483. 4

Question Number : 108 Question Id : 4255895013 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true ?

- A. In the write-through policy, only the cache is updated
- B. In the write-back policy, both cache and main memory are updated
- C. Cache coherence problems exist in multiprocessors with private caches because of the need to share writable data
- D. Cache coherence problem can be solved by means of hardware-only scheme

Choose the correct answer from the options given below:

- 1. A, B Only
- 2. B, C Only
- 3. C, D Only
- 4. A, B, C Only

Options :

- 42558919484. 1
- 42558919485. 2
- 42558919486. 3
- 42558919487. 4

Question Number : 108 Question Id : 4255895013 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true ?

- A. In the write-through policy, only the cache is updated
- B. In the write-back policy, both cache and main memory are updated
- C. Cache coherence problems exist in multiprocessors with private caches because of the need to share writable data
- D. Cache coherence problem can be solved by means of hardware-only scheme

Choose the correct answer from the options given below:

- 1. A, B Only
- 2. B, C Only
- 3. C, D Only
- 4. A, B, C Only

Options :

- 42558919484. 1
- 42558919485. 2
- 42558919486. 3
- 42558919487. 4

Question Number : 109 Question Id : 4255895014 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following gates do not give output 1 when both the inputs are 0-

- A. NAND gate
- B. NOR gate
- C. X-OR gate
- D. X-NOR gate

Choose the correct answer from the options given below:

- 1. A, B Only
- 2. B, C Only
- 3. C, D Only
- 4. C Only

Options :

42558919488. 1

42558919489. 2

42558919490. 3

42558919491. 4

Question Number : 109 Question Id : 4255895014 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following gates do not give output 1 when both the inputs are 0-

- A. NAND gate
- B. NOR gate
- C. X-OR gate
- D. X-NOR gate

Choose the correct answer from the options given below:

- 1. A, B Only
- 2. B, C Only
- 3. C, D Only
- 4. C Only

Options :

42558919488. 1

42558919489. 2

42558919490. 3

42558919491. 4

Question Number : 110 Question Id : 4255895015 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements for XML (Extensible Markup Language) :

- A. The number of tags decreases and users can define their own tags.
- B. Its is used for Presentation.
- C. It is case sensitive.
- D. It is dynamic.

Which of the above statements are true ?

- 1. B, C, D Only
- 2. A, B, D Only
- 3. A, C, D Only
- 4. B, D Only

Options :

- 42558919492. 1
- 42558919493. 2
- 42558919494. 3
- 42558919495. 4

Question Number : 110 Question Id : 4255895015 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements for XML (Extensible Markup Language) :

- A. The number of tags decreases and users can define their own tags.
- B. Its is used for Presentation.
- C. It is case sensitive.
- D. It is dynamic.

Which of the above statements are true ?

- 1. B, C, D Only
- 2. A, B, D Only
- 3. A, C, D Only
- 4. B, D Only

Options :

- 42558919492. 1
- 42558919493. 2
- 42558919494. 3
- 42558919495. 4

Question Number : 111 Question Id : 4255895016 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Only legal pointer operations:

- A.  $\text{pointer} + \text{number} \rightarrow \text{pointer}$
- B.  $\text{pointer} - \text{number} \rightarrow \text{number}$
- C.  $\text{pointer} + \text{pointer} \rightarrow \text{pointer}$
- D.  $\text{pointer} - \text{pointer} \rightarrow \text{pointer}$
- E.  $\text{pointer} - \text{pointer} \rightarrow \text{number}$

Choose the most appropriate answer from the options given below:

- 1. A, B, C Only
- 2. A, B, D Only
- 3. A, B Only
- 4. A, E Only

Options :

- 42558919496. 1
- 42558919497. 2
- 42558919498. 3
- 42558919499. 4

Question Number : 111 Question Id : 4255895016 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Only legal pointer operations:

- A.  $\text{pointer} + \text{number} \rightarrow \text{pointer}$
- B.  $\text{pointer} - \text{number} \rightarrow \text{number}$
- C.  $\text{pointer} + \text{pointer} \rightarrow \text{pointer}$
- D.  $\text{pointer} - \text{pointer} \rightarrow \text{pointer}$
- E.  $\text{pointer} - \text{pointer} \rightarrow \text{number}$

Choose the most appropriate answer from the options given below:

- 1. A, B, C Only
- 2. A, B, D Only
- 3. A, B Only
- 4. A, E Only

Options :

- 42558919496. 1
- 42558919497. 2
- 42558919498. 3
- 42558919499. 4

Question Number : 112 Question Id : 4255895017 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Once the process is allocated CPU and executing which of the following events could not occur?

- A. The process could issue an I/O request and then be placed in the Ready Queue
- B. The process could create new subprocesses & wait for the termination of the subprocesses
- C. The time slice of the process expires and it may join the waiting queue
- D. The process is forcibly removed from the CPU and is put in the Waiting queue due to arrival of an interrupt

Choose the correct answer from the options given below:

- 1. B Only
- 2. D Only
- 3. A and C Only
- 4. A, C and D Only

Options :

- 42558919500. 1
- 42558919501. 2
- 42558919502. 3
- 42558919503. 4

Question Number : 112 Question Id : 4255895017 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Once the process is allocated CPU and executing which of the following events could not occur?

- A. The process could issue an I/O request and then be placed in the Ready Queue
- B. The process could create new subprocesses & wait for the termination of the subprocesses
- C. The time slice of the process expires and it may join the waiting queue
- D. The process is forcibly removed from the CPU and is put in the Waiting queue due to arrival of an interrupt

Choose the correct answer from the options given below:

- 1. B Only
- 2. D Only
- 3. A and C Only
- 4. A, C and D Only

Options :

- 42558919500. 1
- 42558919501. 2
- 42558919502. 3
- 42558919503. 4

Question Number : 113 Question Id : 4255895018 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) from the followings with respect to Spinlock Semaphores

- A. The name refers to busy waiting semaphores.
- B. They are not useful when the locks are to be held for a short duration of time.
- C. It may require multiple context switches when a process waits on a lock.
- D. They are often employed on Uniprocessor systems.

Choose the correct answer from the options given below:

- 1. A Only
- 2. D Only
- 3. B, D Only
- 4. A, C and D Only

Options :

- 42558919504. 1
- 42558919505. 2
- 42558919506. 3
- 42558919507. 4

Question Number : 113 Question Id : 4255895018 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) from the followings with respect to Spinlock Semaphores

- A. The name refers to busy waiting semaphores.
- B. They are not useful when the locks are to be held for a short duration of time.
- C. It may require multiple context switches when a process waits on a lock.
- D. They are often employed on Uniprocessor systems.

