

## NTA UGC NET December 2025 31st Dec to 7th Jan 2026

Application No	
Candidate Name	
Roll No.	
Test Date	02/01/2026
Test Time	9:00 AM - 12:00 PM
Subject	87 Computer Science and Applications

## Section : General Paper

## Comprehension:

Study carefully the table given below and answer the question asked here under.  
In this table, number (in thousands) of five types of products (i.e. A, B, C, D, E) manufactured against their respective year of manufacturing are given.

Year	A (in thousands)	B (in thousands)	C (in thousands)	D (in thousands)	E (in thousands)
2021	29	45	26	15	32
2022	32	52	58	26	35
2023	28	54	92	24	39
2024	26	58	86	27	34
2025	23	63	82	28	34

## SubQuestion No : 1

Q.1 Manufacturing of product D in the year 2021 is approximately less by what percent of its production in the year 2024?

1. 50 %
2. 60 %
3. 66 %
4. 44 %

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ  
Question ID : 6119872162  
Option 1 ID : 6119878417  
Option 2 ID : 6119878418  
Option 3 ID : 6119878419  
Option 4 ID : 6119878420  
Status : Answered  
Chosen Option : 4

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**Comprehension:**

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2023	28	54	92	24	39
2024	26	58	86	27	34
2025	23	63	82	28	34

**SubQuestion No : 2**

**Q.2** During which of the following years, product B has the lowest percentage of manufacturing with reference to combined manufacturing of that year?

1. 2021
2. 2022
3. 2023
4. 2024

**Options**

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

Question Type : MCQ

Question ID : 6119872161

Option 1 ID : 6119878413

Option 2 ID : 6119878414

Option 3 ID : 6119878415

Option 4 ID : 6119878416

Status : Answered

Chosen Option : 3

**Comprehension:**

Study carefully the table given below and answer the question asked here under.  
In this table, number (in thousands) of five types of products (i.e. A, B, C, D, E) manufactured against their respective year of manufacturing are given.

Year	A (in thousands)	B (in thousands)	C (in thousands)	D (in thousands)	E (in thousands)
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2024	26	58	86	27	34
2025	23	63	82	28	34

**SubQuestion No : 3**

**Q.3** If we consider the combined production of product C and E in each year, then what is the difference of their combined production in the years 2023 and 2025?

1. 10000
2. 15000
3. 5000
4. 20000

**Options**

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

Question Type : MCQ

Question ID : 6119872160

Option 1 ID : 6119878409

Option 2 ID : 6119878410

Option 3 ID : 6119878411

Option 4 ID : 6119878412

Status : Answered

Chosen Option : 2

**Comprehension:**

Study carefully the table given below and answer the question asked here under.  
In this table, number (in thousands) of five types of products (i.e. A, B, C, D, E) manufactured against their respective year of manufacturing are given.

Year	A (in thousands)	B (in thousands)	C (in thousands)	D (in thousands)	E (in thousands)
2021	29	45	26	15	32
2022	32	52	58	26	35
2023	28	54	92	24	39
2024	26	58	86	27	34
2025	23	63	82	28	34

**SubQuestion No : 4**

**Q.4** During which of the following years, manufacturing of product A was approximately equal to the average production of that year?

1. 2021
2. 2022
3. 2023
4. 2024

**Options**

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

Question Type : MCQ

Question ID : 6119872158

Option 1 ID : 6119878401

Option 2 ID : 6119878402

Option 3 ID : 6119878403

Option 4 ID : 6119878404

Status : Answered

Chosen Option : 1

**Comprehension:**

Study carefully the table given below and answer the question asked here under.  
In this table, number (in thousands) of five types of products (i.e. A, B, C, D, E) manufactured against their respective year of manufacturing are given.

Year	A (in thousands)	B (in thousands)	C (in thousands)	D (in thousands)	E (in thousands)
2021	29	45	26	15	32
2022	32	52	58	26	35
2023	28	54	92	24	39
2024	26	58	86	27	34
2025	23	63	82	28	34

**SubQuestion No : 5**

**Q.5** Manufacturing of product C in the year 2023 was approximately what percent of the total production of product B in years 2022 and 2024 together?

1. 84 %
2. 80 %
3. 90 %
4. 79 %

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872159

Option 1 ID : 6119878405

Option 2 ID : 6119878406

Option 3 ID : 6119878407

Option 4 ID : 6119878408

Status : Answered

Chosen Option : 1

Q.6 Match the LIST-I with LIST-II

	LIST-I Word		LIST-II Code
A.	CRAB	I.	32
B.	BARK	II.	49
C.	OVER	III.	24
D.	SING	IV.	60

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

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

Options

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

Question Type : MCQ

Question ID : 6119872182

Option 1 ID : 6119878497

Option 2 ID : 6119878498

Option 3 ID : 6119878499

Option 4 ID : 6119878500

Status : Answered

Chosen Option : 3

Q.7 Which of the following are TRUE:

- A. For the Cārvāka, patyakṣa is the only pramāṇa.
- B. For the Cārvāka, śabda is the only pramāṇa.
- C. For the Cārvāka, anumāna is not a pramāṇa.
- D. For the Jaina, Mati includes both perceptual and inferential knowledge.

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872187  
Option 1 ID : 6119878517  
Option 2 ID : 6119878518  
Option 3 ID : 6119878519  
Option 4 ID : 6119878520  
Status : Answered  
Chosen Option : 4

**Q.8** Match the LIST-I with LIST-II

LIST-I Source of Knowledge		LIST-II Accepted by	
A.	Yogaja Pratyakṣa	I.	Vedāntins
B.	Kevalajñāna	II.	Cārvāka
C.	Only Pratyakṣa	III.	Jaina
D.	Aparokṣānubhuti	IV.	Nyāya

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-IV, B-III, C-II, D-I

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872184

Option 1 ID : 6119878505

Option 2 ID : 6119878506

Option 3 ID : 6119878507

Option 4 ID : 6119878508

Status : Answered

Chosen Option : 4

**Q.9** Arrange the following operating systems in correct chronological order of their development

- A. Linux
- B. MS-DOS
- C. MAC OS
- D. Windows

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872192

Option 1 ID : 6119878537

Option 2 ID : 6119878538

Option 3 ID : 6119878539

Option 4 ID : 6119878540

Status : Answered

Chosen Option : 2

**Q.10** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.

**Assertion A:** The influence of mass media is rarely direct.

**Reason R:** According to Limited Effects theories, media effects are almost always mediated by group membership or relationships.

In the light of the above statements, choose the **correct** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

**Options** 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872173

Option 1 ID : 6119878461

Option 2 ID : 6119878462

Option 3 ID : 6119878463

Option 4 ID : 6119878464

Status : Answered

Chosen Option : 4

Q.11 Arrange the following fractions in descending order:

- A.  $9/11$
- B.  $8/9$
- C.  $4/7$
- D.  $3/5$
- E.  $8/15$

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

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

Options

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

Question Type : MCQ  
Question ID : 6119872180  
Option 1 ID : 6119878489  
Option 2 ID : 6119878490  
Option 3 ID : 6119878491  
Option 4 ID : 6119878492  
Status : Answered  
Chosen Option : 4

**Q.12** Match the LIST-I with LIST-II

LIST-I		LIST-II	
A.	Keyboard	I.	Memory
B.	Monitor	II.	Processor
C.	CPU	III.	Output device
D.	ROM	IV.	Input device

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872190

Option 1 ID : 6119878529

Option 2 ID : 6119878530

Option 3 ID : 6119878531

Option 4 ID : 6119878532

Status : Answered

Chosen Option : 1

**Q.13** Arrange the following in the ascending order of year of appearance beginning with the oldest.

- A. Radio
- B. Television
- C. Book
- D. Prototypical Newspaper
- E. Film

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872174

Option 1 ID : 6119878465

Option 2 ID : 6119878466

Option 3 ID : 6119878467

Option 4 ID : 6119878468

Status : Answered

Chosen Option : 3

**Q.14** Which education policy first recommended 6% of GDP as public expenditure on education in India?

1. National Policy on Education, 1968
2. National Policy on Education, 1986
3. Revised NPE-Program on Action, 1992
4. National Education Policy, 2020

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872198

Option 1 ID : 6119878561

Option 2 ID : 6119878562

Option 3 ID : 6119878563

Option 4 ID : 6119878564

Status : Answered

Chosen Option : 2

**Q.15** USB stands for \_\_\_\_\_.

1. Uniform Service Bus
2. Universal Serial Bus
3. Uniform Sector Buffer
4. Universe Service Bus

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872188

Option 1 ID : 6119878521

Option 2 ID : 6119878522

Option 3 ID : 6119878523

Option 4 ID : 6119878524

Status : Answered

Chosen Option : 2

**Q.16** Which of the following renewable energy resources contributes highest proportion to the total installed power capacity in India?

1. Solar
2. Nuclear
3. Wind
4. Hydro

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872196

Option 1 ID : 6119878553

Option 2 ID : 6119878554

Option 3 ID : 6119878555

Option 4 ID : 6119878556

Status : Answered

Chosen Option : 4

**Q.17** Match the LIST-I with LIST-II

LIST-I Types of groups in communication		LIST-II Characteristic
A.	Primary Group	I. Members interact with one another to benefit an audience
B.	Self-help Group	II. Goal is to improve members' skills
C.	Learning Group	III. Membership is based on sentiment
D.	Public Group	IV. All members have a common problem

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872175

Option 1 ID : 6119878469

Option 2 ID : 6119878470

Option 3 ID : 6119878471

Option 4 ID : 6119878472

Status : Answered

Chosen Option : 1

Q.18 Match the LIST-I with LIST-II

LIST-I Non-probability sampling		LIST-II Characteristic
A.	Snowball	I. Handpicked cases on the basis of specific usability
B.	Purposive	II. Equivalent of stratified sampling
C.	Quota	III. Choosing the nearest individuals to serve as respondents
D.	Convenience	IV. Identify other respondents with the help of initial respondents

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872169

Option 1 ID : 6119878445

Option 2 ID : 6119878446

Option 3 ID : 6119878447

Option 4 ID : 6119878448

Status : Answered

Chosen Option : 2

Q.19 In quantitative research strategy, the principal orientation to the role of theory in relation to research is

1. Inductive
2. Objectivism
3. Deductive
4. Constructionism

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872171

Option 1 ID : 6119878453

Option 2 ID : 6119878454

Option 3 ID : 6119878455

Option 4 ID : 6119878456

Status : Answered

Chosen Option : 3

Q.20 "Sound is eternal, because it is caused" commits the fallacy (hetvābhāsa) of:

1. Asiddha
2. Satpratipakṣa
3. Savyabhicāra
4. Viruddha

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872183

Option 1 ID : 6119878501

Option 2 ID : 6119878502

Option 3 ID : 6119878503

Option 4 ID : 6119878504

Status : Answered

Chosen Option : 3

Q.21 Match the LIST-I with LIST-II

LIST-I Convention/Protocol		LIST-II Related With	
A.	Montreal Protocol	I.	Global Warming
B.	Stockholm Convention	II.	Transboundary movements of hazardous waste
C.	Kyoto Protocol	III.	Ozone layer depletion
D.	Basel Convention	IV.	Persistent organic pollutants

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

1. A-I, B-II, C-III, D-IV
2. A-III, B-IV, C-I, D-II
3. A-IV, B-III, C-I, 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 : 6119872195

Option 1 ID : 6119878549

Option 2 ID : 6119878550

Option 3 ID : 6119878551

Option 4 ID : 6119878552

Status : Answered

Chosen Option : 2

**Q.22** Arrange the following intervals of standard normal variate in increasing order of probabilities.

- A.  $0 \leq Z \leq +1$
- B.  $+1 \leq Z \leq +2$
- C.  $+2 \leq Z \leq +3$
- D.  $+3 \leq Z < +\infty$

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

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

**Options** 1. 1

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

Question Type : MCQ

Question ID : 6119872170

Option 1 ID : 6119878449

Option 2 ID : 6119878450

Option 3 ID : 6119878451

Option 4 ID : 6119878452

Status : Answered

Chosen Option : 4

**Q.23** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Eutrophication leads to depletion of dissolved oxygen in a lake.

