

Andhra Pradesh State Council of Higher Education

Question Paper Name: Computer Science and Engineering Information Technology
Subject Name: Computer Science and Engineering, Information Technology
Creation Date: 2019-11-10 19:04:12
Duration: 180
Total Marks: 180
Display Marks: Yes
Share Answer Key With Delivery Engine: Yes

Computer Science and Engineering

Group Number : 1
Group Id : 62321758
Group Maximum Duration : 0
Group Minimum Duration : 180
Revisit allowed for view? : No
Revisit allowed for edit? : No
Break time: 0
Group Marks: 180
Revisit allowed for group Instructions? : Yes
Maximum Instruction Time: 0
Minimum Instruction Time: 0

Teaching and Research Aptitude

Section Id : 623217115
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 82
Number of Questions to be attempted: 82
Section Marks: 90
Display Number Panel: Yes
Group All Questions: No

Sub-Section Number: 1
Sub-Section Id: 623217343
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 62321710318 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A teacher's major contribution towards the maximum self-realization of the student is affected through

Options :

1. Constant – fulfilment of the student's needs.
2. Strict reinforcement of academic standards.
3. Sensitivity to students need, goals and purposes.
4. Strict control of classroom activities.

Question Number : 2 Question Id : 62321710319 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

An Educated person is

Options :

1. a person who can apply his knowledge and skill to find solutions to various problems.
2. a person who is capable of attaining individual and social fulfilment.
3. a person who uses his knowledge to improve himself and the society.
4. All of the other options.

Question Number : 3 Question Id : 62321710320 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

John Locke' phrase of tabula rasa means

Options :

1. Tal & Ros
2. free education
3. mind itself is a result of the process of evolution

4. All of the other options.

Question Number : 4 Question Id : 62321710321 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The best educational programme is one which is according to the

Options :

1. need of the child

2. ability of the child

3. interest of child

4. All of the other options

Question Number : 5 Question Id : 62321710322 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Teachers must follow “Differentiated Instruction” as

Options :

1. To meet individual needs

2. Each child learns and processes information differently.

3. It is a successful approach to instruction

4. All of the other options.

Question Number : 6 Question Id : 62321710323 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

NMEICT stands for

Options :

1. National Mission on Education through ICT
2. National Mission on E-governance through ICT
3. National Mission on E-commerce through ICT
4. National Mission on E-learning through ICT

Question Number : 7 Question Id : 62321710324 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Using a previously learnt concept in new situation is called

Options :

1. Comprehension
2. Application
3. Analysis
4. Synthesis

Question Number : 8 Question Id : 62321710325 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The two statements assertion and reasoning are given. Based on that choose correct answer.

Assertion (A): All teaching should aim at ensuring learning

Reason (R): All learning results from teaching

Options :

1. Both (A) and (R) are true
2. Both (A) and (R) are false

3. A is true, but (R) is false.

4. A is false, but (R) is true.

Question Number : 9 Question Id : 62321710326 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following skills are needed for present day teacher to adjust effectively with the classroom.

- a. Knowledge of technology
- b. Use of technology in teaching learning.
- c. Knowledge of students needs
- d. Content mastery

Options :

1. (a) & (c)

2. (b) & (c)

3. (b), (c) and (d)

4. (b) & (d)

Question Number : 10 Question Id : 62321710327 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Research is

Options :

1. searching again and again

2. finding solution to any problem

3. working in a scientific way to searching for truth of any problem

None of the other options.

4.

Question Number : 11 Question Id : 62321710328 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The “error of the first kind” occurs if _____

Options :

the null hypothesis is rejected even though it is true.

1.

the null hypothesis is accepted even though it is false.

2.

both the null hypothesis as well as alternative hypothesis are rejected.

3.

None of the other options

4.

Question Number : 12 Question Id : 62321710329 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

One of the following is not a quality of researcher.

Options :

Keeness in enquiry

1.

He must be of alert mind

2.

His assertion to outstrip the evidence.

3.

Unison with that of which he is in search

4.

Question Number : 13 Question Id : 62321710330 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A statstical population is _____

Options :

1. a research total
2. A set of elements under study
3. a set of students in a study group
4. a human population

Question Number : 14 Question Id : 62321710331 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is not an advantage of descriptive research?