Choose the correct answer from the options given below:

- 1. A Only
- 2. D Only
- 3. B, D Only
- 4. A, C and D Only

Options :

- 42558919504. 1
- 42558919505. 2
- 42558919506. 3
- 42558919507. 4

Question Number : 114 Question Id : 4255895019 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

**Which of the following cohesions are better than the Procedural Cohesion**

- A. Functional Cohesion
- B. Sequential Cohesion
- C. Temporal Cohesion
- D. Communicational Cohesion
- E. Logical Cohesion

**Choose the correct answer from the options given below:**

1. A and D Only
2. A, B and D Only
3. C, D and E Only
4. A, D and E Only

**Options :**

- 42558919508. 1
- 42558919509. 2
- 42558919510. 3
- 42558919511. 4

Question Number : 114 Question Id : 4255895019 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

**Which of the following cohesions are better than the Procedural Cohesion**

- A. Functional Cohesion
- B. Sequential Cohesion
- C. Temporal Cohesion
- D. Communicational Cohesion
- E. Logical Cohesion

**Choose the correct answer from the options given below:**

1. A and D Only
2. A, B and D Only
3. C, D and E Only
4. A, D and E Only

**Options :**

- 42558919508. 1
- 42558919509. 2
- 42558919510. 3
- 42558919511. 4

Question Number : 115 Question Id : 4255895020 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Which of the followings belongs to MaCall's quality factors?**

- A. Maintainability
- B. Usability
- C. Integrity
- D. Functionality

**Choose the correct answer from the options given below:**

1. A and D Only
2. A, B and D Only
3. C and D Only
4. A, B and C Only

**Options :**

- 42558919512. 1
- 42558919513. 2
- 42558919514. 3
- 42558919515. 4

Question Number : 115 Question Id : 4255895020 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Which of the followings belongs to MaCall's quality factors?**

- A. Maintainability
- B. Usability
- C. Integrity
- D. Functionality

**Choose the correct answer from the options given below:**

1. A and D Only
2. A, B and D Only
3. C and D Only
4. A, B and C Only

**Options :**

- 42558919512. 1
- 42558919513. 2
- 42558919514. 3
- 42558919515. 4

Question Number : 116 Question Id : 4255895021 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Which of the following algorithms use Greedy strategy?**

- A. Dijkstra's algorithm
- B. Kruskal's algorithm
- C. Huffman coding
- D. Bellman-Ford algorithm

**Choose the correct answer from the options given below:**

1. A, B and D Only
2. A, B and C Only
3. C and D Only
4. A and D Only

**Options :**

42558919516. 1

42558919517. 2

42558919518. 3

42558919519. 4

Question Number : 116 Question Id : 4255895021 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Which of the following algorithms use Greedy strategy?**

- A. Dijkstra's algorithm
- B. Kruskal's algorithm
- C. Huffman coding
- D. Bellman-Ford algorithm

**Choose the correct answer from the options given below:**

1. A, B and D Only
2. A, B and C Only
3. C and D Only
4. A and D Only

**Options :**

42558919516. 1

42558919517. 2

42558919518. 3

42558919519. 4

Question Number : 117 Question Id : 4255895022 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

**Which of the following trees are height balanced?**

- A. Binary Search Tree
- B. AVL Tree
- C. Red-Black Tree
- D. B Tree

**Choose the correct answer from the options given below:**

1. A and D Only
2. A, B and D Only
3. C and D Only
4. B and C Only

**Options :**

- 42558919520. 1
- 42558919521. 2
- 42558919522. 3
- 42558919523. 4

Question Number : 117 Question Id : 4255895022 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

**Which of the following trees are height balanced?**

- A. Binary Search Tree
- B. AVL Tree
- C. Red-Black Tree
- D. B Tree

**Choose the correct answer from the options given below:**

1. A and D Only
2. A, B and D Only
3. C and D Only
4. B and C Only

**Options :**

- 42558919520. 1
- 42558919521. 2
- 42558919522. 3
- 42558919523. 4

Question Number : 118 Question Id : 4255895023 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are controlled-access protocols

- A. Reservation
- B. Polling
- C. TDMA
- D. Token Passing
- E. CSMA/CA

Choose the correct answer from the options given below:

1. A and D Only
2. A, B and D Only
3. C, D and E Only
4. A, D and E Only

**Options :**

- 42558919524. 1
- 42558919525. 2
- 42558919526. 3
- 42558919527. 4

Question Number : 118 Question Id : 4255895023 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are controlled-access protocols

- A. Reservation
- B. Polling
- C. TDMA
- D. Token Passing
- E. CSMA/CA

Choose the correct answer from the options given below:

1. A and D Only
2. A, B and D Only
3. C, D and E Only
4. A, D and E Only

**Options :**

- 42558919524. 1
- 42558919525. 2
- 42558919526. 3
- 42558919527. 4

Question Number : 119 Question Id : 4255895024 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Which of the following are examples of data encoding schemes?**

- A. Non-Return to Zero (NRZ)
- B. Manchester Encoding
- C. Amplitude Modulation
- D. Hamming code
- E. Bipolar AMI

**Choose the correct answer from the options given below:**

1. A, C and D Only
2. A, B and D Only
3. C, D and E Only
4. A, B and E Only

**Options :**

- 42558919528. 1
- 42558919529. 2
- 42558919530. 3
- 42558919531. 4

Question Number : 119 Question Id : 4255895024 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Which of the following are examples of data encoding schemes?**

- A. Non-Return to Zero (NRZ)
- B. Manchester Encoding
- C. Amplitude Modulation
- D. Hamming code
- E. Bipolar AMI

**Choose the correct answer from the options given below:**

1. A, C and D Only
2. A, B and D Only
3. C, D and E Only
4. A, B and E Only

**Options :**

- 42558919528. 1
- 42558919529. 2
- 42558919530. 3
- 42558919531. 4

Question Number : 120 Question Id : 4255895025 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding Agent systems

- A. Agent system comprises of an agent and an environment on which it acts**
- B. The controller part of an agent receives percepts from its body and sends commands to the environment**
- C. Agents act in the world through actuators which are non-noisy and always reliable.**
- D. The actuators of an agent convert stimuli into percepts**

Choose the correct answer from the options given below:

- 1. A, B Only
- 2. B, D Only
- 3. C, D Only
- 4. B, C, D Only

Options :

- 42558919532. 1
- 42558919533. 2
- 42558919534. 3
- 42558919535. 4

Question Number : 120 Question Id : 4255895025 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding Agent systems

- A. Agent system comprises of an agent and an environment on which it acts**
- B. The controller part of an agent receives percepts from its body and sends commands to the environment**
- C. Agents act in the world through actuators which are non-noisy and always reliable.**
- D. The actuators of an agent convert stimuli into percepts**

Choose the correct answer from the options given below:

- 1. A, B Only
- 2. B, D Only
- 3. C, D Only
- 4. B, C, D Only

Options :

- 42558919532. 1
- 42558919533. 2
- 42558919534. 3
- 42558919535. 4

Question Number : 121 Question Id : 4255895026 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding STRIPS representation of a Planning problem

- A. STRIPS is a Feature-centric representation
- B. The features describing state of the world are divided into Primitive and Derived
- C. The STRIPS representation of the action comprises of Precondition and Effect
- D. STRIPS can directly define conditional effects.