**Reason R:** Dissolved oxygen in water decreases with increase in temperature.

In the light of the above statements, choose the **most appropriate** answer from the options given below

- 1. Both A and R are correct and R is the correct explanation of A
- 2. Both A and R are correct but R is NOT the correct explanation of A
- 3. A is correct but R is not correct
- 4. A is not correct but R is correct

**Options** 1. 1

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

Question Type : MCQ

Question ID : 6119872193

Option 1 ID : 6119878541

Option 2 ID : 6119878542

Option 3 ID : 6119878543

Option 4 ID : 6119878544

Status : Answered

Chosen Option : 4

**Q.24** A person who believes that all social, political, economic and cultural change is inevitably based on the development and diffusion of technology, is a

1. Technological Determinist
2. Cultural Determinist
3. Technological Sceptic
4. Economic Determinist

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872176

Option 1 ID : 6119878473

Option 2 ID : 6119878474

Option 3 ID : 6119878475

Option 4 ID : 6119878476

Status : Answered

Chosen Option : 4

**Q.25** In everyday conversation, when people make reference to paying attention, planning, forgetting, guessing, daydreaming and so on, they are invoking:

1. Propaganda
2. Cognitive Concepts
3. Misinformation
4. Disinformation

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872177

Option 1 ID : 6119878477

Option 2 ID : 6119878478

Option 3 ID : 6119878479

Option 4 ID : 6119878480

Status : Answered

Chosen Option : 2

Q.26 Complete the following series:  
582, 581, 585, 576, 592, 567, \_\_\_\_\_

1. 601
2. 602
3. 603
4. 599

Options

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

Question Type : MCQ  
Question ID : 6119872179  
Option 1 ID : 6119878485  
Option 2 ID : 6119878486  
Option 3 ID : 6119878487  
Option 4 ID : 6119878488  
Status : Answered  
Chosen Option : 3

Q.27 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Validity can never apply to any single proposition by itself.

**Reason R:** Validity and invalidity are attribute of arguments.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both A and R are correct and R is the correct explanation of A
2. Both A and R are correct but R is NOT the correct explanation of A
3. A is correct but R is not correct
4. A is not correct but R is correct

Options

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

Question Type : MCQ  
Question ID : 6119872185  
Option 1 ID : 6119878509  
Option 2 ID : 6119878510  
Option 3 ID : 6119878511  
Option 4 ID : 6119878512  
Status : Answered  
Chosen Option : 1

**Q.28** Identify the advantages of open ended questions in survey research.

- A. It is easy to process answers.
- B. Respondents can answer in their own terms.
- C. They enhance the comparability of answers.
- D. They are useful for exploring new areas or ones in which the researcher has limited knowledge.

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

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

**Options 1. 1**

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

Question Type : MCQ  
Question ID : 6119872168  
Option 1 ID : 6119878441  
Option 2 ID : 6119878442  
Option 3 ID : 6119878443  
Option 4 ID : 6119878444  
Status : Answered  
Chosen Option : 4

**Q.29** Whether the results of a study can be generalized beyond the specific research context, refers to

- 1. reliability
- 2. replicability
- 3. internal validity
- 4. external validity

**Options 1. 1**

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

Question Type : MCQ  
Question ID : 6119872172  
Option 1 ID : 6119878457  
Option 2 ID : 6119878458  
Option 3 ID : 6119878459  
Option 4 ID : 6119878460  
Status : Answered  
Chosen Option : 2

Q.30 Choose the correct statements among the following:

- A. Diagnosis of the learners is done in Inter-Active stage of teaching.
- B. Feedback and Testing of the learners are done in Post-Active stage of teaching.
- C. Fixing up goals and content are done in Post-Active stage of teaching.
- D. Selection of appropriate testing devices is done in Post-Active stage of teaching.
- E. Decision about strategies of teaching is done in Post-Active stage of teaching.

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, B and E Only

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872163  
Option 1 ID : 6119878421  
Option 2 ID : 6119878422  
Option 3 ID : 6119878423  
Option 4 ID : 6119878424  
Status : Answered  
Chosen Option : 4

Q.31 Which of the following is NOT a programming language?

- 1. Python
- 2. C
- 3. Java
- 4. Google

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872189  
Option 1 ID : 6119878525  
Option 2 ID : 6119878526  
Option 3 ID : 6119878527  
Option 4 ID : 6119878528  
Status : Answered  
Chosen Option : 4

Q.32 Match the LIST-I with LIST-II

LIST-I		LIST-II
A.	Concept Mapping	I. Graphical tools for organizing and representing knowledge
B.	Five E based Lesson Planning	II. Constructive Approach
C.	Stimulus-response based lesson planning	III. Systematic arrangement of subject matter
D.	Unit Plan	IV. Behaviourist Approach

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872165

Option 1 ID : 6119878429

Option 2 ID : 6119878430

Option 3 ID : 6119878431

Option 4 ID : 6119878432

Status : Answered

Chosen Option : 4

Q.33 Which of the following are TRUE:

- A. For the Nyāya, knowledge of Abhāva is acquired through Anupalabdhi Pramāṇa.
- B. The Nyāya makes a distinction between Laukika and Alaukika Pratyakṣa.
- C. The Nyāya reduces Arthāpatti to Anumāna.
- D. The Nyāya accepts the validity of Upamāna as a Pramāṇa.

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

1. A and B Only
2. B and C Only
3. B, C and D Only
4. A, B, C and D

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872186

Option 1 ID : 6119878513

Option 2 ID : 6119878514

Option 3 ID : 6119878515

Option 4 ID : 6119878516

Status : Answered

Chosen Option : 1

Q.34 Match the LIST-I with LIST-II

LIST-I (Body under HECI)		LIST-II (Function)
A.	NHERC	I. Accreditation of higher education Institutions
B.	NAAC	II. Single point regulator for higher education sector
C.	HEGC	III. Formulating a national higher education qualification framework
D.	GEC	IV. Funding and financing of higher education

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ  
Question ID : 6119872202  
Option 1 ID : 6119878577  
Option 2 ID : 6119878578  
Option 3 ID : 6119878579  
Option 4 ID : 6119878580  
Status : Answered  
Chosen Option : 1

Q.35 National Education Policy 2020 has entrusted \_\_\_\_\_ with the responsibility to setup the standards of content, technology and pedagogy for online/digital teaching-learning.

1. National Educational Technology Forum
2. Central Institute of Educational Technology
3. Consortium for Educational Communication
4. Indira Gandhi National Open University

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ  
Question ID : 6119872199  
Option 1 ID : 6119878565  
Option 2 ID : 6119878566  
Option 3 ID : 6119878567  
Option 4 ID : 6119878568  
Status : Answered  
Chosen Option : 3

Q.36 Which of the following memories/storage are volatile?

- A. RAM
- B. ROM
- C. Cache
- D. SSD
- E. HDD

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

1. A, C and D Only
2. B, D and E Only
3. A and C Only
4. A and B Only

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872191  
Option 1 ID : 6119878533  
Option 2 ID : 6119878534  
Option 3 ID : 6119878535  
Option 4 ID : 6119878536  
Status : Answered  
Chosen Option : 3

Q.37 Arrange the following in ascending order of their moisture content.

- A. Trash
- B. Rubbish
- C. Refuse
- D. Garbage

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872194  
Option 1 ID : 6119878545  
Option 2 ID : 6119878546  
Option 3 ID : 6119878547  
Option 4 ID : 6119878548  
Status : Answered  
Chosen Option : 2

Q.38 The Black-foot disease is caused by the contamination of \_\_\_\_\_ in drinking water.

- 1. Arsenic
- 2. Cadmium
- 3. Mercury
- 4. Lead

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872197  
Option 1 ID : 6119878557  
Option 2 ID : 6119878558  
Option 3 ID : 6119878559  
Option 4 ID : 6119878560  
Status : Answered  
Chosen Option : 2

**Q.39** The incomes of A and B are in the ratio of 3:2 and their expenses are in the ratio of 5:3. If each of them saves Rs.3000, then A's income (in Rs.) is

1. ₹15000
2. ₹12000
3. ₹6000
4. ₹18000

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872178

Option 1 ID : 6119878481

Option 2 ID : 6119878482

Option 3 ID : 6119878483

Option 4 ID : 6119878484

Status : Answered

Chosen Option : 4

**Q.40** The SWAYAM was launched in \_\_\_\_\_.

1. 2015
2. 2017
3. 2019
4. 2020

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872166

Option 1 ID : 6119878433

Option 2 ID : 6119878434

Option 3 ID : 6119878435

Option 4 ID : 6119878436

Status : Answered

Chosen Option : 1

**Q.41** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.

**Assertion A:** Higher Education Institutions in the country with appropriate credit transfer mechanism are facilitating students to enroll themselves in pre-designed academic programmes.

**Reason R:** Academic Bank of Credits (ABC) works on the principle of multiple entry-multiple exit as well as any-time, any-where, and any-level learning.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both A and R are correct and R is the correct explanation of A
2. Both A and R are correct but R is NOT the correct explanation of A
3. A is correct but R is not correct
4. A is not correct but R is correct

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872200

Option 1 ID : 6119878569

Option 2 ID : 6119878570

Option 3 ID : 6119878571

Option 4 ID : 6119878572

Status : Answered

Chosen Option : 1

**Q.42** Identify the correct mathematical statements:

- A. A batsman makes a score of 87 runs in the 17<sup>th</sup> inning and thus increases his average by 3. Then his average after 17<sup>th</sup> inning is 36.
- B. The value of a number subtracted from Numerator and Denominator of the fraction 6/7 to get a fraction equal to 3/4 is 3.
- C. If 15% of 40 is greater than 25% of a number by 2, then the number is 16.
- D. The value of  $(1+1/2)(1+1/3)(1+1/4) \dots (1+1/120)$  is 60.5

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

1. B, C and D Only
2. B and C Only
3. C and D Only
4. A and B Only

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872181

Option 1 ID : 6119878493

Option 2 ID : 6119878494

Option 3 ID : 6119878495

Option 4 ID : 6119878496

Status : Answered

Chosen Option : 4

**Q.43** Which of the following is NOT the criticism of behaviourist model of teaching?

1. It doesn't take into account important internal processes that take place in mind.
2. It is not appropriate for higher order learning.
3. It is not appropriate for lower order learning.
4. Learning is sometimes beyond the association between stimulus and response.

