

# NTA UGC NET AUG 2024 21st Aug to 04th Sep 2024

|                |                                      |
|----------------|--------------------------------------|
| Application No |                                      |
| Candidate Name |                                      |
| Roll No.       |                                      |
| Test Date      | 23/08/2024                           |
| Test Time      | 9:00 AM - 12:00 PM                   |
| Subject        | 87 Computer Science and Applications |

## Section : General Paper

### Comprehension:

निम्न तालिका में सात भिन्न-भिन्न शहरों A-G से कला, विज्ञान व वाणिज्य की तीन स्नातकीय शाखाओं में उत्तीर्ण विद्यार्थियों का अनुपात और विद्यार्थियों के बीच तीन शाखाओं हेतु पुरुषों (M) का महिलाओं (F) के साथ का अनुपात दर्शाया गया है। तालिका में प्रदत्त डाटा के आधार पर आगे पूछे गए प्रश्नों के उत्तर दीजिए :

#### स्नातकीय विद्यार्थियों का शहर-वार विवरण

| शहर | उत्तीर्ण विद्यार्थियों का शहर-वार विवरण |         |         |         |
|-----|-----------------------------------------|---------|---------|---------|
|     | कला : विज्ञान : वाणिज्य                 | कला     | विज्ञान | वाणिज्य |
|     |                                         | M : F   | M : F   | M : F   |
| A   | 2 : 4 : 5                               | 31 : 14 | 23 : 27 | 11 : 7  |
| B   | 7 : 2 : 4                               | 37 : 33 | 43 : 32 | 29 : 21 |
| C   | 1 : 4 : 2                               | 34 : 16 | 57 : 43 | 31 : 29 |
| D   | 5 : 7 : 4                               | 17 : 13 | 51 : 33 | 23 : 17 |
| E   | 4 : 3 : 8                               | 23 : 17 | 41 : 34 | 57 : 23 |
| F   | 2 : 4 : 3                               | 47 : 28 | 11 : 7  | 16 : 11 |
| G   | 3 : 5 : 4                               | 29 : 21 | 27 : 24 | 53 : 47 |

### SubQuestion No : 1

**Q.1** शहर-F से वाणिज्य में उत्तीर्ण पुरुषों की संख्या शहर-F से वाणिज्य में उत्तीर्ण होने वाली महिलाओं की संख्या से लगभग \_\_\_\_\_ % अधिक है।

- (1) 31.25
- (2) 47.47
- (3) 45.45
- (4) 42.67

### Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723679**

Option 1 ID : **53307214317**

Option 2 ID : **53307214318**

Option 3 ID : **53307214319**

Option 4 ID : **53307214320**

Status : **Answered**

Chosen Option : **2**

**Comprehension:**

The following table shows the proportion of students passed in three different Graduation Streams, namely, Arts, Science and Commerce, from seven different cities A-G, along with the ratio of Males (M) to Females (F) for the three streams among the students. Based on the data in the table, answer the questions that follow.

City-wise details of Graduating students

| City | Proportion of passed Students |         |         |           |
|------|-------------------------------|---------|---------|-----------|
|      | Arts : Science : Commerce     | Arts    | Science | Commerece |
|      |                               | M : F   | M : F   | M : F     |
| A    | 2 : 4 : 5                     | 31 : 14 | 23 : 27 | 11 : 7    |
| B    | 7 : 2 : 4                     | 37 : 33 | 43 : 32 | 29 : 21   |
| C    | 1 : 4 : 2                     | 34 : 16 | 57 : 43 | 31 : 29   |
| D    | 5 : 7 : 4                     | 17 : 13 | 51 : 33 | 23 : 17   |
| E    | 4 : 3 : 8                     | 23 : 17 | 41 : 34 | 57 : 23   |
| F    | 2 : 4 : 3                     | 47 : 28 | 11 : 7  | 16 : 11   |
| G    | 3 : 5 : 4                     | 29 : 21 | 27 : 24 | 53 : 47   |

**SubQuestion No : 2**

**Q.2** If the number of females who passed in Arts from City-C is 768, then the number of males who passed in Commerce from City-C is approximately \_\_\_\_\_% of the number of students who passed from City-C.

- (1) 14.76
- (2) 18.24
- (3) 27.8
- (4) 32.5

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723678**

Option 1 ID : **53307214313**

Option 2 ID : **53307214314**

Option 3 ID : **53307214315**

Option 4 ID : **53307214316**

Status : **Answered**

Chosen Option : **3**

**Comprehension:**

The following table shows the proportion of students passed in three different Graduation Streams, namely, Arts, Science and Commerce, from seven different cities A-G, along with the ratio of Males (M) to Females (F) for the three streams among the students. Based on the data in the table, answer the questions that follow.

City-wise details of Graduating students

| City | Proportion of passed Students |               |                  |                    |
|------|-------------------------------|---------------|------------------|--------------------|
|      | Arts : Science : Commerce     | Arts<br>M : F | Science<br>M : F | Commerece<br>M : F |
| A    | 2 : 4 : 5                     | 31 : 14       | 23 : 27          | 11 : 7             |
| B    | 7 : 2 : 4                     | 37 : 33       | 43 : 32          | 29 : 21            |
| C    | 1 : 4 : 2                     | 34 : 16       | 57 : 43          | 31 : 29            |
| D    | 5 : 7 : 4                     | 17 : 13       | 51 : 33          | 23 : 17            |
| E    | 4 : 3 : 8                     | 23 : 17       | 41 : 34          | 57 : 23            |
| F    | 2 : 4 : 3                     | 47 : 28       | 11 : 7           | 16 : 11            |
| G    | 3 : 5 : 4                     | 29 : 21       | 27 : 24          | 53 : 47            |

**SubQuestion No : 3**

**Q.3** For City-A, if the total number of males who passed in Arts is 2480, then what is the difference between the number of students who passed in Commerce and that in Science ?

- (1) 600
- (2) 1000
- (3) 1400
- (4) 1800

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723676**

Option 1 ID : **53307214305**

Option 2 ID : **53307214306**

Option 3 ID : **53307214307**

Option 4 ID : **53307214308**

Status : **Answered**

Chosen Option : **1**

**Comprehension:**

The following table shows the proportion of students passed in three different Graduation Streams, namely, Arts, Science and Commerce, from seven different cities A-G, along with the ratio of Males (M) to Females (F) for the three streams among the students. Based on the data in the table, answer the questions that follow.

City-wise details of Graduating students

| City | Proportion of passed Students |         |         |           |
|------|-------------------------------|---------|---------|-----------|
|      | Arts : Science : Commerce     | Arts    | Science | Commerece |
|      |                               | M : F   | M : F   | M : F     |
| A    | 2 : 4 : 5                     | 31 : 14 | 23 : 27 | 11 : 7    |
| B    | 7 : 2 : 4                     | 37 : 33 | 43 : 32 | 29 : 21   |
| C    | 1 : 4 : 2                     | 34 : 16 | 57 : 43 | 31 : 29   |
| D    | 5 : 7 : 4                     | 17 : 13 | 51 : 33 | 23 : 17   |
| E    | 4 : 3 : 8                     | 23 : 17 | 41 : 34 | 57 : 23   |
| F    | 2 : 4 : 3                     | 47 : 28 | 11 : 7  | 16 : 11   |
| G    | 3 : 5 : 4                     | 29 : 21 | 27 : 24 | 53 : 47   |

**SubQuestion No : 4**

**Q.4** If the number of students who passed in Commerce from City-F is 3240, then the number of students who passed from City-F is \_\_\_\_\_% of the number of Science students who passed from City-F.

- (1) 75
- (2) 150
- (3) 180
- (4) 225

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723677**

Option 1 ID : **53307214309**

Option 2 ID : **53307214310**

Option 3 ID : **53307214311**

Option 4 ID : **53307214312**

Status : **Answered**

Chosen Option : **2**

**Comprehension:**

The following table shows the proportion of students passed in three different Graduation Streams, namely, Arts, Science and Commerce, from seven different cities A-G, along with the ratio of Males (M) to Females (F) for the three streams among the students. Based on the data in the table, answer the questions that follow.

City-wise details of Graduating students

| City | Proportion of passed Students |         |         |           |
|------|-------------------------------|---------|---------|-----------|
|      | Arts : Science : Commerce     | Arts    | Science | Commerece |
|      |                               | M : F   | M : F   | M : F     |
| A    | 2 : 4 : 5                     | 31 : 14 | 23 : 27 | 11 : 7    |
| B    | 7 : 2 : 4                     | 37 : 33 | 43 : 32 | 29 : 21   |
| C    | 1 : 4 : 2                     | 34 : 16 | 57 : 43 | 31 : 29   |
| D    | 5 : 7 : 4                     | 17 : 13 | 51 : 33 | 23 : 17   |
| E    | 4 : 3 : 8                     | 23 : 17 | 41 : 34 | 57 : 23   |
| F    | 2 : 4 : 3                     | 47 : 28 | 11 : 7  | 16 : 11   |
| G    | 3 : 5 : 4                     | 29 : 21 | 27 : 24 | 53 : 47   |

**SubQuestion No : 5**

**Q.5** If the number of males who passed in Commerce from City-G is 2544, then what is the number of students who passed in Arts from City-G ?

- (1) 3600
- (2) 4200
- (3) 4800
- (4) 3400

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723675**

Option 1 ID : **53307214301**

Option 2 ID : **53307214302**

Option 3 ID : **53307214303**

Option 4 ID : **53307214304**

Status : **Answered**

Chosen Option : **3**

**Q.6** निम्नलिखित में से किसे “एक देश, एक छात्र आई.डी.” कार्ड के रूप में जाना जाता है?

- (1) आधार कार्ड
- (2) पैन कार्ड
- (3) अपार (एपीपीएआर) कार्ड
- (4) मतदाता पहचान पत्र कार्ड

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723718**

Option 1 ID : **53307214473**

Option 2 ID : **53307214474**

Option 3 ID : **53307214475**

Option 4 ID : **53307214476**

Status : **Answered**

Chosen Option : **3**

**Q.7** A person sold an item at a loss of 7%. Had he sold the item at a gain of 7.5%, he would have received Rs. 87 more than his selling price. The cost price of the item is :

- (1) Rs. 500
- (2) Rs. 550
- (3) Rs. 600
- (4) Rs. 650

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723695**

Option 1 ID : **53307214381**

Option 2 ID : **53307214382**

Option 3 ID : **53307214383**

Option 4 ID : **53307214384**

Status : **Answered**

Chosen Option : **3**

**Q.8**

सूची-I से सूची-II का मिलान कीजिए :

**सूची-I**

( अनुप्रयोग )

**सूची-II**

( संचार से संबंधित शब्द )

- |                      |                            |
|----------------------|----------------------------|
| (A) साक्षात्कार      | (I) सामूहिक संचार          |
| (B) समाचार पत्र      | (II) अन्तःवैयक्तिक संचार   |
| (C) कक्षा            | (III) अन्तर्वैयक्तिक संचार |
| (D) ध्यान (मेडिटेशन) | (IV) जन संचार              |

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723694**

Option 1 ID : **53307214377**

Option 2 ID : **53307214378**

Option 3 ID : **53307214379**

Option 4 ID : **53307214380**

Status : **Answered**

Chosen Option : **4**

Q.9

सूची-I से सूची-II का मिलान कीजिए :

| सूची-I<br>( चर का प्रकार ) | सूची-II<br>( उदाहरण ) |
|----------------------------|-----------------------|
| (A) नामिक                  | (I) संतुष्टि स्तर     |
| (B) क्रमसूचक               | (II) भार              |
| (C) अंतरावधि               | (III) नृजातीयता       |
| (D) अनुपात                 | (IV) मृत्यु का वर्ष   |

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : MCQ

Question ID : 5330723689

Option 1 ID : 53307214357

Option 2 ID : 53307214358

Option 3 ID : 53307214359

Option 4 ID : 53307214360

Status : Answered

Chosen Option : 4

Q.10

धूमकुहा के दौरान आंखों में प्रकोपन सामान्य परिघटना है। अधिकतर यह निम्न के कारण होता है :

- (A) फार्मेलडीहाइड
- (B) परआक्सी ऐसिटाइल नाइट्रेट
- (C) ओजोन
- (D) एक्रोलीन

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723713

Option 1 ID : 53307214453

Option 2 ID : 53307214454

Option 3 ID : 53307214455

Option 4 ID : 53307214456

Status : Answered

Chosen Option : 2

Q.11

राष्ट्रीय क्रेडिट रूप रेखा (एन.सी.आर.एफ.) के अनुसार डॉक्टरल उपाधि (पी.एच.डी.) के पश्चात अर्जित होने वाला क्रेडिट लेवल (स्तर) होगा :

- (1) 7
- (2) 8
- (3) 9
- (4) 10

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723719

Option 1 ID : 53307214477

Option 2 ID : 53307214478

Option 3 ID : 53307214479

Option 4 ID : 53307214480

Status : Answered

Chosen Option : 3



Q.12

सूची-I से सूची-II का मिलान कीजिए :

| सूची-I<br>( अस्तित्व रहित होने के स्वरूप ) | सूची-II<br>( निरूपण )                    |
|--------------------------------------------|------------------------------------------|
| (A) अन्योन्यभाव                            | (I) हेयर का होर्न ( खरगोश के सींग )      |
| (B) अत्यन्तभाव                             | (II) अब जार का अस्तित्व नहीं है          |
| (C) प्रागभाव                               | (III) 'यह वह नहीं है'                    |
| (D) प्रध्वंसाभाव                           | (IV) किसी वस्तु का अस्थायी तौर पर न होना |

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : MCQ

Question ID : 5330723703

Option 1 ID : 53307214413

Option 2 ID : 53307214414

Option 3 ID : 53307214415

Option 4 ID : 53307214416

Status : Answered

Chosen Option : 1

Q.13

निम्नलिखित किन विश्वविद्यालयों की स्थापना वर्ष 1916 में की गयी थी ?