Choose the correct answer from the options given below:

- 1. A, C Only
- 2. B, C Only
- 3. A, D Only
- 4. B, C, D Only

Options :

- 42558919536. 1
- 42558919537. 2
- 42558919538. 3
- 42558919539. 4

Question Number : 121 Question Id : 4255895026 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding STRIPS representation of a Planning problem

- A. STRIPS is a Feature-centric representation
- B. The features describing state of the world are divided into Primitive and Derived
- C. The STRIPS representation of the action comprises of Precondition and Effect
- D. STRIPS can directly define conditional effects.

Choose the correct answer from the options given below:

- 1. A, C Only
- 2. B, C Only
- 3. A, D Only
- 4. B, C, D Only

Options :

- 42558919536. 1
- 42558919537. 2
- 42558919538. 3
- 42558919539. 4

Question Number : 122 Question Id : 4255895027 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following Grammars is/are only Context Free?

<b>A</b>	$S \rightarrow Ab$ $aS \rightarrow aA$ $A \rightarrow a$	<b>B</b>	$S \rightarrow Ab$ $A \rightarrow Sa$ $A \rightarrow a$
<b>C</b>	$S \rightarrow AS$ $S \rightarrow aA$ $A \rightarrow a$	<b>D</b>	$S \rightarrow Ab$ $S \rightarrow aA$ $A \rightarrow a$
<b>E</b>	$S \rightarrow Sb$ $A \rightarrow Aa$ $A \rightarrow \epsilon$		

Choose the correct answer from the options given below:

1. A, B Only
2. C, D Only
3. C, E Only
4. A, B, D, E Only

Options :

42558919540. 1  
42558919541. 2  
42558919542. 3  
42558919543. 4

Question Number : 122 Question Id : 4255895027 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following Grammars is/are only Context Free?

<b>A</b>	$S \rightarrow Ab$ $aS \rightarrow aA$ $A \rightarrow a$	<b>B</b>	$S \rightarrow Ab$ $A \rightarrow Sa$ $A \rightarrow a$
<b>C</b>	$S \rightarrow AS$ $S \rightarrow aA$ $A \rightarrow a$	<b>D</b>	$S \rightarrow Ab$ $S \rightarrow aA$ $A \rightarrow a$
<b>E</b>	$S \rightarrow Sb$ $A \rightarrow Aa$ $A \rightarrow \epsilon$		

Choose the correct answer from the options given below:

1. A, B Only
2. C, D Only
3. C, E Only
4. A, B, D, E Only

Options :

42558919540. 1  
42558919541. 2  
42558919542. 3  
42558919543. 4

Question Number : 123 Question Id : 4255895028 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is/are TRUE about encryptions techniques?

- A. In symmetric key cryptography, the secrecy/protection of the key generating function must be of higher level than the decrypting function.
- B. The DES technique works by taking 64 bit chunk value and 56 bit key over a series of transformations.
- C. The Twofish symmetric block algorithm works on variable key length of upto 196 bits over a block of 128 bits.
- D. RC<sub>4</sub> is the most commonly used stream cipher that encrypts & decrypts a stream of bits/bytes instead of blocks.

Choose the correct answer from the options given below:

- 1. B, C Only
- 2. A, D Only
- 3. A, C Only
- 4. B, C and D Only

Options :

- 42558919544. 1
- 42558919545. 2
- 42558919546. 3
- 42558919547. 4

Question Number : 123 Question Id : 4255895028 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is/are TRUE about encryptions techniques?

- A. In symmetric key cryptography, the secrecy/protection of the key generating function must be of higher level than the decrypting function.
- B. The DES technique works by taking 64 bit chunk value and 56 bit key over a series of transformations.
- C. The Twofish symmetric block algorithm works on variable key length of upto 196 bits over a block of 128 bits.
- D. RC<sub>4</sub> is the most commonly used stream cipher that encrypts & decrypts a stream of bits/bytes instead of blocks.

Choose the correct answer from the options given below:

- 1. B, C Only
- 2. A, D Only
- 3. A, C Only
- 4. B, C and D Only

Options :

- 42558919544. 1
- 42558919545. 2
- 42558919546. 3
- 42558919547. 4

Question Number : 124 Question Id : 4255895029 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Considering the following statements:**

- A. Data transformation is involved in Datamining process.
- B. Online database is used in Data warehouse.
- C. Classification is a measure of accuracy.
- D. K-means clustering algorithm is based on the concept of minimizing the within-cluster variance.
- E. Pattern evaluation is a process to identify knowledge based on interestingness measure.

**Choose the correct answer from the options given below:**

- 1. B, C, E Only
- 2. B, D, E Only
- 3. A, C, E Only
- 4. A, C, D Only

**Options :**

- 42558919548. 1
- 42558919549. 2
- 42558919550. 3
- 42558919551. 4

Question Number : 124 Question Id : 4255895029 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Considering the following statements:**

- A. Data transformation is involved in Datamining process.
- B. Online database is used in Data warehouse.
- C. Classification is a measure of accuracy.
- D. K-means clustering algorithm is based on the concept of minimizing the within-cluster variance.
- E. Pattern evaluation is a process to identify knowledge based on interestingness measure.

**Choose the correct answer from the options given below:**

- 1. B, C, E Only
- 2. B, D, E Only
- 3. A, C, E Only
- 4. A, C, D Only

**Options :**

- 42558919548. 1
- 42558919549. 2
- 42558919550. 3
- 42558919551. 4

Question Number : 125 Question Id : 4255895030 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Considering the following statements:**

- A. A non-serial schedule is said to be conflict serializable, if it is conflict-equivalent to some serial schedule.
- B. A non-serial schedule is said to be view serializable if it is view-equivalent to some serial schedule.
- C. A schedule is said to be serial, if instructions of participating transactions are chronologically interleaved with each other.
- D. A conflict-serializable schedule will be view-serializable also but vice-versa may not be true.