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872167

Option 1 ID : 6119878437

Option 2 ID : 6119878438

Option 3 ID : 6119878439

Option 4 ID : 6119878440

Status : Answered

Chosen Option : 3

**Q.44** Arrange the following phrases in the vision of National Education Policy, 2020 in the correct sequence of their appearance:

- A. A conscious awareness of one's roles and responsibilities in a changing world
- B. An education system rooted in Indian Ethos
- C. Developing a deep sense of respect towards the fundamental duties and constitutional values
- D. Transforming Bharat into an equitable and vibrant knowledge society
- E. Instilling among learners a deep-rooted pride in being Indian

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872201

Option 1 ID : 6119878573

Option 2 ID : 6119878574

Option 3 ID : 6119878575

Option 4 ID : 6119878576

Status : Answered

Chosen Option : 1

Q.45 Arrange the educational objectives of cognitive domain from lower order to higher order skills.

- A. Evaluation
- B. Synthesis
- C. Analysis
- D. Knowledge
- E. Comprehension

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872164

Option 1 ID : 6119878425

Option 2 ID : 6119878426

Option 3 ID : 6119878427

Option 4 ID : 6119878428

Status : Answered

Chosen Option : 2

**Comprehension:**

Read the passage given below and answer the questions 46-50:

The use of the term dharma for law, nevertheless, was neither universal nor inevitable. This is borne out by the first century C.E. author Kautilya's compendium *Treatise on Politics* (Arthashastra). The significance of Kautilya's work for the history of law in India rests primarily on the fact that it provides a different and in many respects unique lens into that history. His treatise belongs to a distinct scholarly tradition with social and political priorities different from those represented by the science of dharma (dharmaśāstra), the primary discipline devoted to jurisprudential reflection within the Brahmanical scholastic tradition. Kautilya makes no attempt to reduce the variety of laws within society into the single category of dharma. Indeed, we do not find a single comprehensive term within the *Treatise on Politics* to refer to law as such, or even to the broad areas of religious and secular norms covered by the term dharma within the discourse of the science of dharma. What is clear, however, is that Kautilya, both formally and in *obiter dicta*, argues for the plurality of law; law is not one but multiple. Although his text is later than the earliest documents of the science of dharma, it nevertheless taps into an alternate intellectual history that probably ran parallel to the one represented by the science of dharma.

**SubQuestion No : 46**

**Q.46** The work of Kautilya is of significance because:

1. It works as a complete view of the history of law.
2. It works as an alternate view of the history of law in India.
3. It works as a scholar's view that is identical to the science of dharma.
4. It works as a perspective that fits into contemporary ideas on dharma of his time.

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ  
Question ID : 6119872205  
Option 1 ID : 6119878585  
Option 2 ID : 6119878586  
Option 3 ID : 6119878587  
Option 4 ID : 6119878588  
Status : Answered  
Chosen Option : 2



**Comprehension:**

Read the passage given below and answer the questions 46-50:

The use of the term dharma for law, nevertheless, was neither universal nor inevitable. This is borne out by the first century C.E. author Kautilya's compendium *Treatise on Politics* (Arthashastra). The significance of Kautilya's work for the history of law in India rests primarily on the fact that it provides a different and in many respects unique lens into that history. His treatise belongs to a distinct scholarly tradition with social and political priorities different from those represented by the science of dharma (dharmaśāstra), the primary discipline devoted to jurisprudential reflection within the Brahmanical scholastic tradition. Kautilya makes no attempt to reduce the variety of laws within society into the single category of dharma. Indeed, we do not find a single comprehensive term within the *Treatise on Politics* to refer to law as such, or even to the broad areas of religious and secular norms covered by the term dharma within the discourse of the science of dharma. What is clear, however, is that Kautilya, both formally and in *obiter dicta*, argues for the plurality of law; law is not one but multiple. Although his text is later than the earliest documents of the science of dharma, it nevertheless taps into an alternate intellectual history that probably ran parallel to the one represented by the science of dharma.

**SubQuestion No : 47**

**Q.47** In simple terms, the first line of the given passage means:

1. There was nothing unavoidable or locally acceptable about the use of the word 'law' for 'dharma', anyway.
2. There was nothing inevitable or meaningful about the use of the word 'dharma' for law, anyway.
3. There was nothing unavoidable or globally acceptable about the use of the word 'dharma' for 'law', anyway.
4. There was nothing permanent or unavoidable about the use of the word 'dharma' for law, anyway.

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ  
Question ID : 6119872204  
Option 1 ID : 6119878581  
Option 2 ID : 6119878582  
Option 3 ID : 6119878583  
Option 4 ID : 6119878584  
Status : Answered  
Chosen Option : 3

**Adda247**

**Comprehension:**

Read the passage given below and answer the questions 46-50:

The use of the term dharma for law, nevertheless, was neither universal nor inevitable. This is borne out by the first century C.E. author Kautilya's compendium *Treatise on Politics* (Arthashastra). The significance of Kautilya's work for the history of law in India rests primarily on the fact that it provides a different and in many respects unique lens into that history. His treatise belongs to a distinct scholarly tradition with social and political priorities different from those represented by the science of dharma (dharmaśāstra), the primary discipline devoted to jurisprudential reflection within the Brahmanical scholastic tradition. Kautilya makes no attempt to reduce the variety of laws within society into the single category of dharma. Indeed, we do not find a single comprehensive term within the *Treatise on Politics* to refer to law as such, or even to the broad areas of religious and secular norms covered by the term dharma within the discourse of the science of dharma. What is clear, however, is that Kautilya, both formally and in *obiter dicta*, argues for the plurality of law; law is not one but multiple. Although his text is later than the earliest documents of the science of dharma, it nevertheless taps into an alternate intellectual history that probably ran parallel to the one represented by the science of dharma.

**SubQuestion No : 48**

**Q.48** Which of the following is concerned primarily with jurisprudential reflection according to Brahmanical scholastic tradition?

1. Arthashastra
2. Nitisastra
3. Dharmaśāstra
4. Treatise on Politics

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872208

Option 1 ID : 6119878597

Option 2 ID : 6119878598

Option 3 ID : 6119878599

Option 4 ID : 6119878600

Status : Answered

Chosen Option : 4

**Adda247**

**Comprehension:**

Read the passage given below and answer the questions 46-50:

The use of the term dharma for law, nevertheless, was neither universal nor inevitable. This is borne out by the first century C.E. author Kautilya's compendium *Treatise on Politics* (Arthashastra). The significance of Kautilya's work for the history of law in India rests primarily on the fact that it provides a different and in many respects unique lens into that history. His treatise belongs to a distinct scholarly tradition with social and political priorities different from those represented by the science of dharma (dharmaśāstra), the primary discipline devoted to jurisprudential reflection within the Brahmanical scholastic tradition. Kautilya makes no attempt to reduce the variety of laws within society into the single category of dharma. Indeed, we do not find a single comprehensive term within the *Treatise on Politics* to refer to law as such, or even to the broad areas of religious and secular norms covered by the term dharma within the discourse of the science of dharma. What is clear, however, is that Kautilya, both formally and in *obiter dicta*, argues for the plurality of law; law is not one but multiple. Although his text is later than the earliest documents of the science of dharma, it nevertheless taps into an alternate intellectual history that probably ran parallel to the one represented by the science of dharma.

**SubQuestion No : 49**

**Q.49** The passage tells the reader that Kautilya "makes no attempt to reduce the variety of laws within society to the single category of dharma". This demonstrates his argument for the \_\_\_\_\_ of law.

1. Plurality
2. Jurisprudence
3. Scientific View
4. Scholastic base

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ  
Question ID : 6119872207  
Option 1 ID : 6119878593  
Option 2 ID : 6119878594  
Option 3 ID : 6119878595  
Option 4 ID : 6119878596  
Status : Answered  
Chosen Option : 1



**Comprehension:**

Read the passage given below and answer the questions 46-50:

The use of the term dharma for law, nevertheless, was neither universal nor inevitable. This is borne out by the first century C.E. author Kautilya's compendium *Treatise on Politics* (Arthashastra). The significance of Kautilya's work for the history of law in India rests primarily on the fact that it provides a different and in many respects unique lens into that history. His treatise belongs to a distinct scholarly tradition with social and political priorities different from those represented by the science of dharma (dharmaśāstra), the primary discipline devoted to jurisprudential reflection within the Brahmanical scholastic tradition. Kautilya makes no attempt to reduce the variety of laws within society into the single category of dharma. Indeed, we do not find a single comprehensive term within the *Treatise on Politics* to refer to law as such, or even to the broad areas of religious and secular norms covered by the term dharma within the discourse of the science of dharma. What is clear, however, is that Kautilya, both formally and in *obiter dicta*, argues for the plurality of law; law is not one but multiple. Although his text is later than the earliest documents of the science of dharma, it nevertheless taps into an alternate intellectual history that probably ran parallel to the one represented by the science of dharma.

**SubQuestion No : 50**

**Q.50** The word "comprehensive" in the passage can be replaced by the word \_\_\_\_\_.

1. alternative
2. intriguing
3. amazing
4. all-embracing

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ  
Question ID : 6119872206  
Option 1 ID : 6119878589  
Option 2 ID : 6119878590  
Option 3 ID : 6119878591  
Option 4 ID : 6119878592  
Status : Answered  
Chosen Option : 1

Section : Computer Science and Applications

**Q.51** Match the LIST-I with LIST-II

LIST-I	LIST-II
A. Dynamic programming	I. Floyd Warshall Shortest path
B. Greedy	II. Huffman coding
C. Back tracking	III. Hamiltonian cycle problem
D. Branch and bound	IV. Travelling salesman (TSP) using lower bound

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872255

Option 1 ID : 6119878785

Option 2 ID : 6119878786

Option 3 ID : 6119878787

Option 4 ID : 6119878788

Status : Answered

Chosen Option : 3

**Q.52** Match the LIST-I with LIST-II

LIST-I	LIST-II
A. Class diagram	I. subset
B. Package diagram	II. relationship
C. Object diagram	III. dependencies
D. Component diagram	IV. static structure

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

1. A-II, B-III, C-IV, D-I
2. A-IV, B-I, C-III, D-II
3. A-IV, B-I, C-II, 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 : 6119872237

Option 1 ID : 6119878713

Option 2 ID : 6119878714

Option 3 ID : 6119878715

Option 4 ID : 6119878716

Status : Answered

Chosen Option : 4

Q.53 Consider the following statements about reinforcement learning.