Options :

1. Less time consuming than quantitative experiments.
2. Cannot test or verify the research problem statistically.
3. Effective to analyse non-quantified topics and issues.
4. The qualitative and quantitative methods of data collection can be integrated.

Question Number : 15 Question Id : 62321710332 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following criteria is not considered while creating a paper outline?

Options :

1. Isolate a manageable size
2. Do not target the journal readership
3. Make the argument self-standing

None of the other options

4.

Question Number : 16 Question Id : 62321710333 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The principles of validity and reliability are fundamental cornerstones of _____.

Options :

Quantitative research

1.

Scientific research

2.

Qualitative research

3.

All of the other options

4.

Question Number : 17 Question Id : 62321710334 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of these is not a method of data collection?

Options :

Questionnaires

1.

Interviews

2.

Experiments

3.

Observations

4.

Question Number : 18 Question Id : 62321710335 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The external sources which are used only for help to prepare a document but are not actually present in the document is termed as _____.

Options :

1. Reference

2. Literature

3. Bibliography

4. Survey

Sub-Section Number: 2
Sub-Section Id: 623217344
Question Shuffling Allowed : Yes

Question Id : 62321710336 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (19 to 27)

Question Label : Comprehension

Read the following passage and answer the question :

Why do the vital organs of the body slow down on aging? Why do older people experience sleep disorders? A new study holds the molecular machinery of the “master clock: on the brain responsible for such malfunctions during old age. The study conducted by researchers at the University of Virginia and reported in the journal ‘Proceedings’ of the National Academy of Sciences, compares the working of the vital organs to a wall full of clocks with a large dominant clock controlling the synchronization of the peripheral clocks. The big clock continues to keep time, but as it ages, its connecting signal to the smaller clocks weakens. Some of the smaller clocks eventually becomes desynchronized and some stop running. This weakening of the signal, rather than a problem with the central timekeeper itself, apparently is the cause of alternations in the biological timing system in aging mammals – possibly including humans, according to the researchers. This may explain why older people experience sleep disorders – the signal from the master clock in the brain has weakened, even as it keeps on ticking. This weakened output causes some of the peripheral clocks in other organs to eventually stop oscillating or to fall out of proper sync, causing sleep disruption and malaise, the report says. Lack of sleep can affect more than a person’s level of alertness. In the long term, it can disrupt the body’s metabolism, affect eating cycles, lead to declining cognitive abilities and possibly, a shortened lifespan. Sleep disorders are also associated with Alzheimer’s disease. Gene D. Block, professor of biology and one of the study’s lead researchers, was quoted in the report as saying, “Our new finding demonstrates that the molecular machinery of the master clock continues to function normally. Taken together with our earlier studies, this suggests that there may be an age-related failure of the conversion of the clock’s molecular rhythm into the electrical or humeral signals that the brain uses for communication. These weakened central signals may fail to keep some peripheral clocks appropriately synchronized or, in some cases, even rhythmic. “The scientists studied tissues from the brain and other organs of older mice and measured the activity of a gene that is a part of the biological clock. They found that the central clock in the brain, suprachiasmatic nucleus, maintained proper periodicity and synchronization. Clocks in some peripheral organs, such as the liver and kidney of older animals, were either improperly synchronized or had lost rhythm entirely. “This new knowledge could eventually lead to new therapies for age-related desynchronization.” Block said, “Arrhythmic or improperly synchronized tissues of old animals could possibly be stimulated by a treatment to oscillate normally”.

Which of these factors is held responsible for the slowing down of the vital organs in old age, as laid down in the passage?

Sub questions

Question Number : 19 Question Id : 62321710337 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of these factors is held responsible for the slowing down of the vital organs in old age, as laid down in the passage?

Options :

1. Molecular machinery of the master clock and the peripheral clocks in the brain
2. Master clock in the brain
3. Weakening of the signals from the master clock in the brain
4. Arrhythmic oscillations of tissues of old animals

Question Number : 20 Question Id : 62321710338 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following sentences is incorrect according to the passage?