**Choose the correct answer from the options given below:**

- 1. A, B, C, D
- 2. A, B, C Only
- 3. A, B, D Only
- 4. B, C, D Only

Options :

- 42558919552. 1
- 42558919553. 2
- 42558919554. 3
- 42558919555. 4

Question Number : 125 Question Id : 4255895030 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Considering the following statements:**

- A. A non-serial schedule is said to be conflict serializable, if it is conflict-equivalent to some serial schedule.
- B. A non-serial schedule is said to be view serializable if it is view-equivalent to some serial schedule.
- C. A schedule is said to be serial, if instructions of participating transactions are chronologically interleaved with each other.
- D. A conflict-serializable schedule will be view-serializable also but vice-versa may not be true.

**Choose the correct answer from the options given below:**

- 1. A, B, C, D
- 2. A, B, C Only
- 3. A, B, D Only
- 4. B, C, D Only

Options :

- 42558919552. 1
- 42558919553. 2
- 42558919554. 3
- 42558919555. 4

**Match List I with List II**

List I	List II
A. If the Indian team wins, then it is raining	I. Inverse
B. If the Indian team does not win, then it is not raining	II. Converse
C. If it is raining, then the Indian team wins	III. Contrapositive
D. If it is not raining, then the Indian team does not win	IV. Conditional

Choose the correct answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-III, B-I, C-II, D-IV
3. A-II, B-III, C-IV, D-I
4. A-III, B-II, C-IV, D-I

**Options :**

42558919556. 1

42558919557. 2

42558919558. 3

42558919559. 4

**Match List I with List II**

List I	List II
A. If the Indian team wins, then it is raining	I. Inverse
B. If the Indian team does not win, then it is not raining	II. Converse
C. If it is raining, then the Indian team wins	III. Contrapositive
D. If it is not raining, then the Indian team does not win	IV. Conditional

Choose the correct answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-III, B-I, C-II, D-IV
3. A-II, B-III, C-IV, D-I
4. A-III, B-II, C-IV, D-I

**Options :**

42558919556. 1

42558919557. 2

42558919558. 3

42558919559. 4

Question Number : 127 Question Id : 4255895032 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Type 3 Grammar	I. $V \rightarrow (V \cup \Sigma)^*$
B. Type 2 Grammar	II. $\lambda V \beta \rightarrow \lambda(V \cup \Sigma)^* \beta$ , where $(\lambda, \beta) \in (V \cup \Sigma)^*$
C. Type 1 Grammar	III. $(V \cup \Sigma)^* \rightarrow (V \cup \Sigma)^*$
D. Type 0 Grammar	IV. $V \rightarrow V \Sigma \mid \Sigma$

Choose the correct answer from the options given below:

1. **A→II, B→III, C→IV, D→I**
2. **A→III, B→I, C→IV, D→II**
3. **A→IV, B→I, C→II, D→III**
4. **A→III, B→II, C→I, D→IV**

Options :

42558919560. 1  
 42558919561. 2  
 42558919562. 3  
 42558919563. 4

Question Number : 127 Question Id : 4255895032 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Type 3 Grammar	I. $V \rightarrow (V \cup \Sigma)^*$
B. Type 2 Grammar	II. $\lambda V \beta \rightarrow \lambda(V \cup \Sigma)^* \beta$ , where $(\lambda, \beta) \in (V \cup \Sigma)^*$
C. Type 1 Grammar	III. $(V \cup \Sigma)^* \rightarrow (V \cup \Sigma)^*$
D. Type 0 Grammar	IV. $V \rightarrow V \Sigma \mid \Sigma$

Choose the correct answer from the options given below:

1. **A→II, B→III, C→IV, D→I**
2. **A→III, B→I, C→IV, D→II**
3. **A→IV, B→I, C→II, D→III**
4. **A→III, B→II, C→I, D→IV**

Options :

42558919560. 1  
 42558919561. 2  
 42558919562. 3  
 42558919563. 4

Question Number : 128 Question Id : 4255895033 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Address Space	I. Associative Mapping
B. Memory Space	II. Logical address
C. Cache Memory	III. physical address
D. Segmented Program	IV. Virtual address

Choose the correct answer from the options given below:

1. A-IV, B-III, C-I, D-II
2. A-I, B-II, C-IV, D-III
3. A-III, B-IV, C-I, D-II
4. A-II, B-IV, C-I, D-III

Options :

42558919564. 1

42558919565. 2

42558919566. 3

42558919567. 4

Question Number : 128 Question Id : 4255895033 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Address Space	I. Associative Mapping
B. Memory Space	II. Logical address
C. Cache Memory	III. physical address
D. Segmented Program	IV. Virtual address

Choose the correct answer from the options given below:

1. A-IV, B-III, C-I, D-II
2. A-I, B-II, C-IV, D-III
3. A-III, B-IV, C-I, D-II
4. A-II, B-IV, C-I, D-III

Options :

42558919564. 1

42558919565. 2

42558919566. 3

42558919567. 4

Question Number : 129 Question Id : 4255895034 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Overloading	I. Since function call is resolved during run time, the execution is Slow.
B. Early binding	II. Since function call is resolved during compilation time, the execution is much faster.
C. Overriding	III. Supports compile-time polymorphism.
D. Late Binding	IV. Supports run-time polymorphism.

Choose the correct answer from the options given below:

1. A-III, B-II, C-I, D-IV
2. A-IV, B-II, C-III, D-I
3. A-III, B-I, C-IV, D-II
4. A-IV, B-I, C-III, D-II

**Options :**

- 42558919568. 1
- 42558919569. 2
- 42558919570. 3
- 42558919571. 4

Question Number : 129 Question Id : 4255895034 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Overloading	I. Since function call is resolved during run time, the execution is Slow.
B. Early binding	II. Since function call is resolved during compilation time, the execution is much faster.
C. Overriding	III. Supports compile-time polymorphism.
D. Late Binding	IV. Supports run-time polymorphism.

Choose the correct answer from the options given below:

1. A-III, B-II, C-I, D-IV
2. A-IV, B-II, C-III, D-I
3. A-III, B-I, C-IV, D-II
4. A-IV, B-I, C-III, D-II

**Options :**

- 42558919568. 1
- 42558919569. 2
- 42558919570. 3
- 42558919571. 4

**Match List I with List II**

List I	List II
A. Oblique Projection	I. When the direction of projection is so chosen that the lines perpendicular to the plane of projection are foreshortened.
B. Cavalier Projection	II. When the direction of projection is so chosen that there is no foreshortening of lines perpendicular to the plane of projection.
C. Cabinet Projection	III. When the direction of projection is perpendicular to the plane of projection.
D. Orthographic Projection	IV. When the angle between the projectors and the plane of projection is not equal to $90^\circ$ .