- A. The adaptive dynamic programming agent leaves the transition model between states utilizes to solve the corresponding Markov decision process using dynamic programming.
- B. Temporal difference needs a transition model to perform its updates.
- C. The prioritized sweeping heuristic focuses on adjusting states with successors that have undergone significant changes in utility estimates.
- D. The approach of modified policy iteration involves adopting a simplified value utility estimates following each change to the learned model.

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

1. A, B & C Only
2. A, B & D Only
3. A, C & D Only
4. B, C & D Only

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872282

Option 1 ID : 6119878893

Option 2 ID : 6119878894

Option 3 ID : 6119878895

Option 4 ID : 6119878896

Status : Answered

Chosen Option : 3

Q.54 Which of the following are limitations of Greedy algorithms?

- A. They always fail for NP hard problem.
- B. They may not give the optimal solution for all problems.
- C. They are faster than dynamic programming in most cases
- D. They make local choices without looking ahead.

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872254

Option 1 ID : 6119878781

Option 2 ID : 6119878782

Option 3 ID : 6119878783

Option 4 ID : 6119878784

Status : Answered

Chosen Option : 4

Q.55 Which of the following statements are True?

- A. The `++` operator can be overloaded to perform decrementation of a variable.
- B. It is necessary that a constructor in a class should always be public.
- C. Size of an object is equal to sum of sizes of data members and member functions within the class.
- D. A static data member is useful when all objects of a class are to share a common item of information.
- E. The `this` pointer always contains the address of the object using which the member function is being called.

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872225  
Option 1 ID : 6119878665  
Option 2 ID : 6119878666  
Option 3 ID : 6119878667  
Option 4 ID : 6119878668  
Status : Answered  
Chosen Option : 4

Q.56 A phase of a compiler which produce the symbol table is

1. Syntax analysis
2. Semantic analysis
3. Target code generation
4. Code optimization

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872258  
Option 1 ID : 6119878797  
Option 2 ID : 6119878798  
Option 3 ID : 6119878799  
Option 4 ID : 6119878800  
Status : Answered  
Chosen Option : 1

**Q.57** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Thrashing occurs when a process spends more time on paging than executing.

**Reason R:** It happens when the degree of multiprogramming is too low and frames are insufficient.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872240

Option 1 ID : 6119878725

Option 2 ID : 6119878726

Option 3 ID : 6119878727

Option 4 ID : 6119878728

Status : Answered

Chosen Option : 3

**Q.58** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Kruskal's algorithm and Prim's algorithm always produce minimum spanning tree (MST).

**Reason R:** Every connected graph has a unique MST.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872251

Option 1 ID : 6119878769

Option 2 ID : 6119878770

Option 3 ID : 6119878771

Option 4 ID : 6119878772

Status : Answered

Chosen Option : 3

**Q.59** Which of the following statement are true for link state routing

- A. Link state Routing is suffer from count-to-infinity problem.
- B. Link state Routing uses flooding in the network to distribute link state packets.
- C. Each router creates its own link state packet.
- D. Every router has exactly the same link state database.
- E. Each router finds its own shortest paths to the other routers by using distance vector routing.

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

1. A & E Only
2. B, C & D Only
3. A, B, C & D Only
4. A, B & E Only

**Options** 1. 1

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

Question Type : MCQ

Question ID : 6119872269

Option 1 ID : 6119878841

Option 2 ID : 6119878842

Option 3 ID : 6119878843

Option 4 ID : 6119878844

Status : Answered

Chosen Option : 4

**Q.60** If a transaction  $t_a$  holds a lock on some data item  $d$  in shared and intention-exclusive (SIX) mode, then which of the following is true for another transaction  $t_b$ ?

- 1.  $t_b$  can lock  $d$  in shared (S) mode
- 2.  $t_b$  can lock  $d$  in exclusive (X) mode
- 3.  $t_b$  can lock  $d$  in intention-exclusive (IX) mode
- 4.  $t_b$  can lock  $d$  in intention-shared (IS) mode

**Options** 1. 1

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

Question Type : MCQ

Question ID : 6119872230

Option 1 ID : 6119878685

Option 2 ID : 6119878686

Option 3 ID : 6119878687

Option 4 ID : 6119878688

Status : Answered

Chosen Option : 1

**Q.61** In relation to Index structures for files which of the following are true?

- A. An index is an integral part of the data file.
- B. An index can be created in conjunction with virtually any primary record organization.
- C. An index cannot be created dynamically.
- D. An index can be used to enforce a key constraint on an attribute.
- E. An index can be created dynamically.

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

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

**Options 1. 1**

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

Question Type : MCQ

Question ID : 6119872235

Option 1 ID : 6119878705

Option 2 ID : 6119878706

Option 3 ID : 6119878707

Option 4 ID : 6119878708

Status : Answered

Chosen Option : 3

**Q.62** Arrange the following events in correct order when an interrupt occurs during instruction execution.

- A. Save program counter (PC) and status register.
- B. Fetch interrupt vector from memory.
- C. Execute the interrupted instruction completely.
- D. Transfer control to interrupt service routine (ISR).
- E. Restore PC and register after ISR.

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

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

**Options 1. 1**

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

Question Type : MCQ

Question ID : 6119872290

Option 1 ID : 6119878925

Option 2 ID : 6119878926

Option 3 ID : 6119878927

Option 4 ID : 6119878928

Status : Answered

Chosen Option : 1

**Q.63** Consider a disk queue with requests for I/O to blocks on cylinders 98, 183, 37, 122, 14, 124, 65, 67 in that order. If the disk head is initially at cylinder 53. Using SSTF scheduling. Arrange the following movement of head position in order of transversal.

- A. 67
- B. 37
- C. 65
- D. 98
- E. 14

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872241

Option 1 ID : 6119878729

Option 2 ID : 6119878730

Option 3 ID : 6119878731

Option 4 ID : 6119878732

Status : Answered

Chosen Option : 2

**Q.64** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.

**Assertion A:** Asymmetric key cryptography is significant slower than symmetric key cryptography.

**Reason R:** Asymmetric key cryptography is based on complex mathematical structure to secure data.

In the light of the above statements, choose the **most appropriate** answer from the options given below

- 1. Both A and R are correct and R is the correct explanation of A
- 2. Both A and R are correct but R is NOT the correct explanation of A
- 3. A is correct but R is not correct
- 4. A is not correct but R is correct

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872271

Option 1 ID : 6119878849

Option 2 ID : 6119878850

Option 3 ID : 6119878851

Option 4 ID : 6119878852

Status : Answered

Chosen Option : 1

Q.65 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** The order of the group  $(Z_5, \times)$  divides the order of the group  $(Z_{13}, \times)$

**Reason R:** The order of a subgroup of a group divides the order of the group.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872211

Option 1 ID : 6119878609

Option 2 ID : 6119878610

Option 3 ID : 6119878611

Option 4 ID : 6119878612

Status : Answered

Chosen Option : 1

Q.66 Match the LIST-I with LIST-II

LIST-I		LIST-II
A. Short term scheduler	I.	Determine which process are added to the system for execution level place them in ready queue.
B. Medium term scheduler	II.	Select which process should be executed next and allocate CPU time.
C. Long term scheduler	III.	Manage the degree of multi programming by swapping processes between main memory and disk storage
D. I/O Scheduler	IV.	Order the input/output requests from processes waiting for I/O operations.

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872243

Option 1 ID : 6119878737

Option 2 ID : 6119878738

Option 3 ID : 6119878739

Option 4 ID : 6119878740

Status : Answered

Chosen Option : 3

**Q.67** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** 1-persistent CSMA provides low delay under low load conditions.

**Reason R:** When the channel is free, stations transmits immediately without any random delay, ensuring quick access and minimal delay.

In the light of the above statements, choose the *most appropriate* answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872272

Option 1 ID : 6119878853

Option 2 ID : 6119878854

Option 3 ID : 6119878855

Option 4 ID : 6119878856

Status : Answered

Chosen Option : 1

**Q.68** What is a superblock object represents in virtual file system of Linux OS

1. an open file
2. an entire file system
3. individual directory entry
4. an individual file

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872238

Option 1 ID : 6119878717

Option 2 ID : 6119878718

Option 3 ID : 6119878719

Option 4 ID : 6119878720

Status : Answered

Chosen Option : 4

Q.69 Arrange the following steps of Natural Language Processing pipeline in correct order

- A. Syntax Analysis
- B. Morphological Analysis
- C. Pragmatics
- D. Semantic analysis.

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ  
Question ID : 6119872285  
Option 1 ID : 6119878905  
Option 2 ID : 6119878906  
Option 3 ID : 6119878907  
Option 4 ID : 6119878908  
Status : Answered  
Chosen Option : 2

**Q.70** Arrange the following interframe time interval in increasing order.

- A. PIFS(PCF interframe Spacing)
- B. DIFS(DCF interframe Spacing)
- C. SIFS(Short interframe Spacing)
- D. EIFS (Extended interframe Spacing)

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872275  
Option 1 ID : 6119878865  
Option 2 ID : 6119878866  
Option 3 ID : 6119878867  
Option 4 ID : 6119878868  
Status : Answered  
Chosen Option : 4

**Q.71** In artificial intelligence, the term "Turing Test" is primarily associated with:

- 1. Testing neural network convergence
- 2. Measuring computational efficiency of algorithm
- 3. Evaluating machine ability to exhibit human-like behavior.
- 4. Verifying correctness of AI search algorithm

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872280  
Option 1 ID : 6119878885  
Option 2 ID : 6119878886  
Option 3 ID : 6119878887  
Option 4 ID : 6119878888  
Status : Answered  
Chosen Option : 3

Q.72 Dialog control is a function of the which layer

1. Network Layer
2. Transport Layer
3. Session Layer
4. Presentation Layer

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872267

Option 1 ID : 6119878833

Option 2 ID : 6119878834

Option 3 ID : 6119878835

Option 4 ID : 6119878836

Status : Answered

Chosen Option : 4

Q.73 Which of the following statements are true if universe of discourse for all variables consist of all integers?

- A.  $\forall n \exists m (n^2 < m)$
- B.  $\exists n \exists m (n+m = 4 \wedge n-m = 2)$
- C.  $\exists n \exists m (n^2 + m^2 = 5)$
- D.  $\exists m \forall n (m+n = 0)$
- E.  $\forall m \exists n (m+n = 0)$

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

1. A, B & C Only
2. A, B, C & D Only
3. A, B, C & E Only
4. B, C, E & D Only

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872213

Option 1 ID : 6119878617

Option 2 ID : 6119878618

Option 3 ID : 6119878619

Option 4 ID : 6119878620

Status : Answered

Chosen Option : 4

Q.74 Which of the following statements about DFS are correct?