- (A) उस्मानिया विश्वविद्यालय
- (B) एस.एन.डी.टी. महिला विश्वविद्यालय
- (C) मैसूर विश्वविद्यालय
- (D) पटना विश्वविद्यालय
- (E) बनारस हिन्दू विश्वविद्यालय

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : MCQ

Question ID : 5330723716

Option 1 ID : 53307214465

Option 2 ID : 53307214466

Option 3 ID : 53307214467

Option 4 ID : 53307214468

Status : Answered

Chosen Option : 2

Q.14

निम्नलिखित में से किसे अधिगम शैलियों के लिए उत्तरदायी ठहराया जा सकता है ?

- (A) यह विद्यार्थी के सीखने का एक तरीका है।
- (B) ये, परिवेश में उद्दीपन पर प्रतिक्रिया देने के लिए शिक्षार्थियों की शक्तियाँ और वरीयताएँ हैं।
- (C) यह, शिक्षार्थी द्वारा सीखी गई बातें हैं।
- (D) यह किसी नए अधिगम के लिए विकसित किया गया व्यवहार संबंधी पैटर्न है।

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723682

Option 1 ID : 53307214329

Option 2 ID : 53307214330

Option 3 ID : 53307214331

Option 4 ID : 53307214332

Status : Answered

Chosen Option : 3

Q.15

पौधों द्वारा प्रदत्त समय में प्रकाश संश्लेषण द्वारा उत्पन्न जैव मात्रा में से श्वसन के दौरान हुई क्षति घटाने पर शेष को निम्न में से क्या कहा जाता है ?

- (1) सकल प्राथमिक उत्पादकता
- (2) नेट प्राथमिक उत्पादकता
- (3) सकल पारिस्थितिक उत्पादकता
- (4) नेट द्वितीयक उत्पादकता

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723710

Option 1 ID : 53307214441

Option 2 ID : 53307214442

Option 3 ID : 53307214443

Option 4 ID : 53307214444

Status : Answered

Chosen Option : 3

**Q.16** Identify the correct order of the following major technological changes A-D in the development of computers based on first to fourth generation of computers :

- (A) Transistors
- (B) Microprocessor
- (C) Vacuum tubes
- (D) Integrated circuits

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723707**

Option 1 ID : **53307214429**

Option 2 ID : **53307214430**

Option 3 ID : **53307214431**

Option 4 ID : **53307214432**

Status : **Answered**

Chosen Option : **4**

**Q.17** Three major actions in the process of Communication are :

- (A) Receiving
- (B) Sending
- (C) Reviewing
- (D) Interpreting
- (E) Analysing

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723693**

Option 1 ID : **53307214373**

Option 2 ID : **53307214374**

Option 3 ID : **53307214375**

Option 4 ID : **53307214376**

Status : **Answered**

Chosen Option : **3**

**Q.18** In computer networking, an IP version-6 is \_\_\_\_\_ times larger than an IP version-4 address.

- (1) 2
- (2) 4
- (3) 6
- (4) 8

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723706**

Option 1 ID : **53307214425**

Option 2 ID : **53307214426**

Option 3 ID : **53307214427**

Option 4 ID : **53307214428**

Status : **Answered**

Chosen Option : **3**

**Q.19** To record voice narration for your Microsoft PowerPoint presentation, your computer must have :

- (A) Sound card
- (B) An internet connection
- (C) Speakers
- (D) An external video port
- (E) Microphone

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723708**

Option 1 ID : **53307214433**

Option 2 ID : **53307214434**

Option 3 ID : **53307214435**

Option 4 ID : **53307214436**

Status : **Answered**

Chosen Option : **1**

Q.20

निम्न राज्यों को उनके वनाच्छादित क्षेत्र के आरोही क्रम में व्यवस्थित कीजिए :

- (A) अरुणाचल प्रदेश
- (B) छत्तीसगढ़
- (C) महाराष्ट्र
- (D) ओडिशा
- (E) मध्य प्रदेश

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

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

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723712

Option 1 ID : 53307214449

Option 2 ID : 53307214450

Option 3 ID : 53307214451

Option 4 ID : 53307214452

Status : Answered

Chosen Option : 2

Q.21

'स्वयम प्रभा' के बारे में निम्नलिखित कौन-सा कथन गलत है?

- (1) इसकी शुरुआत श्री अबुल कलाम आजाद ने की थी।
- (2) डी.टी.एच. चैनलों के माध्यम से शिक्षा पाठ्य सामग्री के प्रसारण के लिए सैटेलाइट का प्रयोग किया जाता है।
- (3) 'स्वयम प्रभा' के वेब पोर्टल का अनुरक्षण आई.एन.एफ.एल.आई.बी.एन.ई.टी., गुजरात द्वारा किया जाता है।
- (4) 'स्वयम प्रभा' की पाठ्य सामग्री, एन.पी.टी.ई.एल., आई.आई.टी., यू.जी.सी., सीई.सी.सी. और इग्नू द्वारा उपलब्ध करवाई जाती है।

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723684

Option 1 ID : 53307214337

Option 2 ID : 53307214338

Option 3 ID : 53307214339

Option 4 ID : 53307214340

Status : Answered

Chosen Option : 3

**Q.22** Arrange the data sets with following pairs of mean ( $\bar{x}$ ) and standard derivation ( $\sigma$ ) in increasing order of their coefficient of variation.

- (A)  $\bar{x} = 8, \sigma = 1.7$   
 (B)  $\bar{x} = 11, \sigma = 2.2$   
 (C)  $\bar{x} = 15, \sigma = 3.6$   
 (D)  $\bar{x} = 16, \sigma = 3$

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

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

**Options** 1. 1

2. 2  
 3. 3  
 4. 4

Question Type : **MCQ**

Question ID : **5330723687**

Option 1 ID : **53307214349**

Option 2 ID : **53307214350**

Option 3 ID : **53307214351**

Option 4 ID : **53307214352**

Status : **Answered**

Chosen Option : **3**

**Q.23** Match List - I with List - II.

| List - I<br>(Word) | List - II<br>(Unique Code) |
|--------------------|----------------------------|
| (A) Q U A K E      | (I) K T F U L              |
| (B) O F T E N      | (II) V H Q D U             |
| (C) P E A C H      | (III) I E Y O U            |
| (D) D R I V E      | (IV) J U Y W R             |

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

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

**Options** 1. 1

2. 2  
 3. 3  
 4. 4

Question Type : **MCQ**

Question ID : **5330723699**

Option 1 ID : **53307214397**

Option 2 ID : **53307214398**

Option 3 ID : **53307214399**

Option 4 ID : **53307214400**

Status : **Answered**

Chosen Option : **2**

**Q.24** Identify the numbers that occur in the series 1, 7, 17, 31, 49, .....

- (A) 74
- (B) 95
- (C) 97
- (D) 127
- (E) 161

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723698**

Option 1 ID : **53307214393**

Option 2 ID : **53307214394**

Option 3 ID : **53307214395**

Option 4 ID : **53307214396**

Status : **Answered**

Chosen Option : **3**

**Q.25** In a race of 500 m run, A beats B by 20 m and C by 80 m. If B and C are running another race of 100 m with exactly same speed as before, then by how many meters will B beat C ?

- (1) 10.0 m
- (2) 8.5 m
- (3) 15.0 m
- (4) 12.5 m

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723696**

Option 1 ID : **53307214385**

Option 2 ID : **53307214386**

Option 3 ID : **53307214387**

Option 4 ID : **53307214388**

Status : **Answered**

Chosen Option : **2**



Q.26

निम्नलिखित से किस बात का अनुमान लगाया जा सकता है? “आपको ज्ञात है कि मुझे कैसे इस बात की जानकारी है कि पशुओं में आत्माये होती हैं? क्योंकि औसतन निम्नतम पशु इस पृथ्वी पर रहने वाले अधिकतर अनुष्यों की तुलना में काफी अच्छा और दयालु होता है।”

- (A) आधार वाक्य : निम्नतम पशु इस पृथ्वी पर रहने वाले अधिकतर मनुष्यों की तुलना में काफी अच्छा और दयालु होता है।
- (B) आधारवाक्य : पशुओं में आत्मा होती है।
- (C) यह एक युक्ति नहीं है।
- (D) निष्कर्ष : निम्नतम पशु, इस पृथ्वी पर रहने वाले अधिकतर मनुष्यों की तुलना में काफी अच्छा और दयालु होता है।
- (E) निष्कर्ष : पशुओं में आत्मा होती है।

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723701**Option 1 ID : **53307214405**Option 2 ID : **53307214406**Option 3 ID : **53307214407**Option 4 ID : **53307214408**Status : **Answered**Chosen Option : **2**

Q.27

परंपरागत शिक्षण पद्धति और सहायता प्रणाली के बारे में निम्नलिखित में से किसे सही ढंग से आशयित किया जा सकता है?

- (A) शिक्षक, कक्षा को नियंत्रित करने तथा ब्लैकबोर्ड का इस्तेमाल कर पढ़ाने के लिए उत्तरदायी होता है।
- (B) इसे 'बैंक टू बेसिक्स' प्रणाली के रूप में भी जाना जाता है।
- (C) स्व-शिक्षण उपकरणों का प्रयोग करने की जिम्मेदारी छात्रों की होती है।
- (D) आभासी प्रयोगशालाओं (वर्चुअल लैब्स) का प्रयोग एक शिक्षण उपकरण के रूप में किया जाता है।
- (E) चार्ट, मानचित्र और पाठ्यपुस्तक प्रमुख संसाधन होते हैं और शिक्षक द्वारा हैंडआउट का प्रयोग किया जाता है।

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723683**Option 1 ID : **53307214333**Option 2 ID : **53307214334**Option 3 ID : **53307214335**Option 4 ID : **53307214336**Status : **Answered**Chosen Option : **1**

Q.28

शब्द प्रमाण के सन्दर्भ में निम्नलिखित में से कौन सा सही है?

- (1) साँख्य के लिये शब्द सामान्य का सूचक है।
- (2) जैन दर्शन के लिये शब्द विशेष का सूचक है।
- (3) पुरातन न्याय के लिये शब्द सामान्य का बोध करवाता है।
- (4) वेदान्तियों के लिये शब्द का मुख्य अर्थ विशेष के जाति-गुण से है।

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 5330723704

Option 1 ID : 53307214417

Option 2 ID : 53307214418

Option 3 ID : 53307214419

Option 4 ID : 53307214420

Status : Answered

Chosen Option : 2

Q.29

Match List - I with List - II.

| List - I<br>(Constitutional Provision of Education) | List - II<br>(Article) |
|-----------------------------------------------------|------------------------|
| (A) Women's Education                               | (I) 28                 |
| (B) Education of Minorities                         | (II) 21-A              |
| (C) Secular Education                               | (III) 15 (Part-II)     |
| (D) Right to Education                              | (IV) 29 (Part-III)     |

Choose the correct answer from the options given below :

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 5330723717

Option 1 ID : 53307214469

Option 2 ID : 53307214470

Option 3 ID : 53307214471

Option 4 ID : 53307214472

Status : Answered

Chosen Option : 3

Q.30

Arrange the following fractions in increasing order :

(A)  $\frac{12}{17}$

(B)  $\frac{13}{19}$

(C)  $\frac{8}{11}$

(D)  $\frac{16}{23}$

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

(1) (B), (D), (A), (C)

(2) (B), (A), (C), (D)

(3) (D), (A), (B), (C)

(4) (D), (B), (C), (A)

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723697**

Option 1 ID : **53307214389**

Option 2 ID : **53307214390**

Option 3 ID : **53307214391**

Option 4 ID : **53307214392**

Status : **Answered**

Chosen Option : **4**

Q.31

किसको भारत में संचार की लोक परंपरा नहीं माना जा सकता है?

- (1) सिनेमा
- (2) जात्रा
- (3) रामलीला
- (4) कुंभ मेला

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723691

Option 1 ID : 53307214365

Option 2 ID : 53307214366

Option 3 ID : 53307214367

Option 4 ID : 53307214368

Status : Answered

Chosen Option : 2

Q.32

भारत में आधुनिक काल में प्रकाशित प्रथम समाचार पत्र कौन-सा है ?