Choose the correct answer from the options given below:

1. A-III, B-II, C-IV, D-I
2. A-IV, B-II, C-I, D-III
3. A-III, B-I, C-IV, D-II
4. A-IV, B-I, C-III, D-II

**Options :**

42558919572. 1  
42558919573. 2  
42558919574. 3  
42558919575. 4

**Match List I with List II**

List I	List II
A. Oblique Projection	I. When the direction of projection is so chosen that the lines perpendicular to the plane of projection are foreshortened.
B. Cavalier Projection	II. When the direction of projection is so chosen that there is no foreshortening of lines perpendicular to the plane of projection.
C. Cabinet Projection	III. When the direction of projection is perpendicular to the plane of projection.
D. Orthographic Projection	IV. When the angle between the projectors and the plane of projection is not equal to $90^\circ$ .

Choose the correct answer from the options given below:

1. A-III, B-II, C-IV, D-I
2. A-IV, B-II, C-I, D-III
3. A-III, B-I, C-IV, D-II
4. A-IV, B-I, C-III, D-II

**Options :**

- 42558919572. 1
- 42558919573. 2
- 42558919574. 3
- 42558919575. 4

Question Number : 131 Question Id : 4255895036 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Clustered Page Table	I. Generally considered inappropriate for 64 bit architectures.
B. Hierarchical Page Table	II. Has only entry for each real page (or frame) of memory.
C. Segmentation	III. Useful for Sparse address spaces.
D. Inverted Page Table	IV. Supports a user view of the system.

Choose the correct answer from the options given below:

1. A→III, B→IV, C→II, D→I
2. A→III, B→I, C→IV, D→II
3. A→II, B→III, C→I, D→IV
4. A→IV, B→III, C→II, D→I

**Options :**

- 42558919576. 1
- 42558919577. 2
- 42558919578. 3
- 42558919579. 4

Question Number : 131 Question Id : 4255895036 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Clustered Page Table	I. Generally considered inappropriate for 64 bit architectures.
B. Hierarchical Page Table	II. Has only entry for each real page (or frame) of memory.
C. Segmentation	III. Useful for Sparse address spaces.
D. Inverted Page Table	IV. Supports a user view of the system.

Choose the correct answer from the options given below:

1. A→III, B→IV, C→II, D→I
2. A→III, B→I, C→IV, D→II
3. A→II, B→III, C→I, D→IV
4. A→IV, B→III, C→II, D→I

**Options :**

- 42558919576. 1
- 42558919577. 2
- 42558919578. 3
- 42558919579. 4

Question Number : 132 Question Id : 4255895037 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. RAID Level 2	I. Block interleaved distribution parity
B. RAID Level 3	II. Also known as P+Q redundancy Scheme
C. RAID Level 5	III. Bit interleaved parity
D. RAID Level 6	IV. Also known as Memory style error correcting code organization

Choose the correct answer from the options given below:

1. A→IV, B→III, C→I, D→II
2. A→III, B→IV, C→I, D→II
3. A→I, B→III, C→IV, D→II
4. A→II, B→IV, C→I, D→III

Options :

- 42558919580. 1
- 42558919581. 2
- 42558919582. 3
- 42558919583. 4

Question Number : 132 Question Id : 4255895037 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. RAID Level 2	I. Block interleaved distribution parity
B. RAID Level 3	II. Also known as P+Q redundancy Scheme
C. RAID Level 5	III. Bit interleaved parity
D. RAID Level 6	IV. Also known as Memory style error correcting code organization

Choose the correct answer from the options given below:

1. A→IV, B→III, C→I, D→II
2. A→III, B→IV, C→I, D→II
3. A→I, B→III, C→IV, D→II
4. A→II, B→IV, C→I, D→III

Options :

- 42558919580. 1
- 42558919581. 2
- 42558919582. 3
- 42558919583. 4

Question Number : 133 Question Id : 4255895038 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I (Software Quality Characteristic)	List II (Description)
A. Reliability	I. Ability to transfer the software from one organization or hardware / software environment to another.
B. Efficiency	II. Capability of software to maintain its level of performance under stated conditions for a stated period of time.
C. Maintainability	III. Relationship between the level of performance of the software and the amount of resources used, under stated conditions.
D. Portability	IV. Effort needed to make modifications, including corrections, improvements or adaptation of software to changes in environment, requirements and functional specifications.

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

Options :

42558919584. 1

42558919585. 2

42558919586. 3

42558919587. 4

Question Number : 133 Question Id : 4255895038 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match List I with List II

List I (Software Quality Characteristic)	List II (Description)
A. Reliability	I. Ability to transfer the software from one organization or hardware / software environment to another.
B. Efficiency	II. Capability of software to maintain its level of performance under stated conditions for a stated period of time.
C. Maintainability	III. Relationship between the level of performance of the software and the amount of resources used, under stated conditions.
D. Portability	IV. Effort needed to make modifications, including corrections, improvements or adaptation of software to changes in environment, requirements and functional specifications.

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

Options :

- 42558919584. 1
- 42558919585. 2
- 42558919586. 3
- 42558919587. 4

Question Number : 134 Question Id : 4255895039 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Equivalence Partitioning	I. Measures independent paths in code
B. Boundary Value Analysis	II. Divides input into valid/invalid sets
C. Cyclomatic Complexity	III. Focuses on limits of input ranges
D. Decision Table Testing	IV. In which a number of combinations of actions are tested under varying sets of conditions.

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

Options :

- 42558919588. 1
- 42558919589. 2
- 42558919590. 3
- 42558919591. 4

Question Number : 134 Question Id : 4255895039 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Equivalence Partitioning	I. Measures independent paths in code
B. Boundary Value Analysis	II. Divides input into valid/invalid sets
C. Cyclomatic Complexity	III. Focuses on limits of input ranges
D. Decision Table Testing	IV. In which a number of combinations of actions are tested under varying sets of conditions.