- A. It can detect cycles in a graph
- B. It can be used to find connected components.
- C. It works for both directed and undirected graph.
- D. Guarantees shortest path in unweighted graphs.

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

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

Options

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

Question Type : MCQ

Question ID : 6119872253

Option 1 ID : 6119878777

Option 2 ID : 6119878778

Option 3 ID : 6119878779

Option 4 ID : 6119878780

Status : Answered

Chosen Option : 4

**Q.75** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** In supervised learning, the model is trained using labelled data.

**Reason R:** Supervised learning algorithms find patterns in data to predict outcomes without any prior knowledge of the correct output.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872287

Option 1 ID : 6119878913

Option 2 ID : 6119878914

Option 3 ID : 6119878915

Option 4 ID : 6119878916

Status : Answered

Chosen Option : 1

**Q.76** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Higher cyclomatic complexity indicates a more complex program.

**Reason R:** It is calculated based on the number of independent execution path in the program.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872295

Option 1 ID : 6119878945

Option 2 ID : 6119878946

Option 3 ID : 6119878947

Option 4 ID : 6119878948

Status : Answered

Chosen Option : 3

Q.77 Arrange the following sequence related to FASTUS system:

- A. Basic-group handling
- B. Structure merging
- C. Tokenization
- D. Complex phrase handling
- E. Complex word handling

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872284  
Option 1 ID : 6119878901  
Option 2 ID : 6119878902  
Option 3 ID : 6119878903  
Option 4 ID : 6119878904  
Status : Answered  
Chosen Option : 1

Q.78 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Unsupervised learning algorithms are used for tasks like data summarization and exploratory data analysis.

**Reason R:** Unsupervised learning requires labelled dataset to find relationships and patterns in data.

In the light of the above statements, choose the *most appropriate* answer from the options given below

1. Both A and R are correct and R is the correct explanation of A
2. Both A and R are correct but R is NOT the correct explanation of A
3. A is correct but R is not correct
4. A is not correct but R is correct

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872281

Option 1 ID : 6119878889

Option 2 ID : 6119878890

Option 3 ID : 6119878891

Option 4 ID : 6119878892

Status : Answered

Chosen Option : 1

Q.79 Match the LIST-I with LIST-II

LIST-I		LIST-II
A. Definite clause	I.	Forward Chaining
B. Horn Clause	II.	At most one is positive literals
C. Goal Clause	III.	No positive literals
D. Inference with Horn clause	IV.	Exactly one is positive literals

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

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

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872289

Option 1 ID : 6119878921

Option 2 ID : 6119878922

Option 3 ID : 6119878923

Option 4 ID : 6119878924

Status : Answered

Chosen Option : 2

**Q.80** If the set  $S = \left\{ \begin{pmatrix} a & 0 \\ 0 & b \end{pmatrix} : a, b \in \mathbb{Z} \right\}$  is subring of the ring  $M_2$  of  $2 \times 2$  matrices over the integers then  $S$  is a

1. left ideal but not right ideal.
2. right ideal but not left ideal.
3. both left and right ideal.
4. neither left ideal nor right ideal.

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872210

Option 1 ID : 6119878605

Option 2 ID : 6119878606

Option 3 ID : 6119878607

Option 4 ID : 6119878608

Status : Answered

Chosen Option : 1

**Q.81** Arrange the following steps of the Map reduce framework

- A. Input Splitting
- B. Reducing
- C. Mapping
- D. Shuffling & Sorting

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872232

Option 1 ID : 6119878693

Option 2 ID : 6119878694

Option 3 ID : 6119878695

Option 4 ID : 6119878696

Status : Answered

Chosen Option : 1

Q.82 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:**  $L = \{a^n b^n c^n : n \geq 0\}$  is accepted by a linear bounded automata.

**Reason R:** Linear bounded automata's recognize exactly the class of context sensitive languages.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872260

Option 1 ID : 6119878805

Option 2 ID : 6119878806

Option 3 ID : 6119878807

Option 4 ID : 6119878808

Status : Answered

Chosen Option : 1

Q.83 A normalized matrix that maps a 3D window specified by coordinates (1, 1, 1) and (4, 5, 6) on to a viewport specified by coordinates (2, 4, 2) and (8, 10, 8) is

1. 
$$\begin{bmatrix} 2 & 0 & 0 & 0 \\ 0 & \frac{3}{2} & 0 & \frac{5}{2} \\ 0 & 2 & 0 & 2 \\ 0 & 0 & \frac{6}{5} & \frac{4}{5} \\ 0 & 0 & \frac{5}{5} & \frac{5}{5} \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

2. 
$$\begin{bmatrix} 2 & 0 & 0 & 0 \\ 0 & 3 & 0 & 5 \\ 0 & 0 & 6 & 4 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

3. 
$$\begin{bmatrix} 2 & 1 & 0 & 1 \\ 1 & 3 & 4 & 5 \\ 0 & 0 & 2 & 4 \\ 0 & 1 & 0 & 0 \end{bmatrix}$$

4. 
$$\begin{bmatrix} 1 & 0 & 0 & 1 \\ 2 & 3 & 0 & 5 \\ 1 & 0 & 4 & 5 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Options 1. 1

2. 2

3. 3

4. 4

Question Type : MCQ

Question ID : 6119872219

Option 1 ID : 6119878641

Option 2 ID : 6119878642

Option 3 ID : 6119878643

Option 4 ID : 6119878644

Status : Answered

Chosen Option : 3

Q.84 Match the LIST-I with LIST-II

LIST-I	LIST-II
A. 190.10.75.250	I. Class E IP address
B. 230.41.10.20	II. Class B IP address
C. 242.9.20.80	III. Class A IP address
D. 127.10.125.230	IV. Class D IP address

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872273

Option 1 ID : 6119878857

Option 2 ID : 6119878858

Option 3 ID : 6119878859

Option 4 ID : 6119878860

Status : Answered

Chosen Option : 3

Q.85 Arrange the following steps for Pulse Code Modulation (PCM).

- A. Sampling
- B. Low-Pass filter
- C. Encoding
- D. Quantization

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872276  
Option 1 ID : 6119878869  
Option 2 ID : 6119878870  
Option 3 ID : 6119878871  
Option 4 ID : 6119878872  
Status : Answered  
Chosen Option : 3

**Q.86** In a multi-agent system(MAS), what are the key characteristics of individual agents?

- A. They must be identical in their capabilities and goals.
- B. They are autonomous and act independently.
- C. They interact with each other and their environment.
- D. They are controlled by a single, centralized authority at all times.

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

1. A, B & C Only
2. B, C & D Only
3. B & D Only
4. A & D Only

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872283  
Option 1 ID : 6119878897  
Option 2 ID : 6119878898  
Option 3 ID : 6119878899  
Option 4 ID : 6119878900  
Status : Answered  
Chosen Option : 2

**Q.87** The inorder and preorder traversal of binary tree are d, b, e, a, f, c, g and a, b, d, e, c, f, g respectively. The postorder traversal of the binary tree is

1. d, e, b, f, g, c, a
2. e, d, b, g, f, c, a
3. e, d, b, f, g, c, a
4. d, e, f, g, b, c, a

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872245  
Option 1 ID : 6119878745  
Option 2 ID : 6119878746  
Option 3 ID : 6119878747  
Option 4 ID : 6119878748  
Status : Answered  
Chosen Option : 1

Q.88 Which of the following is FALSE?

1. Every field is an integral domain.
2. Every integral domain is field
3. Finite integral domain is field.
4. The ring  $Z_p$  of integers module p is field iff p is prime.

Options

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

Question Type : MCQ

Question ID : 6119872209

Option 1 ID : 6119878601

Option 2 ID : 6119878602

Option 3 ID : 6119878603

Option 4 ID : 6119878604

Status : Answered

Chosen Option : 2

Q.89 Match the LIST-I with LIST-II

LIST-I	LIST-II
A. Expert systems	I. Medical Diagnosis
B. NLP	II. Text Summarization
C. Computer Vision	III. Image Classification
D. ML	IV. Predictive Analysis

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

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

Options

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

Question Type : MCQ

Question ID : 6119872288

Option 1 ID : 6119878917

Option 2 ID : 6119878918

Option 3 ID : 6119878919

Option 4 ID : 6119878920

Status : Answered

Chosen Option : 1

Q.90 Match the LIST-I with LIST-II

LIST-I		LIST-II
Grammar		All productions are of the form
A. Regular Grammar	I.	$A \rightarrow aX$ , where $a \in T$ and $X \in V^*$
B. Unrestricted Grammar	II.	$A \rightarrow xB$ , $A \rightarrow x$ or $A \rightarrow Bx$ , $A \rightarrow x$ where $A, B \in V$ and $x \in T^*$
C. Chomsky Normal Form	III.	$x \rightarrow y$ , where $x \in (VUT)^+$ and $y \in (VUT)^*$
D. Greibach Normal Form	IV.	$A \rightarrow BC$ or $A \rightarrow a$ , where $A, B, C$ are in $V$ and $a$ is in $T$ .

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872266

Option 1 ID : 6119878829

Option 2 ID : 6119878830

Option 3 ID : 6119878831

Option 4 ID : 6119878832

Status : Answered

Chosen Option : 1

Q.91 Match the LIST-I with LIST-II

LIST-I		LIST-II
A. Dijkstra's Algorithm	I.	GPS route finding
B. Huffman Coding	II.	Data compression
C. KMP string matching	III.	Text editor search function
D. Ford-Fulkerson	IV.	Network bandwidth optimization

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872256

Option 1 ID : 6119878789

Option 2 ID : 6119878790

Option 3 ID : 6119878791

Option 4 ID : 6119878792

Status : Answered

Chosen Option : 3

Q.92 Which of the following languages cannot be accepted by push down automata?

- A.  $L = \{ a^n b^n c^n : n \geq 0 \}$
- B.  $L = \{ a^p : p \text{ is Prime} \}$
- C.  $L = \{ w c w^R : w \in (a, b)^* \}$
- D.  $L = \{ w \in (a, b)^* : n_a(w) = n_b(w) \}$
- E.  $L = \{ a^n b^m c^{n+m} : n \geq 0, m \geq 0 \}$

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872264  
Option 1 ID : 6119878821  
Option 2 ID : 6119878822  
Option 3 ID : 6119878823  
Option 4 ID : 6119878824  
Status : Answered  
Chosen Option : 2

Q.93 Which logic is designed to address the problem of referential opacity in propositional attitudes?

- 1. Regular Logic
- 2. Modal Logic
- 3. First-order logic
- 4. Predicate logic

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872278  
Option 1 ID : 6119878877  
Option 2 ID : 6119878878  
Option 3 ID : 6119878879  
Option 4 ID : 6119878880  
Status : Answered  
Chosen Option : 2

Q.94 Match the LIST-I with LIST-II

LIST-I		LIST-II
A. System Call	I.	A process requests a function that is located in a different computer system
B. Preemption	II.	A request that a program makes to the operating system.
C. Real time application	III.	The forced deallocation of the CPU from a process.
D. Remote procedure call	IV.	A program that responds to activities in an external within a maximum time determined by the external system.