- (1) हिकीस बंगाल गजट
- (2) इंडिया गजट
- (3) संवाद कौमुदी
- (4) उदन्त मार्तण्ड

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723690

Option 1 ID : 53307214361

Option 2 ID : 53307214362

Option 3 ID : 53307214363

Option 4 ID : 53307214364

Status : Answered

Chosen Option : 1

Q.33

Arrange the '5 Ws' of communication in proper sequence :

- (A) Why
- (B) When
- (C) What
- (D) Who
- (E) Where

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**Question ID : **5330723692**Option 1 ID : **53307214369**Option 2 ID : **53307214370**Option 3 ID : **53307214371**Option 4 ID : **53307214372**Status : **Answered**Chosen Option : **4**

Q.34

निम्नलिखित में किस बात का ठीक अनुमान लगाया जा सकता है? "कोई संगीतकार यूनानी नहीं है। सभी व्यापारी संगीतकार हैं। इसलिए कोई भी व्यापारी यूनानी नहीं है।"

- (A) यह न्यायवाक्यीय युक्ति की आकृति II का प्रतिनिधित्व करता है।
- (B) यह ई.ए.ई. (EAE) विन्यास है।
- (C) पद "यूनानी" साध्य पद है।
- (D) निष्कर्ष का उद्देश्य पद व्याप्त है।
- (E) मध्य पद अव्याप्त है।

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**Question ID : **5330723702**Option 1 ID : **53307214409**Option 2 ID : **53307214410**Option 3 ID : **53307214411**Option 4 ID : **53307214412**Status : **Answered**Chosen Option : **3**

- Q.35** According to UGC regulations 2018 on plagiarism, which of the following similarities constitute Level - 1 plagiarism ?
- (A) 12%
  - (B) 42%
  - (C) 28%
  - (D) 56%
  - (E) 37%

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723688**

Option 1 ID : **53307214353**

Option 2 ID : **53307214354**

Option 3 ID : **53307214355**

Option 4 ID : **53307214356**

Status : **Answered**

Chosen Option : **3**

- Q.36** सूची-I से सूची-II का मिलान कीजिए :

| सूची-I<br>( शिक्षण के प्रकार ) | सूची-II<br>( विवरण )                                                                                                                                |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| (A) व्यापक शिक्षण              | (I) ऐसी शिक्षण तकनीक जिसका प्रयोग विशेष रूप से शिक्षक की सेवा-पूर्व शिक्षा में किया जाता है ताकि उन्हें सुव्यवस्थित रूप से प्रशिक्षित किया जा सके।  |
| (B) सूक्ष्म शिक्षण             | (II) एक ऐसी पद्धति जिसमें शिक्षक विषय सामग्री को आपस में वितरित कर लेते हैं और छात्र, दूसरे शिक्षक के पास जाने से पूर्व एक शिक्षक के पास बैठते हैं। |
| (C) स्टेशन शिक्षण              | (III) कक्षा में ऐसी स्थिति जहाँ दो शिक्षक साथ-साथ एक कक्षा के संबंध में कार्य करते हैं।                                                             |
| (D) सहकारी शिक्षण              | (IV) जहाँ कोई शिक्षक विस्तारित अवधि के लिए एक समय पर पूरी कक्षा के छात्रों को पढ़ाता है।                                                            |

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723681**

Option 1 ID : **53307214325**

Option 2 ID : **53307214326**

Option 3 ID : **53307214327**

Option 4 ID : **53307214328**

Status : **Answered**

Chosen Option : **4**

**Q.37**

निम्नलिखित में युक्ति के पैटर्न की पहचान करें “आदतें केबल के समान होती हैं। हम प्रतिदिन इसका तन्तु बुनते हैं और इसे शीघ्र तोड़ा नहीं जा सकता” :

- (1) कारणात्मक युक्ति
- (2) सादृश्यता से युक्ति
- (3) प्राधिकार से युक्ति
- (4) परिभाषा से युक्ति

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723700**Option 1 ID : **53307214401**Option 2 ID : **53307214402**Option 3 ID : **53307214403**Option 4 ID : **53307214404**Status : **Answered**Chosen Option : **2****Q.38**

‘ऑकलन रुब्रिक्स’ के प्रकाश में निम्नलिखित में से किसका दावा किया जा सकता है ?

- (A) किसी मानदंड के आधार पर छात्रों की व्याख्या करने और उन्हें श्रेणीबद्ध करने के लिए प्रयोग किया जाने वाला उपकरण
- (B) मूल्यांकनकर्ता द्वारा आत्मनिष्ठ मूल्यांकन बढ़ाने के लिए साधन
- (C) यह अंकन प्रक्रिया में पारदर्शिता और निष्पक्षता सुनिश्चित करता है।
- (D) नियमन के लिए यादृच्छिक मानक और दिशानिर्देश स्थापित करने के लिए अवसर प्रदान करता है।
- (E) यह एक नवाचारी मूल्यांकन प्रणाली है।

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723680**Option 1 ID : **53307214321**Option 2 ID : **53307214322**Option 3 ID : **53307214323**Option 4 ID : **53307214324**Status : **Answered**Chosen Option : **3**



Q.39

निम्न में से कौन सा ईंधन दहन के दौरान न्यूनतम मात्रा में कज्जल कण उत्पन्न करता है ?

- (1) पेट्रोल
- (2) मिट्टी का तेल
- (3) डीजल
- (4) संपीडित प्राकृतिक गैस (सी.एन.जी.)

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723711**Option 1 ID : **53307214445**Option 2 ID : **53307214446**Option 3 ID : **53307214447**Option 4 ID : **53307214448**Status : **Answered**Chosen Option : **4**

Q.40

Match List - I with List - II.

| List - I<br>(Internet Term) | List - II<br>(Description)                                                                             |
|-----------------------------|--------------------------------------------------------------------------------------------------------|
| (A) Blogs                   | (I) Allows users to create and edit web pages using a browser                                          |
| (B) Podcasts                | (II) A type of bookmarking where a user "marks" a webpage or photo using text to describe its contents |
| (C) Tagging                 | (III) A series of digital media files                                                                  |
| (D) Wikis                   | (IV) Personal internet journals                                                                        |

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723709**Option 1 ID : **53307214437**Option 2 ID : **53307214438**Option 3 ID : **53307214439**Option 4 ID : **53307214440**Status : **Answered**Chosen Option : **2**



**Q.41** Match List - I with List - II.

| List - I<br>(International Treaties) | List - II<br>(Key Objectives)      |
|--------------------------------------|------------------------------------|
| (A) Sendai Framework                 | (I) Equality between men and women |
| (B) Monterrey Concensus              | (II) Our common future             |
| (C) Beijing Declaration              | (III) Disaster Risk Reduction      |
| (D) Brundtland Report                | (IV) Financing for development     |

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723714**

Option 1 ID : **53307214457**

Option 2 ID : **53307214458**

Option 3 ID : **53307214459**

Option 4 ID : **53307214460**

Status : **Answered**

Chosen Option : 1

**Q.42** निम्नलिखित प्राचीन भारतीय संस्थानों को पूरब से पश्चिम दिशा के क्रम में लगाइए।

- (A) तक्षशिला
- (B) नालन्दा
- (C) विक्रमशिला
- (D) शारदापीठ

नीचे दिए गए विकल्पों में से **सही उत्तर** का चयन कीजिए :

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723715**

Option 1 ID : **53307214461**

Option 2 ID : **53307214462**

Option 3 ID : **53307214463**

Option 4 ID : **53307214464**

Status : **Answered**

Chosen Option : 4

Q.43

शोध में निम्न में से कौन सी कसौटी मुख्यतया कारणता के विषय से संबंधित है ?

- (1) अंतरणीयता
- (2) मापन वैधता
- (3) बाह्य वैधता
- (4) आंतरिक वैधता

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723686

Option 1 ID : 53307214345

Option 2 ID : 53307214346

Option 3 ID : 53307214347

Option 4 ID : 53307214348

Status : Answered

Chosen Option : 2

Q.44

If  $(L)_M$  represents a number L in base-M number system, then what will be the value of  $(107)_{16} + (257)_{16}$  ?

- (1)  $(762)_{10}$
- (2)  $(862)_{10}$
- (3)  $(962)_{10}$
- (4)  $(662)_{10}$

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : MCQ

Question ID : 5330723705

Option 1 ID : 53307214421

Option 2 ID : 53307214422

Option 3 ID : 53307214423

Option 4 ID : 53307214424

Status : Answered

Chosen Option : 3

Q.45

एक शोधकर्ता प्रतिभागियों को गुमराह करने के उद्देश्य से उन्हें एक शोध सत्र के संबंध में कुछ असत्य बोलता है। वह शोधकर्ता निम्न में से किसका प्रयोग कर रहा है?

- (1) स्वाभाविक अवलोकन
- (2) भूमिका निर्वहन
- (3) सक्रिय छल
- (4) छल उद्भासन (डीहोक्सिंग)

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 5330723685

Option 1 ID : 53307214341

Option 2 ID : 53307214342

Option 3 ID : 53307214343

Option 4 ID : 53307214344

Status : Answered

Chosen Option : 1

**Comprehension:**

निम्नलिखित गद्यांश की पढ़िए और दिए गए प्रश्नों के उत्तर दीजिए।

ओडिशा में रंगबिरंगे मेले और त्योहार होते हैं और ये वर्ष में अनेक दिन मनाए जाते हैं। भाता बल भद्र और बहन सुभद्रा के साथ भगवान जगन्नाथ की पवित्र यात्रा जगन्नाथ मंदिर से दिव्य मंदिर, गुंडिचा मंदिर तक जाती है जिसे रथ महोत्सव या रथ यात्रा के रूप में जाना जाता है। इस अवसर पर ये देवी-देवता क्रमशः तीन रथों-नंदीघोष, तल ध्वज, दर्पदलन पर विराजमान होते हैं। वे नौ दिन तक दिव्य मंदिर में निवास करते हैं और उसके बाद वापस जगन्नाथ मंदिर आते हैं। इस यात्रा को बहुदा यात्रा कहा जाता है। ओडिशा के इस महान उत्सव में भारत और विदेशों से लाखों भक्त भाग लेते हैं जो विशाल यात्रा मार्ग जिसे बददंदा कहा जाता है, पर पवित्र रथों को जगन्नाथ मंदिर से गुंडिचा मंदिर तक और वापसी की यात्रा में खींचते हैं। यह त्योहार प्रतिवर्ष आषाढ़ माह (जून-जुलाई) में शुक्ल पक्ष के दूसरे दिन से आरंभ होता है। भगवान जगन्नाथ, जिनका ब्रह्मांड के महादेव के रूप में पूजन किया जाता है, का त्योहार केवल पुरी में ही नहीं मनाया जाता है बल्कि भारत एवं विदेश के अनेक स्थानों पर भी मनाया जाता है।

**SubQuestion No : 46**

Q.46

रथ महोत्सव एक विशाल पथ पर आयोजित किया जाता है जिसे कहा जाता है?

- (1) दर्पदलन
- (2) आषाढ़
- (3) बददंदा
- (4) तलध्वज

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 5330723724

Option 1 ID : 53307214493

Option 2 ID : 53307214494

Option 3 ID : 53307214495

Option 4 ID : 53307214496

Status : Answered

Chosen Option : 3

**Comprehension:**

निम्नलिखित गद्यांश की पढ़िए और दिए गए प्रश्नों के उत्तर दीजिए।

ओडिशा में रंगबिरंगे मेले और त्योहार होते हैं और ये वर्ष में अनेक दिन मनाए जाते हैं। भ्राता बलभद्र और बहन सुभद्रा के साथ भगवान जगन्नाथ की पवित्र यात्रा जगन्नाथ मंदिर से दिव्य मंदिर, गुंडिचा मंदिर तक जाती है जिसे रथ महोत्सव या रथ यात्रा के रूप में जाना जाता है। इस अवसर पर ये देवी-देवता क्रमशः तीन रथों-नंदीघोष, तल ध्वज, दर्पदलन पर विराजमान होते हैं। वे नौ दिन तक दिव्य मंदिर में निवास करते हैं और उसके बाद वापस जगन्नाथ मंदिर आते हैं। इस यात्रा को बहुदा यात्रा कहा जाता है। ओडिशा के इस महान उत्सव में भारत और विदेशों से लाखों भक्त भाग लेते हैं जो विशाल यात्रा मार्ग जिसे बदरदा कहा जाता है, पर पवित्र रथों को जगन्नाथ मंदिर से गुंडिचा मंदिर तक और वापसी की यात्रा में खींचते हैं। यह त्योहार प्रतिवर्ष आषाढ़ माह (जून-जुलाई) में शुक्ल पक्ष के दूसरे दिन से आरंभ होता है। भगवान जगन्नाथ, जिनका ब्रह्मांड के महादेव के रूप में पूजन किया जाता है, का त्योहार केवल पुरी में ही नहीं मनाया जाता है बल्कि भारत एवं विदेश के अनेक स्थानों पर भी मनाया जाता है।

**SubQuestion No : 47****Q.47**

भगवान जगन्नाथ की पवित्र यात्रा पारंपरिक रूप से किस दिव्य मंदिर तक जाती है ?

- (1) जगन्नाथ मंदिर
- (2) सुभद्रा मंदिर
- (3) बलभद्र मंदिर
- (4) गुंडिचा मंदिर

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**Question ID : **5330723723**Option 1 ID : **53307214489**Option 2 ID : **53307214490**Option 3 ID : **53307214491**Option 4 ID : **53307214492**Status : **Answered**Chosen Option : **4**

**Comprehension:**

निम्नलिखित गद्यांश की पढ़िए और दिए गए प्रश्नों के उत्तर दीजिए।

ओडिशा में रंगबिरंगे मेले और त्योहार होते हैं और ये वर्ष में अनेक दिन मनाए जाते हैं। भ्राता बलभद्र और बहन सुभद्रा के साथ भगवान जगन्नाथ की पवित्र यात्रा जगन्नाथ मंदिर से दिव्य मंदिर, गुंडिचा मंदिर तक जाती है जिसे रथ महोत्सव या रथ यात्रा के रूप में जाना जाता है। इस अवसर पर ये देवी-देवता क्रमशः तीन रथों-नंदीघोष, तल ध्वज, दर्पदलन पर विराजमान होते हैं। वे नौ दिन तक दिव्य मंदिर में निवास करते हैं और उसके बाद वापस जगन्नाथ मंदिर आते हैं। इस यात्रा को बहुदा यात्रा कहा जाता है। ओडिशा के इस महान उत्सव में भारत और विदेशों से लाखों भक्त भाग लेते हैं जो विशाल यात्रा मार्ग जिसे बदरदा कहा जाता है, पर पवित्र रथों को जगन्नाथ मंदिर से गुंडिचा मंदिर तक और वापसी की यात्रा में खींचते हैं। यह त्योहार प्रतिवर्ष आषाढ़ माह (जून-जुलाई) में शुक्ल पक्ष के दूसरे दिन से आरंभ होता है। भगवान जगन्नाथ, जिनका ब्रह्मांड के महादेव के रूप में पूजन किया जाता है, का त्योहार केवल पुरी में ही नहीं मनाया जाता है बल्कि भारत एवं विदेश के अनेक स्थानों पर भी मनाया जाता है।

**SubQuestion No : 48****Q.48**

रथ यात्रा में भगवान जगन्नाथ के साथ रथों पर विराजमान देवी-देवता के नाम क्या हैं ?