Options :

1. The connecting signals of the big clock fail, as it ages
2. Alterations in the biological timing system are restricted to lower mammals only
3. The brain uses humeral signals, which are converted from the clock's molecular rhythm
4. None of the other options

Question Number : 21 Question Id : 62321710339 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What was the breakthrough achieved, as a result of the scientist's effort?

Options :

1. The discovery of the fact that the clock in some peripheral organs were either improperly synchronized or had lost their rhythm completely
2. The knowledge that the oscillation is necessary to maintain a person's level of alertness
3. The observation that the brain uses humeral signals for communication
4. None of the other options

Question Number : 22 Question Id : 62321710340 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Which of the following sentences is true, in the context of the passage?

Options :

1. The brain of a guinea pig was used for the tissue experimentation
2. Declining cognitive abilities may be traced to sleeplessness
3. The big clock is directly synchronized to smaller clocks through tissues
4. Both Declining cognitive abilities may be traced to sleeplessness and the big clock is directly synchronized to smaller clocks through tissues

Question Number : 23 Question Id : 62321710341 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Which of the following sentences is incorrect, according to the passage?

Options :

1. There is a similarity in the functioning of the brain and the vital organs of the human body with that of a wall full of clocks and the big clock synchronizing them

2. The molecular machinery of the brain is responsible for the entire malfunctioning occurring at older ages

3. The study of tissues from the brain and other organs of mice helped scientists discover that even though the suprachiasmatic nucleus maintained time properly, the clock in the peripheral organs were either out of sync or had lost rhythm entirely

4. None of the other options

Question Number : 24 Question Id : 62321710342 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

What appears to be true, in the context of a new findings?

Options :

1. Sufficient information about the bipolar disease is necessary to ward off desynchronization

2. Age related failure hampers the synchronization of the peripheral clocks in the respect of organs

3. Alzheimer's disease and sleeping disorder have a similar impact upon the human mind

4. Age related failure hampers the synchronization of the peripheral clocks in the respect of organs and Alzheimer's disease and sleeping disorder have a similar impact upon the human mind

Question Number : 25 Question Id : 62321710343 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Alterations in the biological clock of ageing mammals are due to _____.

Options :

1. desynchronization of smaller clocks

2. destabilization of molecular machinery

3. arrhythmic functioning of the old tissues

4. None of the other options

Question Number : 26 Question Id : 62321710344 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which is associated with Alzheimer's disease?

Options :

1. Sleep disorders

2. Eating cycles

3. Body clock

4. Laziness

Question Number : 27 Question Id : 62321710345 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Clock in some _____ organs were either improperly synchronized or had lost rhythm entirely.

Options :

1. animals

2. peripheral

3. outer

4. internal

Question Number : 28 Question Id : 62321710346 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

The remark like “I have never seen you so smartly dressed” is an example of _____

Options :

1. Formal communication
2. Informal communication
3. Meta communication
4. Downward communication

Question Number : 29 Question Id : 62321710347 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

In a classroom, a communicator’s trust level is determined by _____

Options :

1. the change of voice level
2. the use of abstract concepts.
3. gifts & rewards
4. eye contact

Question Number : 30 Question Id : 62321710348 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Digitization is _____

Options :

1. Thin, Flexible Fibers of glass capable of transmitting light signals.

2. The process in which media is made into computer readable form.
3. Media's focus on narrower audience segments.
4. All of the other options.

Question Number : 31 Question Id : 62321710349 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What is encoding?

Options :

1. It is the vehicle through which a message is carried from the communicator to the receiver.
2. It is the formulation of message in the communicators mind
3. It is one who initiate communication process
4. Other end of communication

Question Number : 32 Question Id : 62321710350 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Match the following:

- | | | |
|-------------|---|--------------------|
| a. Twitter | - | 1. Mark Zucherberg |
| b. Facebook | - | 2. Dick Costolo |
| c. LinkedIn | - | 3. Jeff Weiner |
| d. Google | - | 4. Larry page |

Options :

1. a-1 b-4 c-2 d-3
2. a-4 b-2 c-3 d-1

3. a-2 b-1 c-3 d-4

3.

4. a-4 b-1 c-3 d-2

4.