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-IV, B-III, C-II, D-I
4. A-II, B-III, C-I, D-IV

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872244

Option 1 ID : 6119878741

Option 2 ID : 6119878742

Option 3 ID : 6119878743

Option 4 ID : 6119878744

Status : Answered

Chosen Option : 2

Q.95 Let P and Q be two regular expressions over  $\Sigma$ . If P does not contain  $\epsilon$ , then the following equation in R namely,

$$R = Q + RP$$

has a unique solution given by,

1.  $R = Q^* P^*$
2.  $R = Q P^*$
3.  $R = P Q^*$
4.  $R = Q^* + P^* R$

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872257

Option 1 ID : 6119878793

Option 2 ID : 6119878794

Option 3 ID : 6119878795

Option 4 ID : 6119878796

Status : Answered

Chosen Option : 2

**Q.96** Consider B<sup>+</sup> tree in which the maximum number of keys in a node is 5. What is the minimum number of keys in any non-root node?

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

Options

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

Question Type : MCQ

Question ID : 6119872247

Option 1 ID : 6119878753

Option 2 ID : 6119878754

Option 3 ID : 6119878755

Option 4 ID : 6119878756

Status : Answered

Chosen Option : 1

**Q.97** Which of the following are characteristics of RISC architecture:

- A. Large instruction set with many addressing modes.
- B. Fixed instruction length.
- C. Emphasis on software rather than hardware.
- D. Simple instruction that execute in one cycle.

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

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

Options

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

Question Type : MCQ

Question ID : 6119872291

Option 1 ID : 6119878929

Option 2 ID : 6119878930

Option 3 ID : 6119878931

Option 4 ID : 6119878932

Status : Answered

Chosen Option : 3

**Q.98** What is the space complexity of the CYK algorithm for the P table, where n is the number of words in the sentence and m is the number of non terminal symbols in the grammar?

1.  $O(n^3)$
2.  $O(nm^2)$
3.  $O(n^2m)$
4.  $O(n^2m^2)$

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872279

Option 1 ID : 6119878881

Option 2 ID : 6119878882

Option 3 ID : 6119878883

Option 4 ID : 6119878884

Status : Answered

Chosen Option : 1

**Q.99** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.

**Assertion A:** Depth first search can be used to perform a topological sort of a directed acyclic graph.

**Reason R:** A topological sort of a directed acyclic graph  $G = (V, E)$  is a linear ordering of its vertices such that if  $G$  contains an edge  $(u, v)$  then  $u$  appears before  $v$  in the ordering.

In the light of the above statements, choose the *most appropriate* answer from the options given below

1. Both A and R are correct and R is the correct explanation of A
2. Both A and R are correct but R is NOT the correct explanation of A
3. A is correct but R is not correct
4. A is not correct but R is correct

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872252

Option 1 ID : 6119878773

Option 2 ID : 6119878774

Option 3 ID : 6119878775

Option 4 ID : 6119878776

Status : Answered

Chosen Option : 1

Q.100 If  $r_1$  and  $r_2$  are regular expressions, then which of the following are correct.

- A.  $L(r_1 + r_2) = L(r_1) \cup L(r_2)$
- B.  $L(r_1 \cdot r_2) = L(r_1) L(r_2)$
- C.  $L((r_1)) = L(r_1)$
- D.  $L(r_1^*) = (L(r_1))^*$

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872263  
Option 1 ID : 6119878817  
Option 2 ID : 6119878818  
Option 3 ID : 6119878819  
Option 4 ID : 6119878820  
Status : Answered  
Chosen Option : 3

Q.101 Arrange the following prefix expressions in ascending order on the basis of their values.

- A.  $- * 2 / 8 4 3$
- B.  $\uparrow - * 3 6 * 4 2 5$
- C.  $+ - \uparrow 3 2 \uparrow 2 3 / 6 - 4 2$
- D.  $* + 3 + 3 \uparrow 3 + 1 1 3$

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872216  
Option 1 ID : 6119878629  
Option 2 ID : 6119878630  
Option 3 ID : 6119878631  
Option 4 ID : 6119878632  
Status : Answered  
Chosen Option : 2

Q.102 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.

**Assertion A:** Instruction pipelining improves CPU throughput.

**Reason R:** Pipelining decreases the execution time of each individual instruction.

In the light of the above statements, choose the **most appropriate** answer from the options given below

- 1. Both A and R are correct and R is the correct explanation of A
- 2. Both A and R are correct but R is NOT the correct explanation of A
- 3. A is correct but R is not correct
- 4. A is not correct but R is correct

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872293  
Option 1 ID : 6119878937  
Option 2 ID : 6119878938  
Option 3 ID : 6119878939  
Option 4 ID : 6119878940  
Status : Answered  
Chosen Option : 3

**Q.103** Specialization process does not allow

1. to define a set of sub classes of an entity type.
2. to establish additional specific attributes with each subclass.
3. to define a generalized entity type from the given entity types.
4. to establish additional specific relationship types between each subclass and other entity types or other subclasses.

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872229

Option 1 ID : 6119878681

Option 2 ID : 6119878682

Option 3 ID : 6119878683

Option 4 ID : 6119878684

Status : Answered

Chosen Option : 3

**Q.104** Match the LIST-I with LIST-II

LIST-I	LIST-II
A. SMTP	I. Application layer
B. BGP	II. Transport layer
C. TCP	III. Data Link Layer
D. PPP	IV. Network Layer

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

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

**Options** 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872274

Option 1 ID : 6119878861

Option 2 ID : 6119878862

Option 3 ID : 6119878863

Option 4 ID : 6119878864

Status : Answered

Chosen Option : 4

Q.105 Which statements are true for digital to digital Encoding schemes.

- A. Unipolar encoding uses one level of value.
- B. Unipolar encoded signal contains a direct current component(a component with zero frequency)
- C. In NRZ- L, the level of the signal is dependent upon the state of the bit.
- D. In NRZ-I, the signal is not inverted of a 1 is an encountered.
- E. RZ encoding scheme removes both DC components and problem of synchronization.

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

1. A, B, C & E Only
2. A, C, D & E Only
3. B, C, D & E Only
4. A, B, D & E Only

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872270

Option 1 ID : 6119878845

Option 2 ID : 6119878846

Option 3 ID : 6119878847

Option 4 ID : 6119878848

Status : Answered

Chosen Option : 2

Q.106 Which of the following statements are true.

- A. Painters' algorithm is also called depth sort algorithm.
- B. Gourad shading is an interpolating shading method.
- C. Gourad shading is an averaging shading method.
- D. The Z-buffer algorithm finds the largest depth value Z.

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872226  
Option 1 ID : 6119878669  
Option 2 ID : 6119878670  
Option 3 ID : 6119878671  
Option 4 ID : 6119878672  
Status : Answered  
Chosen Option : 1

Q.107 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** HDFS follows a master-slave architecture with Name Node and Data Nodes.

**Reason R:** Name Node stores metadata, while Data Nodes store actual data blocks.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872234

Option 1 ID : 6119878701

Option 2 ID : 6119878702

Option 3 ID : 6119878703

Option 4 ID : 6119878704

Status : Answered

Chosen Option : 1

Q.108 Match the LIST-I with LIST-II

LIST-I		LIST-II	
A. Address resolution protocol	I. Map physical address to IP address		
B. Reverse address resolution protocol	II. Used by host and router to send notification of datagram problem back to the sender.		
C. Internet control message protocol	III. Help a multi-cast router identify host in a LAN		
D. Internet Group message protocol	IV. Map IP address to physical address.		

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872292

Option 1 ID : 6119878933

Option 2 ID : 6119878934

Option 3 ID : 6119878935

Option 4 ID : 6119878936

Status : Answered

Chosen Option : 4

Q.109 Match the LIST-I with LIST-II

LIST-I	LIST-II
A. V-Model	I. Trigger transition
B. Incremental process model	II. Classic life cycle
C. Spiral Model	III. Risk Driven
D. Concurrent Model	IV. Core product

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872298

Option 1 ID : 6119878957

Option 2 ID : 6119878958

Option 3 ID : 6119878959

Option 4 ID : 6119878960

Status : Answered

Chosen Option : 4

Q.110 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.**Assertion A:** We can build an object from a class containing a pure virtual function.**Reason R:** A class containing a pure virtual function is called an abstract class.In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both A and R are correct and R is the correct explanation of A
2. Both A and R are correct but R is NOT the correct explanation of A
3. A is correct but R is not correct
4. A is not correct but R is correct

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872222

Option 1 ID : 6119878653

Option 2 ID : 6119878654

Option 3 ID : 6119878655

Option 4 ID : 6119878656

Status : Answered

Chosen Option : 1

**Q.111** If  $K_n$  is complete simple graph of  $n$  vertices and  $K_{m,n}$  is complete bipartite graph then arrange the following non-planer graph in ascending order on the bases of the minimum number of crossings.

- A.  $K_6$
- B.  $K_7$
- C.  $K_{4,4}$
- D.  $K_{5,5}$

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

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

**Options**

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

Question Type : MCQ

Question ID : 6119872215

Option 1 ID : 6119878625

Option 2 ID : 6119878626

Option 3 ID : 6119878627

Option 4 ID : 6119878628

Status : Answered

Chosen Option : 1

Q.112 Which of the followings logical implications are tautology?

- A.  $[\neg p \wedge (p \vee q)] \rightarrow q$
- B.  $\neg p \rightarrow (p \rightarrow q)$
- C.  $[p \wedge (p \rightarrow q)] \rightarrow q$
- D.  $\neg(p \rightarrow q) \rightarrow q$

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872214  
Option 1 ID : 6119878621  
Option 2 ID : 6119878622  
Option 3 ID : 6119878623  
Option 4 ID : 6119878624  
Status : Answered  
Chosen Option : 2

Q.113 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** OLAP systems are optimized for complex queries and analysis.

**Reason R:** OLTP systems are designed for transactions processing with large read-only queries.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872231

Option 1 ID : 6119878689

Option 2 ID : 6119878690

Option 3 ID : 6119878691

Option 4 ID : 6119878692

Status : Answered

Chosen Option : 3

Q.114 Arrange the following in the order of execution while proving a Language is non-Regular using Pumping Lemma.

- A. Split in to xyz satisfying pumping Lemma conditions.
- B. Assume the language is regular.
- C. Choose a string of length  $\geq$  pumping length.
- D. Show contradiction when pumping y.

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872261

Option 1 ID : 6119878809

Option 2 ID : 6119878810

Option 3 ID : 6119878811

Option 4 ID : 6119878812

Status : Answered

Chosen Option : 3

Q.115 Which of the following is correct order of increasing time complexity of algorithms

- A. Tower of Hanoi with n disk.
- B. Binary search given n sorted numbers.
- C. Heap sort given n numbers at the worst case.
- D. Addition of two  $n \times n$  matrices.