- (1) सुभद्रा और बलभद्र
- (2) बलभद्र और शिव
- (3) सुभद्रा और हिदिम्बा
- (4) बलभद्र और हिदिम्बा

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**Question ID : **5330723722**Option 1 ID : **53307214485**Option 2 ID : **53307214486**Option 3 ID : **53307214487**Option 4 ID : **53307214488**Status : **Answered**Chosen Option : **1**

**Comprehension:**

निम्नलिखित गद्यांश की पढ़िए और दिए गए प्रश्नों के उत्तर दीजिए।

ओडिशा में रंगबिरंगे मेले और त्योहार होते हैं और ये वर्ष में अनेक दिन मनाए जाते हैं। भ्राता बल भद्र और बहन सुभद्रा के साथ भगवान जगन्नाथ की पवित्र यात्रा जगन्नाथ मंदिर से दिव्य मंदिर, गुंडिचा मंदिर तक जाती है जिसे रथ महोत्सव या रथ यात्रा के रूप में जाना जाता है। इस अवसर पर ये देवी-देवता क्रमशः तीन रथों-नंदीघोष, तल ध्वज, दर्पदलन पर विराजमान होते हैं। वे नौ दिन तक दिव्य मंदिर में निवास करते हैं और उसके बाद वापस जगन्नाथ मंदिर आते हैं। इस यात्रा को बहुदा यात्रा कहा जाता है। ओडिशा के इस महान उत्सव में भारत और विदेशों से लाखों भक्त भाग लेते हैं जो विशाल यात्रा मार्ग जिसे बदरदा कहा जाता है, पर पवित्र रथों को जगन्नाथ मंदिर से गुंडिचा मंदिर तक और वापसी की यात्रा में खींचते हैं। यह त्योहार प्रतिवर्ष आषाढ़ माह (जून-जुलाई) में शुक्ल पक्ष के दूसरे दिन से आरंभ होता है। भगवान जगन्नाथ, जिनका ब्रह्मांड के महादेव के रूप में पूजन किया जाता है, का त्योहार केवल पुरी में ही नहीं मनाया जाता है बल्कि भारत एवं विदेश के अनेक स्थानों पर भी मनाया जाता है।

**SubQuestion No : 49****Q.49**

जब नौ दिन के बाद देवी-देवता वापस जगन्नाथ मंदिर आते हैं, उस यात्रा का क्या नाम है?

- (1) रथ यात्रा
- (2) वापसी यात्रा
- (3) महा यात्रा
- (4) बहुदा यात्रा

**Options 1. 1**

- 2. 2
- 3. 3
- 4. 4

**Question Type : MCQ****Question ID : 5330723725****Option 1 ID : 53307214497****Option 2 ID : 53307214498****Option 3 ID : 53307214499****Option 4 ID : 53307214500****Status : Answered****Chosen Option : 4**

**Comprehension:**

निम्नलिखित गद्यांश की पढ़िए और दिए गए प्रश्नों के उत्तर दीजिए।

ओडिशा में रंगबिरंगे मेले और त्योहार होते हैं और ये वर्ष में अनेक दिन मनाए जाते हैं। भ्राता बल भद्र और बहन सुभद्रा के साथ भगवान जगन्नाथ की पवित्र यात्रा जगन्नाथ मंदिर से दिव्य मंदिर, गुंडिचा मंदिर तक जाती है जिसे रथ महोत्सव या रथ यात्रा के रूप में जाना जाता है। इस अवसर पर ये देवी-देवता क्रमशः तीन रथों-नंदीघोष, तल ध्वज, दर्पदलन पर विराजमान होते हैं। वे नौ दिन तक दिव्य मंदिर में निवास करते हैं और उसके बाद वापस जगन्नाथ मंदिर आते हैं। इस यात्रा को बहुदा यात्रा कहा जाता है। ओडिशा के इस महान उत्सव में भारत और विदेशों से लाखों भक्त भाग लेते हैं जो विशाल यात्रा मार्ग जिसे बदरदा कहा जाता है, पर पवित्र रथों को जगन्नाथ मंदिर से गुंडिचा मंदिर तक और वापसी की यात्रा में खींचते हैं। यह त्योहार प्रतिवर्ष आषाढ़ माह (जून-जुलाई) में शुक्ल पक्ष के दूसरे दिन से आरंभ होता है। भगवान जगन्नाथ, जिनका ब्रह्मांड के महादेव के रूप में पूजन किया जाता है, का त्योहार केवल पुरी में ही नहीं मनाया जाता है बल्कि भारत एवं विदेश के अनेक स्थानों पर भी मनाया जाता है।

**SubQuestion No : 50**

**Q.50** यद्यपि भगवान जगन्नाथ का त्योहार भारत और विदेश के कई स्थानों पर मनाया जाता है, यह प्राथमिक रूप से किस नगर से संबंधित है ?

- (1) भुवनेश्वर
- (2) पुरी
- (3) कटक
- (4) कोणार्क

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723721**

Option 1 ID : **53307214481**

Option 2 ID : **53307214482**

Option 3 ID : **53307214483**

Option 4 ID : **53307214484**

Status : **Answered**

Chosen Option : **2**

**Section : Computer Science and Applications**

**Q.51** Which of the following relations can not be decomposed in to BCNF with a lossless join and dependency-preserving decomposition ?

- (1)  $R(V, W, X, Y, Z) \{VW \rightarrow X, WX \rightarrow V, VX \rightarrow W, W \rightarrow Y, Y \rightarrow Z\}$
- (2)  $R(V, W, X, Y) \{VW \rightarrow W, X \rightarrow Y\}$
- (3)  $R(V, W, X, Y) \{VW \rightarrow X, X \rightarrow VY\}$
- (4)  $R(V, W, X, Y, Z) \{VW \rightarrow X, X \rightarrow Y, Y \rightarrow Z, Z \rightarrow V\}$

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723755**

Option 1 ID : **53307214617**

Option 2 ID : **53307214618**

Option 3 ID : **53307214619**

Option 4 ID : **53307214620**

Status : **Answered**

Chosen Option : **3**



**Q.52** Arrange the following recurrence relations in increasing order of their time capacity.

- (A)  $T(n) = T(n/2) + 1$
- (B)  $T(n) = 2T(n/2) + n$
- (C)  $T(n) = 3T(n/3) + n$
- (D)  $T(n) = 2T(n/2) + \sqrt{n}$
- (E)  $T(n) = T(n-1) + 1$

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723774**

Option 1 ID : **53307214693**

Option 2 ID : **53307214694**

Option 3 ID : **53307214695**

Option 4 ID : **53307214696**

Status : **Answered**

Chosen Option : **1**

**Q.53** Match List - I with List - II.

**List - I**

- (A) Representation of bits
- (B) Physical Address
- (C) Logical Address
- (D) Segmentation and reassembly

**List - II**

- (I) Transport layer
- (II) Physical layer
- (III) Network layer
- (IV) Data link layer

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723809**

Option 1 ID : **53307214833**

Option 2 ID : **53307214834**

Option 3 ID : **53307214835**

Option 4 ID : **53307214836**

Status : **Answered**

Chosen Option : **2**

**Q.54** Find the correct sequence of the storage device in ascending order based on their access time.

- (A) Registers
- (B) Magnetic Disk
- (C) Magnetic Tapes
- (D) Main memory
- (E) Optical Disk

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723770**

Option 1 ID : **53307214677**

Option 2 ID : **53307214678**

Option 3 ID : **53307214679**

Option 4 ID : **53307214680**

Status : **Answered**

Chosen Option : **4**

**Q.55** Match List - I with List - II.

**List - I**

**(Testing Type)**

- (A) Unit testing
- (B) Integrating testing
- (C) System testing
- (D) Acceptance testing

**List - II**

**(Description)**

- (I) Testing individual components of the software.
- (II) Testing the interaction between integrated components.
- (III) Testing to verify the system meets business needs.
- (IV) Testing the complete system to ensure it meets requirements.

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723812**

Option 1 ID : **53307214845**

Option 2 ID : **53307214846**

Option 3 ID : **53307214847**

Option 4 ID : **53307214848**

Status : **Answered**

Chosen Option : **2**

- Q.56** Arrange the following Language Classes in ascending order according to their expressive power, as defined by Chomsky hierarchy :
- (A) Context-free languages
  - (B) Context-sensitive languages
  - (C) Regular languages
  - (D) Unrestricted Grammars
- Choose the **correct** answer from the options given below :
- (1) (C), (A), (B), (D)
  - (2) (C), (A), (D), (B)
  - (3) (A), (C), (B), (D)
  - (4) (A), (D), (B), (C)

**Options** 1. 1  
2. 2  
3. 3  
4. 4

Question Type : **MCQ**  
 Question ID : **5330723777**  
 Option 1 ID : **53307214705**  
 Option 2 ID : **53307214706**  
 Option 3 ID : **53307214707**  
 Option 4 ID : **53307214708**  
 Status : **Answered**  
 Chosen Option : **2**

- Q.57** Match List - I with List - II.

| List - I                      | List - II                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------|
| (A) Dijkstra's Algorithms     | (I) Find the shortest path between all pairs of vertices in a graph with positive or negative edge weights. |
| (B) Floyd-Warshall Algorithms | (II) Finds the shortest path in a weighted graph with non-negative edge weights.                            |
| (C) Bellman-ford Algorithms   | (III) Sorts elements by repeatedly moving them past neighboring elements that are smaller.                  |
| (D) Prim's Algorithms         | (IV) Determines the strongest connected components in a directed graph.                                     |

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

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

**Options** 1. 1  
2. 2  
3. 3  
4. 4

Question Type : **MCQ**  
 Question ID : **5330723810**  
 Option 1 ID : **53307214837**  
 Option 2 ID : **53307214838**  
 Option 3 ID : **53307214839**  
 Option 4 ID : **53307214840**  
 Status : **Answered**  
 Chosen Option : **2**

**Q.58** Arrange the given steps required for a Direct Memory Access (DMA) transfer in the correct order.

- (A) Initiate DMA transfer request
- (B) Transfer data directly between peripheral and memory
- (C) Processor grants DMA control over the system bus
- (D) DMA controller completes data transfer and signals completion

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723768**

Option 1 ID : **53307214669**

Option 2 ID : **53307214670**

Option 3 ID : **53307214671**

Option 4 ID : **53307214672**

Status : **Answered**

Chosen Option : **3**

**Q.59** A graph G with number of vertices greater and equal than three i.e. ( $n \geq 3$ ) is a Hamiltonian graph, if the degree of each vertex is greater and equal to . . . .

- (1) Equal to number of vertices
- (2) Double of number of vertices
- (3) Half of number of vertices
- (4) Four times of number of vertices

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723802**

Option 1 ID : **53307214805**

Option 2 ID : **53307214806**

Option 3 ID : **53307214807**

Option 4 ID : **53307214808**

Status : **Answered**

Chosen Option : **3**

**Q.60** Arrange the following steps in a proper sequence for the typical process of a DNS query :

- (A) Query authoritative DNS Server
- (B) Query local DNS Server
- (C) Local DNS Server Check Cache
- (D) Query root DNS Server
- (E) Query TLD DNS Server

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723778**

Option 1 ID : **53307214709**

Option 2 ID : **53307214710**

Option 3 ID : **53307214711**

Option 4 ID : **53307214712**

Status : **Answered**

Chosen Option : **1**

**Q.61** In a schema  $R(A, B, C, D, E, F, G, H)$ , each field of  $R$  contains only atomic values.

$F = \{CH \rightarrow G, A \rightarrow BC, B \rightarrow CFH, E \rightarrow A, F \rightarrow EG\}$  is a set of functional dependencies so that  $F +$  is exactly the set of FDs that holds  $R$ . The relation  $R$  is :

- (1) In 1NF, but not in 2NF
- (2) In 2NF, but not in 3NF
- (3) In 3NF, but not in BCNF
- (4) In BCNF

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723756**

Option 1 ID : **53307214621**

Option 2 ID : **53307214622**

Option 3 ID : **53307214623**

Option 4 ID : **53307214624**

Status : **Answered**

Chosen Option : **2**

**Q.62** Consider the Grammar :

$S \rightarrow A$

$A \rightarrow \$B\$ | id$

$B \rightarrow B, A | A$

If  $I_0 = \text{CLOSURE}(\{[S \rightarrow .A]\})$  then, how many items be in the set for  $\text{GOTO}(I_0, \$)$

- (1) 3
- (2) 4
- (3) 5
- (4) 6

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723726**

Option 1 ID : **53307214501**

Option 2 ID : **53307214502**

Option 3 ID : **53307214503**

Option 4 ID : **53307214504**

Status : **Answered**

Chosen Option : **2**

**Q.63** Which of the following statements about pointers in C are TRUE.

- (A) Pointers can be used to access array elements
- (B) Pointers can store the address of another pointer
- (C) Pointers are automatically dereferenced in expression
- (D) Pointers cannot be used to access structure members

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723796**

Option 1 ID : **53307214781**

Option 2 ID : **53307214782**

Option 3 ID : **53307214783**

Option 4 ID : **53307214784**

Status : **Answered**

Chosen Option : **1**

**Q.64** Arrange the following steps in proper sequence involved in a Genetic Algorithm :

- (A) Selection
- (B) Initialization
- (C) Crossover
- (D) Mutation
- (E) Evaluation

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723780**

Option 1 ID : **53307214717**

Option 2 ID : **53307214718**

Option 3 ID : **53307214719**

Option 4 ID : **53307214720**

Status : **Answered**

Chosen Option : **4**

**Q.65** Arrange the following steps in a proper sequence for the process of training a neural network.

- (A) Weight initialization
- (B) Feed forward
- (C) Back Propagation
- (D) Loss Calculation
- (E) Weight Update

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723779**

Option 1 ID : **53307214713**

Option 2 ID : **53307214714**

Option 3 ID : **53307214715**

Option 4 ID : **53307214716**

Status : **Answered**

Chosen Option : **1**



**Q.66** Which of the following C++ statements correctly declares an abstract class ?

- (1) class A { virtual void show()=0; };
- (2) class A { void show()=0; };
- (3) class A { void show() { } ;};
- (4) class A { show()=0; };

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723748**

Option 1 ID : **53307214589**

Option 2 ID : **53307214590**

Option 3 ID : **53307214591**

Option 4 ID : **53307214592**

Status : **Answered**

Chosen Option : **3**

**Q.67** Match List - I with List - II.

**List - I**  
(computing systems)

- (A) Half Adder
- (B) Decoder
- (C) Register
- (D) Main memory

**List - II**  
(working/output)

- (I) Has n input and  $2^n$  output
- (II) CPU Storage Unit
- (III) Used to store program at runtime
- (IV) 2-bit addition circuit

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723806**

Option 1 ID : **53307214821**

Option 2 ID : **53307214822**

Option 3 ID : **53307214823**

Option 4 ID : **53307214824**

Status : **Answered**

Chosen Option : **3**

**Q.68** Arrange the following steps in the correct order to solve the Knapsack problem using Dynamic Programming.

- (A) Define the base case when the capacity is zero (0) or no items are left to consider
- (B) Compute the maximum value that can be obtained using items up to the i-th item and a knapsack capacity of 0
- (C) Identify subproblems and their dependencies based on items weights and values
- (D) Initialize a table to store results of subproblems
- (E) Iterate through each item and each possible Capacity to fill the table

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723773**

Option 1 ID : **53307214689**

Option 2 ID : **53307214690**

Option 3 ID : **53307214691**

Option 4 ID : **53307214692**

Status : **Answered**

Chosen Option : **2**

**Q.69** Match List - I with List - II.

**List - I**

- (A) The activation function
- (B) The learning method of perceptron
- (C) Areas of application of artificial neural network include
- (D) The output of the perceptron

**List - II**

- (I) is called the delta rule.
- (II) is one of the key components of the perceptron as in the most common neural network architecture.
- (III) is always boolean like a switch.
- (IV) system identification and control.