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

Options :

- 42558919588. 1
- 42558919589. 2
- 42558919590. 3
- 42558919591. 4

Question Number : 135 Question Id : 4255895040 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Circular Queue	I. Print Queue
B. Priority Queue	II. CPU Scheduling
C. Double Ended Queue	III. Dijkstra algorithm
D. Simple Queue	IV. Palindrome checking

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

**Options :**

42558919592. 1

42558919593. 2

42558919594. 3

42558919595. 4

Question Number : 135 Question Id : 4255895040 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Circular Queue	I. Print Queue
B. Priority Queue	II. CPU Scheduling
C. Double Ended Queue	III. Dijkstra algorithm
D. Simple Queue	IV. Palindrome checking

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

Options :

- 42558919592. 1
- 42558919593. 2
- 42558919594. 3
- 42558919595. 4

Question Number : 136 Question Id : 4255895041 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I (Hashing Collison Handling Method)	List II (Strategy)
A. Chaining	I. Check next slot
B. Linear Probing	II. Use second hash function
C. Quadratic Probing	III. Linked list at index
D. Double Hashing	IV. Skip slots using quadratic step

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-I, C-IV, D-II
4. A-IV, B-II, C-I, D-III

Options :

- 42558919596. 1
- 42558919597. 2
- 42558919598. 3
- 42558919599. 4

Question Number : 136 Question Id : 4255895041 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I (Hashing Collison Handling Method)	List II (Strategy)
A. Chaining	I. Check next slot
B. Linear Probing	II. Use second hash function
C. Quadratic Probing	III. Linked list at index
D. Double Hashing	IV. Skip slots using quadratic step

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-I, C-IV, D-II
4. A-IV, B-II, C-I, D-III

**Options :**

42558919596. 1

42558919597. 2

42558919598. 3

42558919599. 4

Question Number : 137 Question Id : 4255895042 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Count to infinity problem	I. Mobile Adhoc Networks
B. IEEE 802.16	II. Distance vector routing
C. IEEE 802.15	III. WiMAX
D. AODV protocol	IV. Bluetooth

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-II, B-IV, C-III, D-I
4. A-IV, B-III, C-I, D-II

Options :

- 42558919600. 1
- 42558919601. 2
- 42558919602. 3
- 42558919603. 4

Question Number : 137 Question Id : 4255895042 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Count to infinity problem	I. Mobile Adhoc Networks
B. IEEE 802.16	II. Distance vector routing
C. IEEE 802.15	III. WiMAX
D. AODV protocol	IV. Bluetooth

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-II, B-IV, C-III, D-I
4. A-IV, B-III, C-I, D-II

Options :

- 42558919600. 1
- 42558919601. 2
- 42558919602. 3
- 42558919603. 4

Question Number : 138 Question Id : 4255895043 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Digital Signature	I. Asymmetric encryption algorithm.
B. Hash Function	II. Confirms authenticity and integrity.
C. AES	III. Produces a fixed-size digest.
D. RSA	IV. Symmetric encryption algorithm.

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

**Options :**

42558919604. 1

42558919605. 2

42558919606. 3

42558919607. 4

Question Number : 138 Question Id : 4255895043 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I	List II
A. Digital Signature	I. Asymmetric encryption algorithm.
B. Hash Function	II. Confirms authenticity and integrity.
C. AES	III. Produces a fixed-size digest.
D. RSA	IV. Symmetric encryption algorithm.

Choose the correct answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-III, C-IV, D-I
3. A-III, B-II, C-I, D-IV
4. A-IV, B-II, C-I, D-III

Options :

42558919604. 1  
 42558919605. 2  
 42558919606. 3  
 42558919607. 4

Question Number : 139 Question Id : 4255895044 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I (Operations on Fuzzy Sets)	List II (Description)
A. Intersection	I. $\mu_{\bar{A}}(x) + \mu_{\bar{B}}(x) - \mu_{\bar{A}}(x) \cdot \mu_{\bar{B}}(x)$
B. Bounded Sum	II. $\max(0, \mu_{\bar{A}}(x) - \mu_{\bar{B}}(x))$
C. Bounded Difference	III. $\min(1, \mu_{\bar{A}}(x) + \mu_{\bar{B}}(x))$
D. Algebraic Sum	IV. $\min(\mu_{\bar{A}}(x), \mu_{\bar{B}}(x))$

Choose the correct answer from the options given below:

1. A→III, B→I, C→II, D→IV
2. A→III, B→II, C→IV, D→I
3. A→IV, B→III, C→II, D→I
4. A→II, B→I, C→III, D→IV

Options :

42558919608. 1  
 42558919609. 2  
 42558919610. 3  
 42558919611. 4

Question Number : 139 Question Id : 4255895044 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I (Operations on Fuzzy Sets)	List II (Description)
A. Intersection	I. $\mu_{\bar{A}}(x) + \mu_{\bar{B}}(x) - \mu_{\bar{A}}(x) \cdot \mu_{\bar{B}}(x)$
B. Bounded Sum	II. $\max(0, \mu_{\bar{A}}(x) - \mu_{\bar{B}}(x))$
C. Bounded Difference	III. $\min(1, \mu_{\bar{A}}(x) + \mu_{\bar{B}}(x))$
D. Algebraic Sum	IV. $\min(\mu_{\bar{A}}(x), \mu_{\bar{B}}(x))$

Choose the correct answer from the options given below:

1. A→III, B→I, C→II, D→IV
2. A→III, B→II, C→IV, D→I
3. A→IV, B→III, C→II, D→I
4. A→II, B→I, C→III, D→IV

Options :

42558919608. 1

42558919609. 2

42558919610. 3

42558919611. 4

Question Number : 140 Question Id : 4255895045 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I (GA termination criteria)	List II (description)
A. Worst Individual	I. At least half of the individual will be better than or equal to convergence value
B. Best Individual	II. Guarantees that virtually all individuals in the population will be within a particular fitness range
C. Sum of Fitness	III. Guarantees that the entire population to be of a minimum standard
D. Median Fitness	IV. Faster search Convergence, guaranteeing at least one best solution

Choose the correct answer from the options given below:

1. A→III, B→IV, C→II, D→I
2. A→IV, B→III, C→I, D→II
3. A→II, B→I, C→III, D→IV
4. A→II, B→III, C→IV, D→I

**Options :**

- 42558919612. 1
- 42558919613. 2
- 42558919614. 3
- 42558919615. 4

Question Number : 140 Question Id : 4255895045 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

**Match List I with List II**

List I (GA termination criteria)	List II (description)
A. Worst Individual	I. At least half of the individual will be better than or equal to convergence value
B. Best Individual	II. Guarantees that virtually all individuals in the population will be within a particular fitness range
C. Sum of Fitness	III. Guarantees that the entire population to be of a minimum standard
D. Median Fitness	IV. Faster search Convergence, guaranteeing at least one best solution

Choose the correct answer from the options given below:

1. A→III, B→IV, C→II, D→I
2. A→IV, B→III, C→I, D→II
3. A→II, B→I, C→III, D→IV
4. A→II, B→III, C→IV, D→I

**Options :**

- 42558919612. 1
- 42558919613. 2
- 42558919614. 3
- 42558919615. 4

Sub-Section Number :

2

Sub-Section Id :

425589203

Question Shuffling Allowed :

No

Question Id : 4255895046 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
 Question Pattern Type : NonMatrix  
 Question Numbers : (141 to 145)