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872249  
Option 1 ID : 6119878761  
Option 2 ID : 6119878762  
Option 3 ID : 6119878763  
Option 4 ID : 6119878764  
Status : Answered  
Chosen Option : 3

Q.116 Which of the following statements are correct?

- A. The HAVING CLAUSE is an optional clause which tells Oracle to group rows based on distinct values that exist for specified columns.
- B. Unions can be used in subqueries.
- C. The intersect clause outputs only rows produced by both the queries intersected.
- D. The statement containing a subquery is called a parent statement.
- E. If a select statement is defined as a subquery, the innermost select statement gets executed first.

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872236  
Option 1 ID : 6119878709  
Option 2 ID : 6119878710  
Option 3 ID : 6119878711  
Option 4 ID : 6119878712  
Status : Answered  
Chosen Option : 3

Q.117 Which of the following is correct solution of the given recurrence relation?  $T(n) = 3T(n/4) + n \log n$

1.  $\Theta(n \log n)$
2.  $\Theta(n^2 \log n)$
3.  $\Theta(n (\log n)^2)$
4.  $\Theta(n \log \log n)$

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872246

Option 1 ID : 6119878749

Option 2 ID : 6119878750

Option 3 ID : 6119878751

Option 4 ID : 6119878752

Status : Answered

Chosen Option : 1

Q.118 Match the LIST-I with LIST-II

LIST-I		LIST-II	
Name of Methods		Problem Type	
A. Branch and bound method	I. Integer Programming Problem		
B. The North-west corner rule	II. Quadratic Programming Problem		
C. Lagrange Multiplier Method	III. Transportation Problem		
D. Wolfe's Modified Method	IV. Non-Linear programming problem		

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

1. A-III, B-II, C-IV, D-I
2. A-I, B-III, C-IV, D-II
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 : 6119872218

Option 1 ID : 6119878637

Option 2 ID : 6119878638

Option 3 ID : 6119878639

Option 4 ID : 6119878640

Status : Answered

Chosen Option : 1

Q.119 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** The control points have only local control over the shape of the B-Splines.

**Reason R:** Bezier curves do have local control.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ

Question ID : 6119872221

Option 1 ID : 6119878649

Option 2 ID : 6119878650

Option 3 ID : 6119878651

Option 4 ID : 6119878652

Status : Answered

Chosen Option : 4

Q.120 Arrange the following WebApp design layers from top to bottom:

- A. Navigation design
- B. Aesthetic Design
- C. Interface Design
- D. Content Design
- E. Performance Design

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872294  
Option 1 ID : 6119878941  
Option 2 ID : 6119878942  
Option 3 ID : 6119878943  
Option 4 ID : 6119878944  
Status : Answered  
Chosen Option : 4

Q.121 How many number of comparison are required in worst case to find out second smallest element of  $n$  elements list?

- 1.  $n + \lceil \log n \rceil - 1$
- 2.  $n + \lceil \log n \rceil$
- 3.  $\lceil \log n \rceil$
- 4.  $n + \lceil \log n \rceil - 2$

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872248  
Option 1 ID : 6119878757  
Option 2 ID : 6119878758  
Option 3 ID : 6119878759  
Option 4 ID : 6119878760  
Status : Answered  
Chosen Option : 1

**Q.122** Consider the following set of processes assumed to have arrived at time 0 in order  $P_1, P_2, P_3, P_4$  and  $P_5$  with the length of CPU burst given in Milliseconds.

Process	Burst Time	Priority
$P_1$	10	3
$P_2$	1	1
$P_3$	2	4
$P_4$	1	5
$P_5$	5	2

What is the average waiting time (in milliseconds) using priority scheduling.

1. 8
2. 8.2
3. 8.3
4. 8.4

**Options**

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

Question Type : MCQ

Question ID : 6119872239

Option 1 ID : 6119878721

Option 2 ID : 6119878722

Option 3 ID : 6119878723

Option 4 ID : 6119878724

Status : Answered

Chosen Option : 3

**Q.123** In transactions, a write-item (X) command includes the following steps. Arrange the following steps in correct sequence.

- A. Copy item X from the program variable named X into its correct location in the buffer.
- B. Store the updated block from the buffer back to disk.
- C. Find the address of the disk block that contains item.
- D. Copy that disk block into a buffer in main memory.

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

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

**Options**

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

Question Type : MCQ

Question ID : 6119872233

Option 1 ID : 6119878697

Option 2 ID : 6119878698

Option 3 ID : 6119878699

Option 4 ID : 6119878700

Status : Answered

Chosen Option : 1

**Q.124** Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Let  $R \subseteq A \times A$  be a binary relation as defined below:

$A = \mathbb{N} \times \mathbb{N}$ ;  $((a,b), (c,d)) \in R$  if and only if  $a \leq c$  or  $b \leq d$ . This binary relation  $R$  is a partial order.

**Reason R:** A binary relation will be a partial order if it satisfies reflexive, anti-symmetric and transitive properties.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872212

Option 1 ID : 6119878613

Option 2 ID : 6119878614

Option 3 ID : 6119878615

Option 4 ID : 6119878616

Status : Answered

Chosen Option : 2

**Q.125** Which of the following is not true about constructor

1. When an object is created and initialized at the same time, a copy constructor gets called.
2. They do not have return types, not even void.
3. They can be virtual.
4. They can not be inherited, though a derived class can call the base class constructor.

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872220

Option 1 ID : 6119878645

Option 2 ID : 6119878646

Option 3 ID : 6119878647

Option 4 ID : 6119878648

Status : Answered

Chosen Option : 2

**Q.126** Assume a signal travels through a transmission medium and its power is reduced to one-half of means  $P_2 = \frac{1}{2} P_1$ . What is the power loss in attenuation?

- 1. -6 db
- 2. -3 db
- 3. -1.5 db
- 4. -1 db

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872268

Option 1 ID : 6119878837

Option 2 ID : 6119878838

Option 3 ID : 6119878839

Option 4 ID : 6119878840

Status : Answered

Chosen Option : 1

**Q.127** Which of the following is correct about Real time operating system.

- A. It permits creation of multiple processes within an application.
- B. It does not permit priorities to be assigned to processes.
- C. It permits a programmer to define interrupts and interrupt processing routines.
- D. It does not uses priority driver or deadline oriented scheduling.
- E. It provides fault tolerance and graceful degradation capabilities.

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872242

Option 1 ID : 6119878733

Option 2 ID : 6119878734

Option 3 ID : 6119878735

Option 4 ID : 6119878736

Status : Answered

Chosen Option : 1

Q.128 Arrange the following algorithms from the most efficient to least efficient based on their time complexity.

- A. Kruskal's Algorithm
- B. Breadth first search Algorithm
- C. Bellman-Ford Algorithm
- D. Dijkstra's Algorithm
- E. Edmonds-Karp Algorithm.

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872250

Option 1 ID : 6119878765

Option 2 ID : 6119878766

Option 3 ID : 6119878767

Option 4 ID : 6119878768

Status : Answered

Chosen Option : 1

Q.129 Match the LIST-I with LIST-II

LIST-I	LIST-II
A. Content coupling	I. Modifies internal data of another component
B. Control Coupling	II. Pass control flag to influence logic
C. Stamp Coupling	III. Uses entire structure/class as argument
D. Data Coupling	IV. Passes long list of data arguments.

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872297

Option 1 ID : 6119878953

Option 2 ID : 6119878954

Option 3 ID : 6119878955

Option 4 ID : 6119878956

Status : Answered

Chosen Option : 4

## Q.130 Match the LIST-I with LIST-II

LIST-I	LIST-II
file mode parameters	Meaning
A. ios::ate	I. Go to end of file on opening
B. ios::in	II. Open fails if the file already exists.
C. ios::nocreate	III. Open file for reading only
D. ios::noreplace	IV. Open fails if the file does not exist.

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872228

Option 1 ID : 6119878677

Option 2 ID : 6119878678

Option 3 ID : 6119878679

Option 4 ID : 6119878680

Status : Answered

Chosen Option : 4

## Q.131 Match the LIST-I with LIST-II

LIST-I	LIST-II
Input	Compiler Phase
A. Syntax Tree	I. Code Generator
B. Character Stream	II. Syntax Analyzer
C. Intermediate Representation	III. Semantic Analyzer
D. Token Stream	IV. Lexical Analyzer

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

1. A-II, B-III, C-IV, D-I
2. A-III, B-IV, C-I, D-II
3. A-III, B-I, C-IV, 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 : 6119872265

Option 1 ID : 6119878825

Option 2 ID : 6119878826

Option 3 ID : 6119878827

Option 4 ID : 6119878828

Status : Answered

Chosen Option : 2

Q.132 Which of the following statements are correct regarding task elaboration in interface design.

- A. Alpha testing is done at the developer's site in a controlled environment.
- B. Beta testing is done at the end-user site with developer presence.
- C. Acceptance testing may be very formal and last for weeks.
- D. Alpha testing always replaces Beta testing.

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

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

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872296  
Option 1 ID : 6119878949  
Option 2 ID : 6119878950  
Option 3 ID : 6119878951  
Option 4 ID : 6119878952  
Status : Answered  
Chosen Option : 1

Q.133 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** If  $L$  is regular, then its compliment  $L'$  is necessarily regular.

**Reason R:** Complement of a language can be obtained by swapping final and non-final states in a DFA.

In the light of the above statements, choose the **most appropriate** answer from the options given below

- 1. Both A and R are correct and R is the correct explanation of A
- 2. Both A and R are correct but R is NOT the correct explanation of A
- 3. A is correct but R is not correct
- 4. A is not correct but R is correct

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872259  
Option 1 ID : 6119878801  
Option 2 ID : 6119878802  
Option 3 ID : 6119878803  
Option 4 ID : 6119878804  
Status : Answered  
Chosen Option : 3

Q.134 Which planning approach is used for environment with no observations?