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723807**

Option 1 ID : **53307214825**

Option 2 ID : **53307214826**

Option 3 ID : **53307214827**

Option 4 ID : **53307214828**

Status : **Answered**

Chosen Option : **3**

- Q.70** In a token ring network the transmission speed is  $10^7$  bps and the propagation speed is  $200 \text{ m}/\mu\text{s}$ .  
The 1-bit delay in this network is equivalent to \_\_\_\_\_.
- (1) 20 m
  - (2) 30 m
  - (3) 50 m
  - (4) 40 m

**Options**

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**  
Question ID : **5330723741**  
Option 1 ID : **53307214561**  
Option 2 ID : **53307214562**  
Option 3 ID : **53307214563**  
Option 4 ID : **53307214564**  
Status : **Answered**  
Chosen Option : 1

- Q.71** Consider the following statements regarding combinational and sequential circuits.
- (A) Output of combinational circuits depends on the only current input.
  - (B) Output of combinational circuit depends on the both current input and previous output.
  - (C) Output of sequential circuit depends on the current input.
  - (D) Output of sequential circuit depends on both current input and previous output.
- Choose the **correct** answer from the options given below :
- (1) (A) and (C) Only
  - (2) (A) and (D) Only
  - (3) (B) and (D) Only
  - (4) (B) and (C) Only

**Options**

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**  
Question ID : **5330723798**  
Option 1 ID : **53307214789**  
Option 2 ID : **53307214790**  
Option 3 ID : **53307214791**  
Option 4 ID : **53307214792**  
Status : **Answered**  
Chosen Option : 2

Q.72

Consider following C program :

```
#include<stdio.h>
int main()
{
    int x[]={2, 4, 6, 8, 10};
    int a, b=0, *y=x+4;
    for(a=0; a<5; a++)
    {
        b=b+(*y-a)-*(y-a);
    }
    printf("%d\n", b);
    return 0;
}
```

What will be the output of the above C program ?

- (1) 4
- (2) 6
- (3) 8
- (4) 10

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723744**

Option 1 ID : **53307214573**

Option 2 ID : **53307214574**

Option 3 ID : **53307214575**

Option 4 ID : **53307214576**

Status : **Answered**

Chosen Option : **2**

**Q.73** Translate  $\forall x \exists y (x < y)$  in English. Consider domain as a real number for both the variables.

- (1) For all real numbers  $x$ , there exists a real number  $y$  such that  $x$  is less than  $y$
- (2) For every real numbers  $y$ , there exists a real number  $x$  such that  $x$  is less than  $y$
- (3) For some real numbers  $x$ , there exists a real number  $y$  such that  $x$  is less than  $y$
- (4) For each and every real numbers  $x$  and  $y$ ,  $x$  is less than  $y$

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723762**

Option 1 ID : **53307214645**

Option 2 ID : **53307214646**

Option 3 ID : **53307214647**

Option 4 ID : **53307214648**

Status : **Answered**

Chosen Option : **2**

**Q.74** Which of the following languages can be recognized by Non-Deterministic Finite Automata (NFA) but cannot be recognized by Deterministic Finite Automata (DFA) ?

- (A)  $L_1 = \{w \in \{0, 1\}^* \mid \text{the length of } w \text{ is even}\}$
- (B)  $L_2 = \{w \in \{0, 1\}^* \mid \text{the length of } w \text{ is odd}\}$
- (C)  $L_3 = \{w \in \{0, 1\}^* \mid \text{all 0's come before all 1's in } w\}$
- (D)  $L_4 = \{w \in \{0, 1\}^* \mid w \text{ contains an equal number of 0's and 1's}\}$
- (E)  $L_5 = \{w \in \{0, 1\}^* \mid \text{all 1's come before all 0's in } w\}$

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723788**

Option 1 ID : **53307214749**

Option 2 ID : **53307214750**

Option 3 ID : **53307214751**

Option 4 ID : **53307214752**

Status : **Answered**

Chosen Option : **3**

**Q.75** Consider the Grammar :

$T \rightarrow Qx$

$Q \rightarrow RS$

$R \rightarrow y \mid \epsilon$

$S \rightarrow z \mid \epsilon$

Here  $x, y, z$  are terminals and  $T, Q, R, S$  are non terminals.

What will be the follow set of the non terminal  $R$  ?

(1)  $\{x, y\}$

(2)  $\{y, z\}$

(3)  $\{z, x\}$

(4)  $\{\epsilon\}$

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723727**

Option 1 ID : **53307214505**

Option 2 ID : **53307214506**

Option 3 ID : **53307214507**

Option 4 ID : **53307214508**

Status : **Answered**

Chosen Option : **2**

**Q.76** Two computers A and B are configured as follows : A has IP address 203.197.2.53 and subnet mask 255.255.128.0, B has IP address 203.197.75.201 and subnet mask 255.255.192.0. What one of the following statement is true ?

(1) A and B both assume they are on the same network

(2) B assumes, A is on same network, A assumes B is on different network

(3) A assumes, B is on same network, but B assumes, A is on a different network

(4) A and B both assume they are on different network

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723739**

Option 1 ID : **53307214553**

Option 2 ID : **53307214554**

Option 3 ID : **53307214555**

Option 4 ID : **53307214556**

Status : **Answered**

Chosen Option : **2**

Q.77

Match List - I with List - II.

| List - I     |               | List - II |         |
|--------------|---------------|-----------|---------|
| (IP Address) |               | (Class)   |         |
| (A)          | 10.20.30.40   | (I)       | Class E |
| (B)          | 210.20.30.3   | (II)      | Class B |
| (C)          | 180.30.100.10 | (III)     | Class A |
| (D)          | 252.5.15.11   | (IV)      | Class C |

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**Question ID : **5330723804**Option 1 ID : **53307214813**Option 2 ID : **53307214814**Option 3 ID : **53307214815**Option 4 ID : **53307214816**Status : **Answered**Chosen Option : **3**



Q.78 What will be the output of the following C code?

```
#include<stdio.h>
void main()
{
    int arr[5] = {10, 20, 30, 40, 50};
    int *p = (int*) (&arr + 1);
    printf("%d %d", *(arr + 1), *(p - 1));
}
```

- (1) 10 50
- (2) 20 50
- (3) 30 40
- (4) 20 40

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723746**

Option 1 ID : **53307214581**

Option 2 ID : **53307214582**

Option 3 ID : **53307214583**

Option 4 ID : **53307214584**

Status : **Answered**

Chosen Option : **4**

Q.79 What is SQL primarily used for in the context of relational databases ?

- (1) To design user interfaces
- (2) To create and manipulate databases
- (3) To display data on web pages
- (4) To format printed reports

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723751**

Option 1 ID : **53307214601**

Option 2 ID : **53307214602**

Option 3 ID : **53307214603**

Option 4 ID : **53307214604**

Status : **Answered**

Chosen Option : **2**

- Q.80** Given a project that uses the COCOMO model with an estimated effort of 2000 person-months and a productivity rate of 5 person-month per KLOC, what is the estimated size of the project in KLOC ?
- (1) 200
  - (2) 400
  - (3) 100
  - (4) 50

**Options** 1. 1  
2. 2  
3. 3  
4. 4

Question Type : **MCQ**  
 Question ID : **5330723736**  
 Option 1 ID : **53307214541**  
 Option 2 ID : **53307214542**  
 Option 3 ID : **53307214543**  
 Option 4 ID : **53307214544**  
 Status : **Answered**  
 Chosen Option : **2**

- Q.81** Match List - I with List - II.

| List - I<br>(software design principles) | List - II<br>(Definition)                                                        |
|------------------------------------------|----------------------------------------------------------------------------------|
| (A) Cohesion                             | (I) Degree to which one module relies on another module.                         |
| (B) Coupling                             | (II) Dividing a software system into distinct modules.                           |
| (C) Abstraction                          | (III) Degree to which elements of a module belong together.                      |
| (D) Modularity                           | (IV) Simplifying complex reality by modeling classes appropriate to the problem. |

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

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

**Options** 1. 1  
2. 2  
3. 3  
4. 4

Question Type : **MCQ**  
 Question ID : **5330723811**  
 Option 1 ID : **53307214841**  
 Option 2 ID : **53307214842**  
 Option 3 ID : **53307214843**  
 Option 4 ID : **53307214844**  
 Status : **Answered**  
 Chosen Option : **3**

**Q.82** Consider the transactions  $T_1$ ,  $T_2$ ,  $T_3$  and the schedules  $S_1$  and  $S_2$  given below.

$T_1 : r_1(x); r_1(z); w_1(z)$

$T_2 : r_2(y); r_2(z); w_2(z)$

$T_3 : r_3(y); r_3(x); w_3(y)$

$S_1 : r_1(x); r_3(y); r_3(x); r_2(y); r_2(z); w_3(y); w_3(z);$   
 $r_1(z); w_1(x); w_1(z)$

$S_2 : r_1(x); r_3(y); r_2(y); r_3(x); r_1(z); r_2(z); w_3(y);$   
 $w_1(x); w_2(z); w_1(z)$

Which one of the following statements about the schedules is TRUE ?

- (1) Only  $S_1$  is conflict-serializable
- (2) Only  $S_2$  is conflict-serializable
- (3) Both  $S_1$  and  $S_2$  are conflict-serializable
- (4) Neither  $S_1$  nor  $S_2$  is conflict-serializable

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723757**

Option 1 ID : **53307214625**

Option 2 ID : **53307214626**

Option 3 ID : **53307214627**

Option 4 ID : **53307214628**

Status : **Answered**

Chosen Option : **3**

**Q.83** Consider the following statement regarding special purpose registers.

- (A) Program Counter (PC) keeps the track of next instruction executed
- (B) Instruction register holds the address of first instruction to be executed
- (C) Accumulator holds the output of ALU
- (D) Program Counter (PC) keeps the track of only first instruction of the program

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723784**

Option 1 ID : **53307214733**

Option 2 ID : **53307214734**

Option 3 ID : **53307214735**

Option 4 ID : **53307214736**

Status : **Answered**

Chosen Option : **1**

Q.84

Which of the following are Agile Process Models ?

- (A) Extreme Programming (XP)
- (B) Waterfall
- (C) Scrum
- (D) Spiral
- (E) Incremental

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723795**

Option 1 ID : **53307214777**

Option 2 ID : **53307214778**

Option 3 ID : **53307214779**

Option 4 ID : **53307214780**

Status : **Answered**

Chosen Option : **1**

Q.85

Arrange the following phases of database design in the correct order :

- (A) Physical Design
- (B) Conceptual Design
- (C) Logical Design
- (D) Requirement Analysis

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723766**

Option 1 ID : **53307214661**

Option 2 ID : **53307214662**

Option 3 ID : **53307214663**

Option 4 ID : **53307214664**

Status : **Answered**

Chosen Option : **3**

- Q.86** Which of the following statements are TRUE about mutual exclusion in concurrent programming ?
- (A) Mutual exclusion ensures that only one process can be in a critical section at any given time.
  - (B) Mutual exclusion are designed to prevent conflicts and ensure that only one process can access shared resources at a time.
  - (C) Mutual exclusion can use various algorithms to ensure that processes do not enter the critical section simultaneously.
  - (D) Mutual exclusion allows multiple processes to access the critical section simultaneously to improve performance.

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723787**

Option 1 ID : **53307214745**

Option 2 ID : **53307214746**

Option 3 ID : **53307214747**

Option 4 ID : **53307214748**

Status : **Answered**

Chosen Option : **3**

- Q.87** Consider a relation schema  $R = (U, V, W, X, Y, Z)$ , on which the following functional dependencies hold :

$\{U \rightarrow V, VW \rightarrow X, Y \rightarrow W; X \rightarrow U\}$

The candidate keys of R are :

- (1) UY, VY
- (2) UY, VY, XY
- (3) UYZ, VYZ, VWZ
- (4) UYZ, VYZ, XYZ

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723754**

Option 1 ID : **53307214613**

Option 2 ID : **53307214614**

Option 3 ID : **53307214615**

Option 4 ID : **53307214616**

Status : **Answered**

Chosen Option : **4**

**Q.88** Host A (on TCP/IPv4 Networks) send an IP Datagram D to host B (also on TCP/IPv4 network). Assume that no error occurred during transmission of D, when D reaches B. Which of following header field may differ from that of original datagram D ?

- (A) TTL
- (B) Checksum
- (C) Fragment offset
- (D) Source IP
- (E) Destination IP

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723790**

Option 1 ID : **53307214757**

Option 2 ID : **53307214758**

Option 3 ID : **53307214759**

Option 4 ID : **53307214760**

Status : **Answered**

Chosen Option : **3**

**Q.89** Consider a CSMA/CD network that transmits data at the rate of 100 Mbps over a 1 Kilometre cable with no repeater. If the minimum frame size required for this network is 1250 bytes, what is the signal speed (km/sec) in the cable.