Consider the following Three Address code sample for solving the questions :

```

100 : t1 = y+2
101 : initial = x/t1
102 : limit = 10
103 : if i > j goto 105
104 : goto 111
105 : if num > b goto 107
106 : goto 111
107 : num = limit-1
108 : b = y+2
109 : i = i - num
110 : goto 103
111 : j = i - num
112 : k = j+b
    
```

**Sub questions**

Question Number : 141 Question Id : 4255895047 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
 Correct Marks : 2 Wrong Marks : 0

Which of the following is the correct High level code for the given TAC in the passage

<p><b>1</b></p> <pre> t1 = y+2 init = x/t1; limit=10; if(i&gt;j    num&gt;b) {     num = limit-1;     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>	<p><b>2</b></p> <pre> init = x/(y+2); limit=10; while(i&gt;j    num&gt;b) {     num = limit-1;     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>
<p><b>3</b></p> <pre> init = x/(y+2); limit=10; if(i&gt;j) {     While( num&gt;b)         num = limit-1; } else {     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>	<p><b>4</b></p> <pre> init = x/(y+2); limit=10; while(i&gt;j &amp;&amp; num&gt;b) {     num = limit-1;     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>

**Options :**

- 42558919616. 1
- 42558919617. 2
- 42558919618. 3
- 42558919619. 4

Question Number : 142 Question Id : 4255895048 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What are the various LEADERS (leading statements) for the TAC given in the passage?

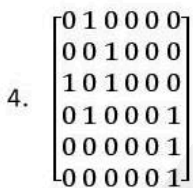
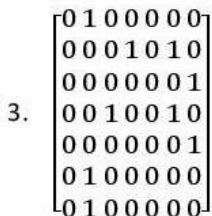
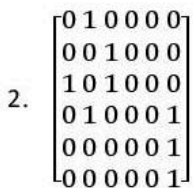
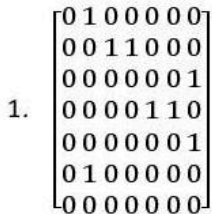
1. 100, 102, 103, 104, 105, 107, 110
2. 100, 103, 105, 107, 111, 112
3. 100, 103, 105, 106, 107, 111
4. 100, 103, 104, 105, 106, 107, 111

Options :

- 42558919620. 1
- 42558919621. 2
- 42558919622. 3
- 42558919623. 4

Question Number : 143 Question Id : 4255895049 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the followings is the correct Flow graph for the TAC given in the passage?



Options :

- 42558919624. 1
- 42558919625. 2
- 42558919626. 3
- 42558919627. 4

Question Number : 144 Question Id : 4255895050 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What all blocks does Block 3 & Block 5 dominate in the Flow graph for the TAC given in the passage?

1. Block 3 : 3 ; Block 5 : 5
2. Block 3 : 3, 4, 5, 6 ; Block 5 : 5, 6
3. Block 3 : 3, 7 ; Block 5 : 5, 7
4. Block 3 : 3, 4, 7 ; Block 5 : 5, 6, 7

Options :

- 42558919628. 1
- 42558919629. 2
- 42558919630. 3
- 42558919631. 4

Question Number : 145 Question Id : 4255895051 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is the Optimized version for the given TAC in the passage

<p><b>1</b></p> <p>100 : t1 = y+2            101 : initial = x/t1            102 : limit = 10            103 : if i &gt; j goto 105            104 : goto 111            105 : if num &gt; b goto 107            106 : goto 111            107 : b = y+2            108 : i = i - limit-1            109 : goto 103            110 : k = i+b</p>	<p><b>2</b></p> <p>100 : t1 = y+2            101 : initial = x/t1            102 : limit = 10            103 : if i &gt; j goto 105            104 : if num &lt; b goto 111            105 : num = limit-1            106 : b = t1            107 : i = i - num            108 : goto 103            109 : k = i+b</p>
<p><b>3</b></p> <p>100 : t1 = y+2            101 : initial = x/t1            102 : limit = 10            103 : num = 9            104 : if i &gt; j goto 105            105 : goto 111            106 : if num &gt; b goto 107            107 : goto 111            108 : i = i - num            109 : goto 103            110 : j = i - num            111 : k = j+t1</p>	<p><b>4</b></p> <p>100 : t1 = y+2            101 : initial = x/t1            102 : limit = 10            103 : if i &gt; j goto 105            104 : goto 111            105 : if num &lt; b goto 111            106 : num = limit-1            107 : b = t1            108 : i = i - num            109 : goto 103            110 : k = i+b</p>

Options :

- 42558919632. 1
- 42558919633. 2
- 42558919634. 3
- 42558919635. 4

Question Id : 4255895046 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
 Question Pattern Type : NonMatrix  
 Question Numbers : (141 to 145)

Consider the following Three Address code sample for solving the questions :

```

100 : t1 = y+2
101 : initial = x/t1
102 : limit = 10
103 : if i > j goto 105
104 : goto 111
105 : if num > b goto 107
106 : goto 111
107 : num = limit-1
108 : b = y+2
109 : i = i - num
110 : goto 103
111 : j = i - num
112 : k = j+b
    
```

**Sub questions**

Question Number : 141 Question Id : 4255895047 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
 Correct Marks : 2 Wrong Marks : 0

Which of the following is the correct High level code for the given TAC in the passage

<p><b>1</b></p> <pre> t1 = y+2 init = x/t1; limit=10; if(i&gt;j    num&gt;b) {     num = limit-1;     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>	<p><b>2</b></p> <pre> init = x/(y+2); limit=10; while(i&gt;j    num&gt;b) {     num = limit-1;     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>
<p><b>3</b></p> <pre> init = x/(y+2); limit=10; if(i&gt;j) {     While( num&gt;b)         num = limit-1; } else {     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>	<p><b>4</b></p> <pre> init = x/(y+2); limit=10; while(i&gt;j &amp;&amp; num&gt;b) {     num = limit-1;     b = y + 2;     i = i - num; } j = i - num; k = k+b;                     </pre>

**Options :**

- 42558919616. 1
- 42558919617. 2
- 42558919618. 3
- 42558919619. 4

Question Number : 142 Question Id : 4255895048 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What are the various LEADERS (leading statements) for the TAC given in the passage?