1. Hierarchical planning
2. Reactive planning
3. Conformant planning
4. Contingency Planning

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ  
Question ID : 6119872277  
Option 1 ID : 6119878873  
Option 2 ID : 6119878874  
Option 3 ID : 6119878875  
Option 4 ID : 6119878876  
Status : Answered  
Chosen Option : 3

Q.135 Arrange the following applet life cycles methods in sequence

- A. start()
- B. paint()
- C. init()
- D. stop()

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ  
Question ID : 6119872224  
Option 1 ID : 6119878661  
Option 2 ID : 6119878662  
Option 3 ID : 6119878663  
Option 4 ID : 6119878664  
Status : Answered  
Chosen Option : 2

Q.136 Match the LIST-I with LIST-II : BOOLEAN IDENTITIES

LIST-I		LIST-II	
Name		Identity	
A. Domination law	I.	$x + 1 = 1$	
B. Associative law	II.	$x + (yz) = (x + y)(x + z)$	
C. Distributive law	III.	$x + xy = x$	
D. Absorption law	IV.	$x + (y + z) = (x + y) + z$	

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872217

Option 1 ID : 6119878633

Option 2 ID : 6119878634

Option 3 ID : 6119878635

Option 4 ID : 6119878636

Status : Answered

Chosen Option : 3

Q.137 Match the LIST-I with LIST-II

LIST-I		LIST-II	
Quadric surfaces		Equation	
A. One-sheeted hyperboloid	I.	$\frac{x^2}{a^2} + \frac{y^2}{b^2} = cz$	
B. Two-sheeted hyperboloid	II.	$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$	
C. Elliptic paraboloid	III.	$\frac{x^2}{a^2} - \frac{y^2}{b^2} = cz$	
D. Hyperbolic paraboloid	IV.	$\frac{z^2}{c^2} - \frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$	

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-II, B-IV, C-I, D-III
4. A-IV, B-II, C-I, D-III

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872227

Option 1 ID : 6119878673

Option 2 ID : 6119878674

Option 3 ID : 6119878675

Option 4 ID : 6119878676

Status : Answered

Chosen Option : 2

Q.138 Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.

**Assertion A:** Neural networks are capable of approximating any continuous function to an arbitrary degree of accuracy.

**Reason R:** This is explained by the universal approximation theorem.

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872286

Option 1 ID : 6119878909

Option 2 ID : 6119878910

Option 3 ID : 6119878911

Option 4 ID : 6119878912

Status : Answered

Chosen Option : 1

Q.139 Arrange the following tasks of Lexical Analyzer in correct sequence:

- A. Token Generation.
- B. Removal of comments/White space.
- C. Buffering and reading source characters.
- D. Return token stream to parser.

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

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

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872262

Option 1 ID : 6119878813

Option 2 ID : 6119878814

Option 3 ID : 6119878815

Option 4 ID : 6119878816

Status : Answered

Chosen Option : 3

Q.140 For implicit type conversion, arrange the following from a lower size type to a high type size.

- A. double
- B. unsigned long int
- C. unsigned int
- D. long double
- E. long int

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

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

Options 1. 1

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

Question Type : MCQ

Question ID : 6119872223

Option 1 ID : 6119878657

Option 2 ID : 6119878658

Option 3 ID : 6119878659

Option 4 ID : 6119878660

Status : Answered

Chosen Option : 1

**Comprehension:**

A project is planned for an enterprise accounting system with an estimated size 60 KLOC. The organization applies Basic COCOMO(Semi-Detached Mode with parameters:)

--Effort =  $3.0 \text{ (KLOC)}^{1.0}$

--Development time =  $2.5 \text{ (Effort)}^{1/2}$

--Average cost per person-month (pm) = \$10,000

--A contingency margin of 10% effort is mandatory

-- The client demands a detailed schedule if staff is capped at 15 engineers.

Answer the following 5 questions based on this paragraph.

**SubQuestion No : 141**

**Q.141** What is the estimated development time in months?

1. 28 Months
2. 26 Months
3. 34 Months
4. 12 Months

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872301

Option 1 ID : 6119878965

Option 2 ID : 6119878966

Option 3 ID : 6119878967

Option 4 ID : 6119878968

Status : Answered

Chosen Option : 2

**Comprehension:**

A project is planned for an enterprise accounting system with an estimated size 60 KLOC. The organization applies Basic COCOMO(Semi-Detached Mode with parameters:)

--Effort =  $3.0 \text{ (KLOC)}^{1.0}$

--Development time =  $2.5 \text{ (Effort)}^{1/2}$

--Average cost per person-month (pm) = \$10,000

--A contingency margin of 10% effort is mandatory

-- The client demands a detailed schedule if staff is capped at 15 engineers.

Answer the following 5 questions based on this paragraph.

**SubQuestion No : 142**

**Q.142** Including 10% contingency margin what is the project cost?

1. \$ 1.80 M
2. \$ 1.98 M
3. \$ 2.4 M
4. \$ 2.36 M

**Options**

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

**Question Type : MCQ**

Question ID : 6119872304

Option 1 ID : 6119878977

Option 2 ID : 6119878978

Option 3 ID : 6119878979

Option 4 ID : 6119878980

Status : Answered

Chosen Option : 4

**Comprehension:**

A project is planned for an enterprise accounting system with an estimated size 60 KLOC. The organization applies Basic COCOMO(Semi-Detached Mode with parameters:)

- Effort =  $3.0 \text{ (KLOC)}^{1.0}$
- Development time =  $2.5 \text{ (Effort)}^{1/2}$
- Average cost per person-month (pm) = \$10,000
- A contingency margin of 10% effort is mandatory
- The client demands a detailed schedule if staff is capped at 15 engineers.

Answer the following 5 questions based on this paragraph.

**SubQuestion No : 143****Q.143** What is the implied average staffing level?

1. 8 Engineers
2. 5 Engineers
3. 10 Engineers
4. 12 Engineers

Options 1. 1

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

Question Type : MCQ  
Question ID : 6119872302  
Option 1 ID : 6119878969  
Option 2 ID : 6119878970  
Option 3 ID : 6119878971  
Option 4 ID : 6119878972  
Status : Answered  
Chosen Option : 4

**Comprehension:**

A project is planned for an enterprise accounting system with an estimated size 60 KLOC. The organization applies Basic COCOMO(Semi-Detached Mode with parameters:)

--Effort =  $3.0 \text{ (KLOC)}^{1.0}$

--Development time =  $2.5 \text{ (Effort)}^{1/2}$

--Average cost per person-month (pm) = \$10,000

--A contingency margin of 10% effort is mandatory

-- The client demands a detailed schedule if staff is capped at 15 engineers.

Answer the following 5 questions based on this paragraph.

**SubQuestion No : 144**

**Q.144** If the staff is capped at 15 engineers what is the revised calendar duration?

1. 20.0 Months
2. 18.4 Months
3. 13.2 Months
4. 22.0 Months

Options 1. 1

2. 2  
3. 3  
4. 4

Question Type : MCQ  
Question ID : 6119872303  
Option 1 ID : 6119878973  
Option 2 ID : 6119878974  
Option 3 ID : 6119878975  
Option 4 ID : 6119878976  
Status : Answered  
Chosen Option : 1



**Comprehension:**

A project is planned for an enterprise accounting system with an estimated size 60 KLOC. The organization applies Basic COCOMO(Semi-Detached Mode with parameters:)

--Effort =  $3.0 \text{ (KLOC)}^{1.0}$

--Development time =  $2.5 \text{ (Effort)}^{1/2}$

--Average cost per person-month (pm) = \$10,000

--A contingency margin of 10% effort is mandatory

-- The client demands a detailed schedule if staff is capped at 15 engineers.

Answer the following 5 questions based on this paragraph.

**SubQuestion No : 145**

**Q.145** What is the initial effort in Person-month (PM) before adding the contingency margin?

1. 240 PM
2. 260 PM
3. 180 PM
4. 200 PM

**Options 1. 1**

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872300

Option 1 ID : 6119878961

Option 2 ID : 6119878962

Option 3 ID : 6119878963

Option 4 ID : 6119878964

Status : Answered

Chosen Option : 1

**Comprehension:**

A system transfers data blocks of 2000 bytes with programmed I/O, each byte transfer takes 6 CPU cycles, with direct memory access (DMA), the block transfer takes 3000 cycles total, with CPU setup overhead of 200 cycles. The CPU clock is 1 GHz. Answer the following 5 questions based on this paragraph.

**SubQuestion No : 146**

**Q.146** How much CPU time is consumed by programmed I/O ?

1. 12  $\mu$ s
2. 20  $\mu$ s
3. 24  $\mu$ s
4. 30  $\mu$ s

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872308

Option 1 ID : 6119878989

Option 2 ID : 6119878990

Option 3 ID : 6119878991

Option 4 ID : 6119878992

Status : Answered

Chosen Option : 4

**Comprehension:**

A system transfers data blocks of 2000 bytes with programmed I/O, each byte transfer takes 6 CPU cycles, with direct memory access (DMA), the block transfer takes 3000 cycles total, with CPU setup overhead of 200 cycles. The CPU clock is 1 GHz. Answer the following 5 questions based on this paragraph.

**SubQuestion No : 147****Q.147** How much CPU time is consumed by DMA overhead?

1. 0.2  $\mu$ s
2. 2.0  $\mu$ s
3. 3.0  $\mu$ s
4. 12.0  $\mu$ s

**Options**

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

Question Type : MCQ

Question ID : 6119872309

Option 1 ID : 6119878993

Option 2 ID : 6119878994

Option 3 ID : 6119878995

Option 4 ID : 6119878996

Status : Answered

Chosen Option : 3

**Comprehension:**

A system transfers data blocks of 2000 bytes with programmed I/O, each byte transfer takes 6 CPU cycles, with direct memory access (DMA), the block transfer takes 3000 Cycles total, with CPU setup overhead of 200 cycles. The CPU clock is 1 GHZ. Answer the following 5 questions based on this paragraph.

**SubQuestion No : 148****Q.148** How many CPU cycles are spent with DMA?

1. 200 Cycles
2. 3000 Cycles
3. 3200 Cycles
4. 4000 Cycles

Options 1. 1

2. 2
3. 3
4. 4

Question Type : MCQ

Question ID : 6119872307

Option 1 ID : 6119878985

Option 2 ID : 6119878986

Option 3 ID : 6119878987

Option 4 ID : 6119878988

Status : Answered

Chosen Option : 1

**Comprehension:**

A system transfers data blocks of 2000 bytes with programmed I/O, each byte transfer takes 6 CPU cycles, with direct memory access (DMA), the block transfer takes 3000 cycles total, with CPU setup overhead of 200 cycles. The CPU clock is 1 GHZ. Answer the following 5 questions based on this paragraph.

**SubQuestion No : 149****Q.149** Which is more CPU-efficient for large block transfer?

1. Programmed I/O
2. DMA
3. Both programmed I/O and DMA
4. Depends on block size

Options

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

Question Type : MCQ

Question ID : 6119872310

Option 1 ID : 6119878997

Option 2 ID : 6119878998

Option 3 ID : 6119878999

Option 4 ID : 6119879000

Status : Answered

Chosen Option : 2

**Comprehension:**

A system transfers data blocks of 2000 bytes with programmed I/O, each byte transfer takes 6 CPU cycles, with direct memory access (DMA), the block transfer takes 3000 Cycles total, with CPU setup overhead of 200 cycles. The CPU clock is 1 GHZ. Answer the following 5 questions based on this paragraph.

**SubQuestion No : 150****Q.150** How many CPU cycles are spent using programmed I/O?

1. 2000
2. 6000
3. 12000
4. 20000

**Options**

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

Question Type : MCQ

Question ID : 6119872306

Option 1 ID : 6119878981

Option 2 ID : 6119878982

Option 3 ID : 6119878983

Option 4 ID : 6119878984

Status : Answered

Chosen Option : 2