- (1) 8000
- (2) 16000
- (3) 12000
- (4) 20000

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723742**

Option 1 ID : **53307214565**

Option 2 ID : **53307214566**

Option 3 ID : **53307214567**

Option 4 ID : **53307214568**

Status : **Answered**

Chosen Option : **2**

Q.90

```
#include<iostream.h>
using namespace std;
void swap(int &x, int &y)
{
    int temp=x;
    x=y;
    y=temp;
}
int main()
{
    int a=5, b=10;
    swap(a,b);
    swap(a,b);
    cout<<a<<" "<<b;
    return 0;
}
```

What will be the output of above code ?

- (1) 5, 10
- (2) 10, 5
- (3) 5, 5
- (4) 10, 10

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723732**

Option 1 ID : **53307214525**

Option 2 ID : **53307214526**

Option 3 ID : **53307214527**

Option 4 ID : **53307214528**

Status : **Answered**

Chosen Option : **3**



- Q.91** Consider the three way hand shaking process followed during TCP connection establishment between two hosts A and B. Let S and R be two random 32-bit starting sequence numbers chosen by A and B, respectively. Suppose A sends a TCP segment having SYN bit=1, SEQ number=S and ACK bit=0 and B accepts the connection request.
- Which one of the following choices represents the information present in the TCP segment header that is sent by B to A ?
- (1) SYN bit=1, SEQ number=S+1, ACK bit=0, ACK number=R, FiN bit=0
  - (2) SYN bit=0, SEQ number=R, ACK bit=1, ACK number=S+1, FiN bit=0
  - (3) SYN bit=1, SEQ number=R, ACK bit=1, ACK number=S+1, FiN bit=0
  - (4) SYN bit=1, SEQ number=R, ACK bit=1, ACK number=S, FiN bit=0

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723738**

Option 1 ID : **53307214549**

Option 2 ID : **53307214550**

Option 3 ID : **53307214551**

Option 4 ID : **53307214552**

Status : **Answered**

Chosen Option : **2**

- Q.92** Arrange the following steps of file handling in C in the correct order :

- (A) Close the file
- (B) Read from or write to the file
- (C) Open the file
- (D) Check for error

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723769**

Option 1 ID : **53307214673**

Option 2 ID : **53307214674**

Option 3 ID : **53307214675**

Option 4 ID : **53307214676**

Status : **Answered**

Chosen Option : **3**

**Q.93**

Select the Sorting Algorithms that are stable.

- (A) Quick Sort
- (B) Bubble Sort
- (C) Insertion Sort
- (D) Merge Sort
- (E) Shell Sort

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723793**

Option 1 ID : **53307214769**

Option 2 ID : **53307214770**

Option 3 ID : **53307214771**

Option 4 ID : **53307214772**

Status : **Answered**

Chosen Option : **2**

**Q.94** Match List - I with List - II.

| List - I<br>(operating system concepts) | List - II<br>(characteristics)         |
|-----------------------------------------|----------------------------------------|
| (A) Paging                              | (I) Evicts least recently used process |
| (B) LRU (Least Recently Used)           | (II) Extends physical memory           |
| (C) C-SCAN                              | (III) Logical to physical mapping      |
| (D) Virtual Memory                      | (IV) Circular disk access              |

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723813**

Option 1 ID : **53307214849**

Option 2 ID : **53307214850**

Option 3 ID : **53307214851**

Option 4 ID : **53307214852**

Status : **Answered**

Chosen Option : **2**

**Q.95** Which of the following statements are TRUE about Process Control Block (PCB) ?

- (A) The PCB contains information about the process state, such as whether it is running, waiting or terminated
- (B) The PCB includes the program code and data segments of the process
- (C) The PCB stores the process's memory management information, such as page tables and segment tables
- (D) The PCB is used to track process scheduling information and CPU registers for process execution

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723785**

Option 1 ID : **53307214737**

Option 2 ID : **53307214738**

Option 3 ID : **53307214739**

Option 4 ID : **53307214740**

Status : **Answered**

Chosen Option : **3**

**Q.96** Arrange the following steps of Feature Drive Development (FDD) process in the correct sequence :

- (A) Develop an overall model
- (B) Build by feature
- (C) Plan by feature
- (D) Design by feature
- (E) Build a feature list

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723772**

Option 1 ID : **53307214685**

Option 2 ID : **53307214686**

Option 3 ID : **53307214687**

Option 4 ID : **53307214688**

Status : **Answered**

Chosen Option : 1

**Q.97** Match List - I with List - II.

**List - I**

**(Recurrence Relations)**

- (A)  $T(n) = 2T(n/2) + n$
- (B)  $T(n) = T(n/2) + 1$
- (C)  $T(n) = 2T(n/2) + 1$
- (D)  $T(n) = T(n-1) + 1$

**List - II**

**(Complexity)**

- (I)  $T(n) = \theta(n \log n)$  {exact solution}
- (II)  $O(n^2)$
- (III)  $T(n) = \theta(n)$  {exact solution}
- (IV)  $O(n)$

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723803**

Option 1 ID : **53307214809**

Option 2 ID : **53307214810**

Option 3 ID : **53307214811**

Option 4 ID : **53307214812**

Status : **Answered**

Chosen Option : 4

**Q.98** Match List - I with List - II.

**List - I  
(Queries)**

- (A) A bag contains 6 white and 4 red balls. Two balls are drawn at random. What is the chance, they will be the same colour ?
- (B) In a pack of 52 cards, one card is drawn at random, what is the probability that it is either a king or a queen ?
- (C) A bag contains 6 red, 4 white and 8 blue balls. If three balls are drawn at random, find the probability of 1 red and 2 white balls ?
- (D) A bag contains 6 red, 4 white and 8 blue balls. If three balls are drawn at random. Find the probability of 2 blue and 1 red balls ?

**List - II  
(Probability)**

- (I)  $3/68$
- (II)  $14/68$
- (III)  $2/3$
- (IV)  $7/15$

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723801**

Option 1 ID : **53307214801**

Option 2 ID : **53307214802**

Option 3 ID : **53307214803**

Option 4 ID : **53307214804**

Status : **Answered**

Chosen Option : **3**

**Q.99** Which of the following is correct way to declare a functional pointer in C ?

- (1) `int *func (int, int);`
- (2) `int (*func) (int, int);`
- (3) `int (func*) (int, int);`
- (4) `int *func* (int, int);`

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723745**

Option 1 ID : **53307214577**

Option 2 ID : **53307214578**

Option 3 ID : **53307214579**

Option 4 ID : **53307214580**

Status : **Answered**

Chosen Option : **2**

**Q.100** Which of the following best describes the structure of a relational database ?

- (1) Data organized into tables with rows and columns
- (2) Data organized into files and folders
- (3) Data organized into a hierarchical tree structure
- (4) Data organized into a network of interconnected nodes

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723752**

Option 1 ID : **53307214605**

Option 2 ID : **53307214606**

Option 3 ID : **53307214607**

Option 4 ID : **53307214608**

Status : **Answered**

Chosen Option : **1**

**Q.101** Which of the following tasks could be attained using syntax trees in compiler design ?

- (A) Type Checking
- (B) Code Generation
- (C) Code Optimization
- (D) Error Handling

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723792**

Option 1 ID : **53307214765**

Option 2 ID : **53307214766**

Option 3 ID : **53307214767**

Option 4 ID : **53307214768**

Status : **Answered**

Chosen Option : **3**

**Q.102** Given a project with an estimated effort of 1500 person-hours and a team of 5 people, how many days will it take to complete the project, if each person works 8 hours a day ?

- (1) 30
- (2) 37.5
- (3) 40
- (4) 45.5

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723737**

Option 1 ID : **53307214545**

Option 2 ID : **53307214546**

Option 3 ID : **53307214547**

Option 4 ID : **53307214548**

Status : **Answered**

Chosen Option : **2**



Q.103

Consider the following C code :

```
#include<stdio.h>
int temp = 0;
int fun(int x, int y)
{
    int z; temp++;
    if (y == 3) return(x*x*x);
    else {
        z = fun(x, y/3);
        return(z*z*z);
    }
}
int main()
{
    fun(4, 81);
    printf("%d", temp);
}
```

What will be the output of the above code ?

- (1) 3
- (2) 4
- (3) 5
- (4) 6

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723731**

Option 1 ID : **53307214521**

Option 2 ID : **53307214522**

Option 3 ID : **53307214523**

Option 4 ID : **53307214524**

Status : **Answered**

Chosen Option : **2**

**Q.104** Let  $P$  be "It is hot day" and  $q$  be "The temperature is  $48^{\circ}\text{C}$ ". Write in simple sentences the meaning of  $\neg p \wedge \neg q$ .

- (1) It is hot day or temprature is  $48^{\circ}\text{C}$
- (2) It is cold day or temprature is  $48^{\circ}\text{C}$
- (3) It is neither a hot day nor temprature is  $48^{\circ}\text{C}$
- (4) It is not a hot day

**Options**

1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723760**

Option 1 ID : **53307214637**

Option 2 ID : **53307214638**

Option 3 ID : **53307214639**

Option 4 ID : **53307214640**

Status : **Answered**

Chosen Option : **3**

**Q.105** Let  $L(x, y)$  be the statement " $x$  loves  $y$ " where the domain for both  $x$  and  $y$  consists of all people in the world. Use quantifiers to express "Joy is loved by everyone".

- (1)  $\forall x L(x, \text{Joy})$
- (2)  $\forall y L(\text{Joy}, y)$
- (3)  $\exists y \forall x L(x, y)$
- (4)  $\exists x \neg L(\text{Joy}, x)$

**Options**

1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723761**

Option 1 ID : **53307214641**

Option 2 ID : **53307214642**

Option 3 ID : **53307214643**

Option 4 ID : **53307214644**

Status : **Answered**

Chosen Option : **2**

**Q.106** Consider the following relations on  $\{1, 2, 3, 4\}$ . Which of the following relations are reflexive ?

- (A)  $R_1 = \{(1, 1), (1, 2), (2, 1), (2, 2), (3, 4), (4, 1), (4, 4)\}$   
(B)  $R_2 = \{(1, 1), (1, 2), (2, 1)\}$   
(C)  $R_3 = \{(1, 1), (1, 2), (1, 4), (2, 1), (2, 2), (3, 3), (4, 1), (4, 4)\}$   
(D)  $R_4 = \{(2, 1), (3, 1), (3, 2), (4, 1), (4, 2), (4, 3)\}$   
(E)  $R_5 = \{(1, 1), (1, 2), (1, 3), (1, 4), (2, 2), (2, 3), (2, 4), (3, 3), (3, 4), (4, 4)\}$

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

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

**Options** 1. 1

2. 2  
3. 3  
4. 4

Question Type : **MCQ**

Question ID : **5330723799**

Option 1 ID : **53307214793**

Option 2 ID : **53307214794**

Option 3 ID : **53307214795**

Option 4 ID : **53307214796**

Status : **Answered**

Chosen Option : **3**

**Q.107** Fifth normal form is concerned with :

- (1) Join Dependency  
(2) Domain-Key  
(3) Multivalued dependency  
(4) Functional dependency

**Options** 1. 1

2. 2  
3. 3  
4. 4

Question Type : **MCQ**

Question ID : **5330723749**

Option 1 ID : **53307214593**

Option 2 ID : **53307214594**

Option 3 ID : **53307214595**

Option 4 ID : **53307214596**

Status : **Answered**

Chosen Option : **1**

**Q.108** A coin is tossed successively three times. Find the Probability (P), Event (E), Sample space (S) of getting exactly one head or two heads, where n is number of occurrence.

(A)  $n(S) = 8$  and  $n(E) = 4$

(B)  $n(E) = 6$  and  $n(S) = 8$

(C)  $P(E) = \frac{3}{4}$

(D)  $P(E) = \frac{1}{2}$

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723782**

Option 1 ID : **53307214725**

Option 2 ID : **53307214726**

Option 3 ID : **53307214727**

Option 4 ID : **53307214728**

Status : **Answered**

Chosen Option : **3**

**Q.109** Consider the given number  $(45)_y$  where y is the base of the number. Some of the possible values of y are given below.

(A) 5

(B) 6

(C) 7

(D) 8

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723783**

Option 1 ID : **53307214729**

Option 2 ID : **53307214730**

Option 3 ID : **53307214731**

Option 4 ID : **53307214732**

Status : **Answered**

Chosen Option : **1**

**Q.110** Match List - I with List - II.

- | List - I  | List - II                                                        |
|-----------|------------------------------------------------------------------|
| (A) HTML  | (I) Allow for dynamic and interactive web pages.                 |
| (B) DHTML | (II) Defines the structure of web pages.                         |
| (C) XML   | (III) Object-oriented programming language for web applications. |
| (D) JAVA  | (IV) Used for data storage and transport.                        |

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723814**

Option 1 ID : **53307214853**

Option 2 ID : **53307214854**

Option 3 ID : **53307214855**

Option 4 ID : **53307214856**

Status : **Answered**

Chosen Option : **3**

**Q.111** Arrange the following stages of parsing in the correct order as they typically occur in the compilation process.

- (A) Lexical Analysis
- (B) Semantic Analysis
- (C) Syntax Analysis
- (D) Intermediate Code Generation
- (E) Code Optimization

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723776**

Option 1 ID : **53307214701**

Option 2 ID : **53307214702**

Option 3 ID : **53307214703**

Option 4 ID : **53307214704**

Status : **Answered**

Chosen Option : **1**

**Q.112** Let  $G(V, E)$  be an undirected graph with  $l$  edges. Then the sum of degree of all vertices is equal to \_\_\_\_\_.

- (1)  $2l$
- (2)  $l/2$
- (3)  $l^2$
- (4)  $\sqrt{l}$

**Options**

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723758**

Option 1 ID : **53307214629**

Option 2 ID : **53307214630**

Option 3 ID : **53307214631**

Option 4 ID : **53307214632**

Status : **Answered**

Chosen Option : **2**

**Q.113** \_\_\_\_\_ is a Self Balancing binary search tree, where the path from the root to the furthest leaf is no more than twice as long as the path from the root to nearest leaf.