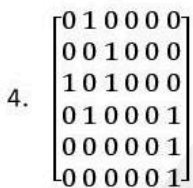
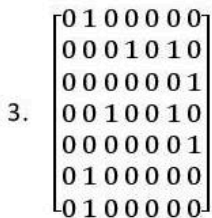
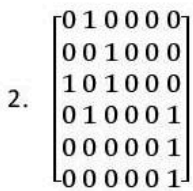
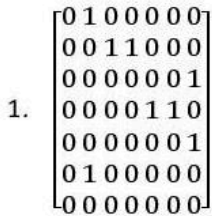
1. 100, 102, 103, 104, 105, 107, 110
2. 100, 103, 105, 107, 111, 112
3. 100, 103, 105, 106, 107, 111
4. 100, 103, 104, 105, 106, 107, 111

Options :

- 42558919620. 1
- 42558919621. 2
- 42558919622. 3
- 42558919623. 4

Question Number : 143 Question Id : 4255895049 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

Which of the followings is the correct Flow graph for the TAC given in the passage?



Options :

- 42558919624. 1
- 42558919625. 2
- 42558919626. 3
- 42558919627. 4

Question Number : 144 Question Id : 4255895050 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0

What all blocks does Block 3 & Block 5 dominate in the Flow graph for the TAC given in the passage?

1. Block 3 : 3 ; Block 5 : 5
2. Block 3 : 3, 4, 5, 6 ; Block 5 : 5, 6
3. Block 3 : 3, 7 ; Block 5 : 5, 7
4. Block 3 : 3, 4, 7 ; Block 5 : 5, 6, 7

**Options :**

- 42558919628. 1
- 42558919629. 2
- 42558919630. 3
- 42558919631. 4

**Question Number : 145 Question Id : 4255895051 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No**

**Correct Marks : 2 Wrong Marks : 0**

Which of the following is the Optimized version for the given TAC in the passage

<b>1</b>	100 : t1 = y+2 101 : initial = x/t1 102 : limit = 10 103 : if i > j goto 105 104 : goto 111 105 : if num > b goto 107 106 : goto 111 107 : b = y+2 108 : i = i - limit-1 109 : goto 103 110 : k = i+b	<b>2</b>	100 : t1 = y+2 101 : initial = x/t1 102 : limit = 10 103 : if i > j goto 105 104 : if num < b goto 111 105 : num = limit-1 106 : b = t1 107 : i = i - num 108 : goto 103 109 : k = i+b
<b>3</b>	100 : t1 = y+2 101 : initial = x/t1 102 : limit = 10 103 : num = 9 104 : if i > j goto 105 105 : goto 111 106 : if num > b goto 107 107 : goto 111 108 : i = i - num 109 : goto 103 110 : j = i - num 111 : k = j+t1	<b>4</b>	100 : t1 = y+2 101 : initial = x/t1 102 : limit = 10 103 : if i > j goto 105 104 : goto 111 105 : if num < b goto 111 106 : num = limit-1 107 : b = t1 108 : i = i - num 109 : goto 103 110 : k = i+b

**Options :**

- 42558919632. 1
- 42558919633. 2
- 42558919634. 3
- 42558919635. 4

**Sub-Section Number :**

3

**Sub-Section Id :**

425589204

**Question Shuffling Allowed :**

No

Question Id : 4255895052 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
Question Pattern Type : NonMatrix  
Question Numbers : (146 to 150)

Consider the following disc Queue with requests for I/O to block on cylinders :

45, 81, 185, 33, 175, 99, 150, 77

(Consider that the head starts from location 58)

Sub questions

Question Number : 146 Question Id : 4255895053 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What shall be the total head movement of cylinders if the FCFS disc scheduling method is used ?

- (1) 536
- (2) 594
- (3) 647
- (4) 700

Options :

42558919636. 1  
42558919637. 2  
42558919638. 3  
42558919639. 4

Question Number : 147 Question Id : 4255895054 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What will be the total head movement of cylinders for the SSTF disc Scheduling technique ?

- (1) 160
- (2) 124
- (3) 177
- (4) 240

Options :

42558919640. 1  
42558919641. 2  
42558919642. 3  
42558919643. 4

Question Number : 148 Question Id : 4255895055 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What shall be the 2<sup>nd</sup> request being processed by SCAN (LEFT) disc Scheduling technique for the already given request queue ?

1. 81
2. 45
3. 33
4. 175

Options :

42558919644. 1  
42558919645. 2  
42558919646. 3  
42558919647. 4

Question Number : 149 Question Id : 4255895056 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What shall be the total head movement of cylinders for the C-SCAN disc Scheduling technique if the head starts moving in the right direction from initial position ?

- (1) 327
- (2) 307
- (3) 525
- (4) 385

Options :

42558919648. 1  
42558919649. 2  
42558919650. 3  
42558919651. 4

**Question Number : 150 Question Id : 4255895057 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0**

What shall be the 2<sup>nd</sup> request being processed by C-LOOK (Right) disc Scheduling technique for the already given request queue ?

- (1) 81
- (2) 45
- (3) 77
- (4) 33

**Options :**

42558919652. 1  
42558919653. 2  
42558919654. 3  
42558919655. 4



Question Id : 4255895052 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No  
Question Pattern Type : NonMatrix  
Question Numbers : (146 to 150)

Consider the following disc Queue with requests for I/O to block on cylinders :

45, 81, 185, 33, 175, 99, 150, 77

(Consider that the head starts from location 58)

Sub questions

Question Number : 146 Question Id : 4255895053 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What shall be the total head movement of cylinders if the FCFS disc scheduling method is used ?

- (1) 536
- (2) 594
- (3) 647
- (4) 700

Options :

42558919636. 1  
42558919637. 2  
42558919638. 3  
42558919639. 4

Question Number : 147 Question Id : 4255895054 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What will be the total head movement of cylinders for the SSTF disc Scheduling technique ?

- (1) 160
- (2) 124
- (3) 177
- (4) 240

Options :

42558919640. 1  
42558919641. 2  
42558919642. 3  
42558919643. 4

Question Number : 148 Question Id : 4255895055 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What shall be the 2<sup>nd</sup> request being processed by SCAN (LEFT) disc Scheduling technique for the already given request queue ?

1. 81
2. 45
3. 33
4. 175

Options :

42558919644. 1  
42558919645. 2  
42558919646. 3  
42558919647. 4

Question Number : 149 Question Id : 4255895056 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No  
Correct Marks : 2 Wrong Marks : 0

What shall be the total head movement of cylinders for the C-SCAN disc Scheduling technique if the head starts moving in the right direction from initial position ?

- (1) 327
- (2) 307
- (3) 525
- (4) 385

Options :

42558919648. 1  
42558919649. 2  
42558919650. 3  
42558919651. 4

**Question Number : 150 Question Id : 4255895057 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Correct Marks : 2 Wrong Marks : 0**

What shall be the 2<sup>nd</sup> request being processed by C-LOOK (Right) disc Scheduling technique for the already given request queue ?

- (1) 81
- (2) 45
- (3) 77
- (4) 33

**Options :**

42558919652. 1  
42558919653. 2  
42558919654. 3  
42558919655. 4