- (1) Expression tree
- (2) Game tree
- (3) Red-Black tree
- (4) Threaded tree

**Options**

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723729**

Option 1 ID : **53307214513**

Option 2 ID : **53307214514**

Option 3 ID : **53307214515**

Option 4 ID : **53307214516**

Status : **Answered**

Chosen Option : **3**

**Q.114** Match List - I with List - II.

| List - I<br>(Algorithms)           | List - II<br>(Characteristics)                                       |
|------------------------------------|----------------------------------------------------------------------|
| (A) First Come First Served (FCFS) | (I) Each process is assigned a priority.                             |
| (B) Shortest Job First (SJF)       | (II) Ensures fair allocation of CPU time by assigning time slice.    |
| (C) Round Robin (RR)               | (III) Processes are executed in the order they arrive.               |
| (D) Priority Scheduling            | (IV) Select the process for execution with smallest next Burst time. |

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723815**

Option 1 ID : **53307214857**

Option 2 ID : **53307214858**

Option 3 ID : **53307214859**

Option 4 ID : **53307214860**

Status : **Answered**

Chosen Option : **3**

**Q.115** Which of the following are typical activities in the software process lifecycle ?

- (A) Requirement Analysis
- (B) System Design
- (C) Code Refactoring
- (D) Deployment
- (E) Substructure

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723794**

Option 1 ID : **53307214773**

Option 2 ID : **53307214774**

Option 3 ID : **53307214775**

Option 4 ID : **53307214776**

Status : **Answered**

Chosen Option : **3**



**Q.116** Which of the following are TRUE about constructors in C++ ?

- (A) A constructor can be overloaded.
- (B) A constructor does not have a return type.
- (C) A constructor must be declared as a friend function.
- (D) A constructor is called when an object is destroyed.

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723797**

Option 1 ID : **53307214785**

Option 2 ID : **53307214786**

Option 3 ID : **53307214787**

Option 4 ID : **53307214788**

Status : **Answered**

Chosen Option : **3**

**Q.117** Consider a schema  $R(P,Q,R,S)$  and the following functional dependencies  $P \rightarrow Q$ ,  $Q \rightarrow R$ ,  $R \rightarrow S$ ,  $S \rightarrow Q$ . Then decomposition of  $R_1(P,Q)$ ,  $R_2(Q,R)$  and  $R_3(Q,S)$  is :

- (1) Dependency Preserving and lossless join
- (2) Lossless Join but not dependency preserving
- (3) Dependency preserving but not lossless Join
- (4) Not dependency preserving and not lossless join

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723753**

Option 1 ID : **53307214609**

Option 2 ID : **53307214610**

Option 3 ID : **53307214611**

Option 4 ID : **53307214612**

Status : **Answered**

Chosen Option : **3**

**Q.118** Arrange the following phases of the Agile process in the correct sequence :

- (A) Design
- (B) Release
- (C) Testing
- (D) Development
- (E) Planning

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

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

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723771**

Option 1 ID : **53307214681**

Option 2 ID : **53307214682**

Option 3 ID : **53307214683**

Option 4 ID : **53307214684**

Status : **Answered**

Chosen Option : **4**

**Q.119** A class B network on the Internet has a subnet mask of 255.255.248.0, what is the maximum number of hosts per subnet ?

- (1) 1022
- (2) 1023
- (3) 2046
- (4) 2047

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723740**

Option 1 ID : **53307214557**

Option 2 ID : **53307214558**

Option 3 ID : **53307214559**

Option 4 ID : **53307214560**

Status : **Answered**

Chosen Option : **3**

Q.120

```
#include<stdio.h>
void main()
{
    int arr[ ] = {1, 2, 3, 4, 5};
    int *p = arr;
    printf("%d", *p++);
    printf(" %d", *(p+1));
}
```

Find the output of the above code?

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723730**

Option 1 ID : **53307214517**

Option 2 ID : **53307214518**

Option 3 ID : **53307214519**

Option 4 ID : **53307214520**

Status : **Answered**

Chosen Option : **4**

- Q.121** Which of the following properties correctly describe a Regular Grammar ?
- (A) All production rules are of the form  $A \rightarrow xB$  or  $A \rightarrow x$ , where A and B are non terminal symbols and x is a terminal symbol.
  - (B) Regular grammars are more powerful than context-free grammars and can express any type of language.
  - (C) There is a direct correspondence between regular grammar and finite automata.
  - (D) Regular grammars can generate languages that are not recognised by any type of automata.
- Choose the **correct** 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** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723791**

Option 1 ID : **53307214761**

Option 2 ID : **53307214762**

Option 3 ID : **53307214763**

Option 4 ID : **53307214764**

Status : **Answered**

Chosen Option : **1**

- Q.122** Consider the function in C code :

```
Cal(a, b) {  
    if (b != 1) {  
        if (a != 1) {  
            printf("*");  
            Cal(a/2, b);  
        }  
        else {  
            b = b - 1;  
            Cal(10, b);  
        }  
    }  
}
```

How many times \* is going to be printed, if the function is called with Cal(10, 10); ?

- (1) 25
- (2) 23
- (3) 24
- (4) 27

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723733**

Option 1 ID : **53307214529**

Option 2 ID : **53307214530**

Option 3 ID : **53307214531**

Option 4 ID : **53307214532**

Status : **Answered**

Chosen Option : **3**

Q.123

What is the output of code given below :

```
#include<iostream.h>
using namespace std;
class Base {
public:
Base(){
    cout<<"Base Const";
}
virtual ~Base()
{
    cout<<"Base dest";
}
};
class derived : public Base {
public:
Derived() {
    cout<<"Derived Const";
}
~Derived() {
    cout<<"Derived dest";
}
};
int main()
{
    Base *b=new Derived();
    delete b;
    return 0;
}
```

- (1) Base Const Derived Const Derived dest Base dest
- (2) Base Const Derived Const Base dest Derived dest
- (3) Derived Const Base Const Base dest Derived dest
- (4) Base Const Derived Const Base dest

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723747**

Option 1 ID : **53307214585**

Option 2 ID : **53307214586**

Option 3 ID : **53307214587**

Option 4 ID : **53307214588**

Status : **Answered**  
Chosen Option : **3**

**Q.124** If a software project has 2000 lines of code (LOC) and the average productivity rate is 10 LOC per person-hour, how many person-hours are required to complete the project ?

- (1) 100
- (2) 150
- (3) 200
- (4) 250

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**  
Question ID : **5330723735**  
Option 1 ID : **53307214537**  
Option 2 ID : **53307214538**  
Option 3 ID : **53307214539**  
Option 4 ID : **53307214540**  
Status : **Answered**  
Chosen Option : **3**

**Q.125** Consider the following if p and q are two statements.

- (A)  $\sim(p \wedge q) \equiv \sim p \vee \sim q$
- (B)  $\sim(p \vee q) \equiv \sim p \wedge \sim q$
- (C)  $p \wedge \sim p \equiv T$
- (D)  $\sim(p \Rightarrow q) \equiv p \wedge \sim q$
- (E)  $p \vee q \equiv \sim p \vee \sim q$

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

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

Options 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**  
Question ID : **5330723800**  
Option 1 ID : **53307214797**  
Option 2 ID : **53307214798**  
Option 3 ID : **53307214799**  
Option 4 ID : **53307214800**  
Status : **Answered**  
Chosen Option : **1**

Q.126

Which of the following are context free language ?

- (A)  $\{w^i x^j y^k z^l \mid i+k=j+l, \text{ where } i, j, k, l \geq 0\}$   
 (B)  $\{w^i x^j y^k z^l \mid i=j \text{ and } k=l, \text{ where } i, j, k, l \geq 0\}$   
 (C)  $\{w^i x^j y^k z^l \mid i=j=k \text{ and } k \neq l, \text{ where } i, j, k, l \geq 0\}$   
 (D)  $\{w^i x^j y^k z^l \mid i=j=k+l, \text{ where } i, j, k, l \geq 0\}$   
 (E)  $\{w^i x^j y^k z^l \mid i=j=l \text{ and } k \neq l, \text{ where } i, j, k, l \geq 0\}$

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**Question ID : **5330723781**Option 1 ID : **53307214721**Option 2 ID : **53307214722**Option 3 ID : **53307214723**Option 4 ID : **53307214724**Status : **Answered**Chosen Option : **1**

Q.127

Out the following steps in the proper sequence for simplifying a Boolean function using a Karnaugh map (K-map).

- (A) Identify and group the largest possible cluster of 1's  
 (B) Draw the K-map for the given Boolean function  
 (C) Write the simplified Boolean expression from the grouped clusters  
 (D) Transfer the truth table values to the K-map

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**Question ID : **5330723767**Option 1 ID : **53307214665**Option 2 ID : **53307214666**Option 3 ID : **53307214667**Option 4 ID : **53307214668**Status : **Answered**Chosen Option : **3**



**Q.128** A multi processor system with 16 processors is used to execute a parallelizable task. If the serial portion of the task takes 200 clock cycles and the parallel portion take 800 clock cycles. When all 16 processor are used how many total clock cycles are required to complete the task ?

- (1) 250
- (2) 300
- (3) 400
- (4) 450

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723763**

Option 1 ID : **53307214649**

Option 2 ID : **53307214650**

Option 3 ID : **53307214651**

Option 4 ID : **53307214652**

Status : **Answered**

Chosen Option : **3**

**Q.129** If  $L_1$  and  $L_2$  are context free languages, which of the following is True about  $L_1 \cap L_2$  ?

- (1)  $L_1 \cap L_2$  is context free
- (2)  $L_1 \cap L_2$  is Regular
- (3)  $L_1 \cap L_2$  is Recursively Enumerable
- (4)  $L_1 \cap L_2$  is Context Sensitive

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723728**

Option 1 ID : **53307214509**

Option 2 ID : **53307214510**

Option 3 ID : **53307214511**

Option 4 ID : **53307214512**

Status : **Answered**

Chosen Option : **3**

**Q.130** Arrange the following stages of a Turing Machine (TM) operation in the correct order as they occur during computation.

- (A) Writing a symbol on the tape
- (B) Moving the tape head left to right
- (C) Reading a symbol from the tape
- (D) Transitioning to a new state based on the current state and symbol read
- (E) Halting and accepting or rejecting the input

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723775**

Option 1 ID : **53307214697**

Option 2 ID : **53307214698**

Option 3 ID : **53307214699**

Option 4 ID : **53307214700**

Status : **Answered**

Chosen Option : **2**

**Q.131** Which of the following statements are TRUE about Privileged Instructions ?

- (A) It can only be executed by the Operating System kernel and not by user applications.
- (B) It is designed to perform operations that can directly affect the hardware or system state such as I/O operations or changing memory management setting.
- (C) User applications can execute privileged instructions if they have to correct permissions, set by the Operating System.
- (D) It usually executed in user mode to ensure the safety and security of the system.

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

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

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723786**

Option 1 ID : **53307214741**

Option 2 ID : **53307214742**

Option 3 ID : **53307214743**

Option 4 ID : **53307214744**

Status : **Answered**

Chosen Option : **2**

- Q.132** (A) In IPv4 addressing, a block of address can be define as x.y.z.t/n in which x.y.z.t define one of the address and /n define the mask  
(B) The first address in the block can be found by setting the rightmost 32-n bits to 0s  
(C) Address of class C is used for multicast communication  
(D) There are five classes in IPv4 address  
(E) Supernetting combine several networks into one large network  
Choose the **correct** answer from the options given below :
- (1) (A), (B) and (C) Only  
(2) (A), (B), (D) and (E) Only  
(3) (A), (C), (D) and (E) Only  
(4) (C), (D) and (E) Only

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : **MCQ**

Question ID : **5330723789**

Option 1 ID : **53307214753**

Option 2 ID : **53307214754**

Option 3 ID : **53307214755**

Option 4 ID : **53307214756**

Status : **Answered**

Chosen Option : **3**

- Q.133** In Software configuration management, what is the primary purpose of version control ?
- (1) To control the changes made to software  
(2) To document user requirements  
(3) To estimate project cost  
(4) To design the software architecture

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : **MCQ**

Question ID : **5330723734**

Option 1 ID : **53307214533**

Option 2 ID : **53307214534**

Option 3 ID : **53307214535**

Option 4 ID : **53307214536**

Status : **Answered**

Chosen Option : **4**

**Q.134** A vector processor with 16 lanes can perform an operation on 1024 elements with each operation taking 5 clock cycles. How many cycles are needed to complete the operation ?

- (1) 64
- (2) 80
- (3) 100
- (4) 128

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723765**

Option 1 ID : **53307214657**

Option 2 ID : **53307214658**

Option 3 ID : **53307214659**

Option 4 ID : **53307214660**

Status : **Answered**

Chosen Option : **3**

**Q.135** A CPU has a 5-stage pipeline with the following stages Fetch (F), Decode (D), Execute (E), Memory (M) and Write-back (W). Each stage takes one clock cycle to complete. Assume there are no pipeline stalls and the pipeline is initially empty. How many clock cycles are required to complete the execution of 10 instructions ?

- (1) 10
- (2) 14
- (3) 15
- (4) 19

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723764**

Option 1 ID : **53307214653**

Option 2 ID : **53307214654**

Option 3 ID : **53307214655**

Option 4 ID : **53307214656**

Status : **Answered**

Chosen Option : **2**

**Q.136** Match List - I with List - II.

| List - I<br>(Counter)    | List - II<br>(uses/working)                        |
|--------------------------|----------------------------------------------------|
| (A) N-bit Ring Counter   | (I) Uses universal clock                           |
| (B) Synchronous Counter  | (II) Counts exactly N states                       |
| (C) Asynchronous Counter | (III) Counts 0 to 9                                |
| (D) Decimal Counter      | (IV) Main clock is applied to first flip-flop only |

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723805**

Option 1 ID : **53307214817**

Option 2 ID : **53307214818**

Option 3 ID : **53307214819**

Option 4 ID : **53307214820**

Status : **Answered**

Chosen Option : **3**

**Q.137** Match List - I with List - II.

| List - I                        | List - II                                                                                                            |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------|
| (A) Natural language processing | (I) A method of training algorithm by rewarding desired behaviour and/or punishing undesired one.                    |
| (B) Reinforcement learning      | (II) System designed to emulate the decision making abilities of a human expert.                                     |
| (C) Support vector machine      | (III) A branch of AI focused on understanding and generating human language.                                         |
| (D) Expert system               | (IV) A machine learning technique that finds the hyper plane that best separates different class in a feature space. |

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : **MCQ**

Question ID : **5330723808**

Option 1 ID : **53307214829**

Option 2 ID : **53307214830**

Option 3 ID : **53307214831**

Option 4 ID : **53307214832**

Status : **Answered**

Chosen Option : **3**

**Q.138** 40 software professionals were interviewed for a job. 25 knew PYTHON 20 knew JAVA and 7 knew neither language. How many knew both languages ?

- (1) 20
- (2) 53
- (3) 10
- (4) 88

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723759**

Option 1 ID : **53307214633**

Option 2 ID : **53307214634**

Option 3 ID : **53307214635**

Option 4 ID : **53307214636**

Status : **Answered**

Chosen Option : **2**

**Q.139** How does a relational database ensure data integrity ?

- (1) By encrypting all data stored
- (2) By enforcing rules defined in the schema
- (3) By compressing data for efficient storage
- (4) By allowing unrestricted access to all users

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**

Question ID : **5330723750**

Option 1 ID : **53307214597**

Option 2 ID : **53307214598**

Option 3 ID : **53307214599**

Option 4 ID : **53307214600**

Status : **Answered**

Chosen Option : **3**

Q.140

Consider the following code :

```
#include<stdio.h>
void f1(char *x, char *y) {
    char *t1; t1 = x; x = y; y = t1;}
void f2(char **x, char **y) {
    char *t1; t1 = *x; *x = *y; *y = t1;}
int main()
{
    char *a = "ONE", *b = "TWO";
    f1(a, b); printf("%s %s", a, b);
    f2(&a, &b); printf("%s %s", a, b);
    return 0;
}
```

What will be the output of the above code?

- (1) ONE TWO TWO ONE
- (2) TWO ONE ONE TWO
- (3) ONE TWO ONE TWO
- (4) TWO ONE TWO ONE

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723743**

Option 1 ID : **53307214569**

Option 2 ID : **53307214570**

Option 3 ID : **53307214571**

Option 4 ID : **53307214572**

Status : **Answered**

Chosen Option : **3**



**Comprehension:**

Read the below passage and answer the questions .

Artificial Neural Networks (ANNs) are computational models inspired by the human brain's neural networks. They consist of inter-connected nodes, or neurons, organized into layers : an input layers, one or more hidden layers and an output layers. Each connection between neurons has a weight that adjusts as learning progresses allowing the network to adopt and improve its performance. ANNs are particularly effective in recognizing patterns making them valuable for tasks such as image and speech recognition, Natural language processing and predictive analytics. Learning in ANNs typically involves training algorithms like back propagation, which minimize the error by adjusting the weights. As a subset of machine learning, ANNs have revolutionized the field of Artificial Intelligence by providing solutions to complex problems that traditional algorithms struggle with.

**SubQuestion No : 141****Q.141**

Which of the following is/are the application area(s) of ANN ?

- (A) Natural Language Processing
- (B) Image Processing
- (C) Pattern Recognition
- (D) Speech Recognition

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

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

**Options**

- 1. 1
- 2. 2
- 3. 3
- 4. 4

**Question Type : MCQ****Question ID : 5330723821****Option 1 ID : 53307214877****Option 2 ID : 53307214878****Option 3 ID : 53307214879****Option 4 ID : 53307214880****Status : Answered****Chosen Option : 4**

**Comprehension:**

Read the below passage and answer the questions .

Artificial Neural Networks (ANNs) are computational models inspired by the human brain's neural networks. They consist of inter-connected nodes, or neurons, organized into layers : an input layers, one or more hidden layers and an output layers. Each connection between neurons has a weight that adjusts as learning progresses allowing the network to adopt and improve its performance. ANNs are particularly effective in recognizing patterns making them valuable for tasks such as image and speech recognition, Natural language processing and predictive analytics. Learning in ANNs typically involves training algorithms like back propagation, which minimize the error by adjusting the weights. As a subset of machine learning, ANNs have revolutionized the field of Artificial Intelligence by providing solutions to complex problems that traditional algorithms struggle with.

**SubQuestion No : 142**

**Q.142**

**What is the role of Back Propagation Algorithm ?**

- (1) To reduce error
- (2) To secure network
- (3) To control speed of data
- (4) To add different layers

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723817**

Option 1 ID : **53307214861**

Option 2 ID : **53307214862**

Option 3 ID : **53307214863**

Option 4 ID : **53307214864**

Status : **Answered**

Chosen Option : **4**

**Comprehension:**

Read the below passage and answer the questions .

Artificial Neural Networks (ANNs) are computational models inspired by the human brain's neural networks. They consist of inter-connected nodes, or neurons, organized into layers : an input layers, one or more hidden layers and an output layers. Each connection between neurons has a weight that adjusts as learning progresses allowing the network to adopt and improve its performance. ANNs are particularly effective in recognizing patterns making them valuable for tasks such as image and speech recognition, Natural language processing and predictive analytics. Learning in ANNs typically involves training algorithms like back propagation, which minimize the error by adjusting the weights. As a subset of machine learning, ANNs have revolutionized the field of Artificial Intelligence by providing solutions to complex problems that traditional algorithms struggle with.

**SubQuestion No : 143****Q.143**

Which of the following layers may be more than one in number ?

- (1) Input layer
- (2) Hidden layer
- (3) Output layer
- (4) Physical layer

**Options**

- 1. 1
- 2. 2
- 3. 3
- 4. 4

**Question Type : MCQ****Question ID : 5330723819****Option 1 ID : 53307214869****Option 2 ID : 53307214870****Option 3 ID : 53307214871****Option 4 ID : 53307214872****Status : Answered****Chosen Option : 2**

**Comprehension:**

Read the below passage and answer the questions .

Artificial Neural Networks (ANNs) are computational models inspired by the human brain's neural networks. They consist of inter-connected nodes, or neurons, organized into layers : an input layers, one or more hidden layers and an output layers. Each connection between neurons has a weight that adjusts as learning progresses allowing the network to adopt and improve its performance. ANNs are particularly effective in recognizing patterns making them valuable for tasks such as image and speech recognition, Natural language processing and predictive analytics. Learning in ANNs typically involves training algorithms like back propagation, which minimize the error by adjusting the weights. As a subset of machine learning, ANNs have revolutionized the field of Artificial Intelligence by providing solutions to complex problems that traditional algorithms struggle with.

**SubQuestion No : 144**

**Q.144**

Artificial Neural Networks (ANNs) are inspired by :

- (1) Quantum mechanics
- (2) Human brain's neural network
- (3) Computer Hardware architecture
- (4) Genetic algorithm

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723818**

Option 1 ID : **53307214865**

Option 2 ID : **53307214866**

Option 3 ID : **53307214867**

Option 4 ID : **53307214868**

Status : **Answered**

Chosen Option : **2**

**Comprehension:**

Read the below passage and answer the questions .

Artificial Neural Networks (ANNs) are computational models inspired by the human brain's neural networks. They consist of inter-connected nodes, or neurons, organized into layers : an input layers, one or more hidden layers and an output layers. Each connection between neurons has a weight that adjusts as learning progresses allowing the network to adopt and improve its performance. ANNs are particularly effective in recognizing patterns making them valuable for tasks such as image and speech recognition, Natural language processing and predictive analytics. Learning in ANNs typically involves training algorithms like back propagation, which minimize the error by adjusting the weights. As a subset of machine learning, ANNs have revolutionized the field of Artificial Intelligence by providing solutions to complex problems that traditional algorithms struggle with.

**SubQuestion No : 145****Q.145**

What is the role of weights in an ANN ?

- (1) To store data
- (2) To adjust and improve network performance
- (3) To control the speed
- (4) To secure the network

**Options** 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Type : **MCQ**Question ID : **5330723820**Option 1 ID : **53307214873**Option 2 ID : **53307214874**Option 3 ID : **53307214875**Option 4 ID : **53307214876**Status : **Answered**Chosen Option : **2**

**Comprehension:**

Read the below passage and answer the questions .

The Banker's Algorithm is a critical deadlock avoidance method in operating systems, designed to facilitate resource allocation without causing deadlock. It operates by maintaining information about the maximum resources. Each process may require, the current allocated resources and the available resources in the system. The algorithm checks each resource request to determine, if granting it would leave the system in a safe state, meaning that there is always a sequence in which all processes can complete their execution without getting stuck due to resource unavailability. Each process must specify its maximum demand for each resource type before it starts execution. When a process requests additional resources, the algorithm checks if granting the request will keep the system in a safe state. If so, the resources are allocated otherwise the process must wait until its request can be safely fulfilled.

**SubQuestion No : 146**

**Q.146** Which of the following is NOT a requirement for Banker's algorithm to grant a resource request ?

- (1) The requested resources must be available.
- (2) The system must be in a safe state after granting the request.
- (3) The request must not exceed the maximum resources the process can request.
- (4) The process must be the only one requesting resources.

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723825**

Option 1 ID : **53307214889**

Option 2 ID : **53307214890**

Option 3 ID : **53307214891**

Option 4 ID : **53307214892**

Status : **Answered**

Chosen Option : **1**



**Comprehension:**

Read the below passage and answer the questions .

The Banker's Algorithm is a critical deadlock avoidance method in operating systems, designed to facilitate resource allocation without causing deadlock. It operates by maintaining information about the maximum resources. Each process may require, the current allocated resources and the available resources in the system. The algorithm checks each resource request to determine, if granting it would leave the system in a safe state, meaning that there is always a sequence in which all processes can complete their execution without getting stuck due to resource unavailability. Each process must specify its maximum demand for each resource type before it starts execution. When a process requests additional resources, the algorithm checks if granting the request will keep the system in a safe state. If so, the resources are allocated otherwise the process must wait until its request can be safely fulfilled.

**SubQuestion No : 147**

**Q.147**

What is the primary goal of the Banker's Algorithm ?

- (1) To allocate resources optimally
- (2) To prevent processes from requesting resources
- (3) To detect and recover from deadlocks
- (4) To maximise CPU utilization

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723824**

Option 1 ID : **53307214885**

Option 2 ID : **53307214886**

Option 3 ID : **53307214887**

Option 4 ID : **53307214888**

Status : **Answered**

Chosen Option : **2**



**Comprehension:**

Read the below passage and answer the questions .

The Banker's Algorithm is a critical deadlock avoidance method in operating systems, designed to facilitate resource allocation without causing deadlock. It operates by maintaining information about the maximum resources. Each process may require, the current allocated resources and the available resources in the system. The algorithm checks each resource request to determine, if granting it would leave the system in a safe state, meaning that there is always a sequence in which all processes can complete their execution without getting stuck due to resource unavailability. Each process must specify its maximum demand for each resource type before it starts execution. When a process requests additional resources, the algorithm checks if granting the request will keep the system in a safe state. If so, the resources are allocated otherwise the process must wait until its request can be safely fulfilled.

**SubQuestion No : 148**

**Q.148** What information is used to determine if a resource request can be granted ?

- (1) Available resources and current allocation of each process
- (2) CPU utilization of each process
- (3) Number of processes waiting for resources
- (4) Arrival time of each process

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723823**

Option 1 ID : **53307214881**

Option 2 ID : **53307214882**

Option 3 ID : **53307214883**

Option 4 ID : **53307214884**

Status : **Answered**

Chosen Option : **1**

**Comprehension:**

Read the below passage and answer the questions .

The Banker's Algorithm is a critical deadlock avoidance method in operating systems, designed to facilitate resource allocation without causing deadlock. It operates by maintaining information about the maximum resources. Each process may require, the current allocated resources and the available resources in the system. The algorithm checks each resource request to determine, if granting it would leave the system in a safe state, meaning that there is always a sequence in which all processes can complete their execution without getting stuck due to resource unavailability. Each process must specify its maximum demand for each resource type before it starts execution. When a process requests additional resources, the algorithm checks if granting the request will keep the system in a safe state. If so, the resources are allocated otherwise the process must wait until its request can be safely fulfilled.

**SubQuestion No : 149**

**Q.149** What is the significance of the Banker's algorithm in terms of resource management ?

- (1) It ensures that all processes can finish their execution without deadlock.
- (2) It eliminates the need for processes to request resources.
- (3) It accelerates the execution of critical sections in processes.
- (4) It minimizes the number of context switches between processes.

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723826**

Option 1 ID : **53307214893**

Option 2 ID : **53307214894**

Option 3 ID : **53307214895**

Option 4 ID : **53307214896**

Status : **Answered**

Chosen Option : **4**

**Comprehension:**

Read the below passage and answer the questions .

The Banker's Algorithm is a critical deadlock avoidance method in operating systems, designed to facilitate resource allocation without causing deadlock. It operates by maintaining information about the maximum resources. Each process may require, the current allocated resources and the available resources in the system. The algorithm checks each resource request to determine, if granting it would leave the system in a safe state, meaning that there is always a sequence in which all processes can complete their execution without getting stuck due to resource unavailability. Each process must specify its maximum demand for each resource type before it starts execution. When a process requests additional resources, the algorithm checks if granting the request will keep the system in a safe state. If so, the resources are allocated otherwise the process must wait until its request can be safely fulfilled.

**SubQuestion No : 150**

**Q.150** Which data structure does the Banker's Algorithm use to maintain the state of available, maximum and allocated resources ?

- (1) Priority Queue
- (2) Hash table
- (3) Wait-for-Graph
- (4) Matrices and Vectors

**Options** 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**

Question ID : **5330723827**

Option 1 ID : **53307214897**

Option 2 ID : **53307214898**

Option 3 ID : **53307214899**

Option 4 ID : **53307214900**

Status : **Answered**

Chosen Option : **3**