Question Number : 33 Question Id : 62321710351 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The term DAVP stands for

Options :

1. Directorate of Advertising and visual publicity

1.

2. Department of Audio-Visual Publicity

2.

3. Division of Audio-Visual Publicity

3.

4. Directorate of advertising and vocal publicity

4.

Question Number : 34 Question Id : 62321710352 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of these must be avoided for effective communication?

Options :

1. Sharing of activity

1.

2. Listening

2.

3. Ambiguity

3.

4. Politeness

4.

Question Number : 35 Question Id : 62321710353 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Verbal mode of communication may have barrier in delivering the proper message such as _____

Options :

1. thoughts
2. perceptions
3. emotions
4. All of the other options

Question Number : 36 Question Id : 62321710354 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Match the following:

- | | | |
|---------------------|---|--|
| a. Teleconferencing | - | 1. First Para of news |
| b. Angle | - | 2. A website where you can add, remove or edit the content |
| c. head | - | 3. Group of persons |
| d. Wikipedia | - | 4. Focus of the story |

Options :

1. a-4 b-2 c-1 d-3
2. a-2 b-1 c-3 d-4
3. a-3 b-4 c-1 d-2
4. a-3 b-2 c-1 d-4

Question Number : 37 Question Id : 62321710355 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Five persons A, B, C, D, E are standing in a line. B is between D and C and D is between A and B. If E is not adjacent to A, then the two persons at the ends are

Options :

1. C, E

2. A, C

3. A, E

4. B, C

Question Number : 38 Question Id : 62321710356 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Mr. A's mother is twice as old as his sister B. A is 3 years younger to his sister 'B' and 4 years older than his brother 'C' whose age is 16 years. Then the age of A's mother, in years is

Options :

1. 44

2. 46

3. 34

4. 30

Question Number : 39 Question Id : 62321710357 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The number that comes next to the sequence is

3, 11, 35, 107, 323, _____

Options :

1. 960

2. 966

3. 970

4. 971

Question Number : 40 Question Id : 62321710358 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

The pair of letters that are come next in the following letter series is

AC, DG, HL, MR, _____

Options :

1. SW

2. SX

3. SY

4. SZ

Question Number : 41 Question Id : 62321710359 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

If B is son of X and A is the son of the only daughter of mother of B, then A is related to

X as _____.

Options :

1. Cousin Brother

2. Grand Son

3. Grand Father

4. Brother-in-law

Question Number : 42 Question Id : 62321710360 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If $0.925 = \frac{m}{n}$ and if greatest common divisor (g.c.d.) of m, n is 1, then $m + n =$

Options :

1. 953

2. 1906

3. 916

4. 1816

Question Number : 43 Question Id : 62321710361 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A train of length 180 m travelling at a speed of 58 kmph crosses a man walking in the same direction with a speed of 4 kmph in 'x' seconds, then x equals to _____

Options :

1. 10

2. 12

3. 14

4. 16

Question Number : 44 Question Id : 62321710362 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If a radius of a circle increases 50 percent. Then the percentage increase in the area of the circle is

Options :

1. 25

2. 50

3. 100

4. 125

Question Number : 45 Question Id : 62321710363 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A person sells two articles for ₹1,800 each and he gains 20% on the first and loses 20% on the second. Then the gain or loss in the total transaction to him is

Options :

1. ₹200 gain

2. ₹200 loss

3. ₹150 gain

4. ₹150 loss

Sub-Section Number: 4
Sub-Section Id: 623217346
Question Shuffling Allowed : No

Question Number : 46 Question Id : 62321710364 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The text Nyaya sutras is composed by

Options :

1. Goutama

2. Charka

Jaimini

3.

Manu

4.

Question Number : 47 Question Id : 62321710365 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which school does not recognise upamana as a pramana?

Options :

Nyaya

1.

Sankya

2.

Chakra

3.

Jaimini

4.

Question Number : 48 Question Id : 62321710366 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following pramana is considered for understanding the knowledge which we get through the relation and its implication.

Options :

Arthapathi pramana

1.

Upamana pramana

2.

Anumana pramana

3.

Pratyaksha pramana

4.

Question Number : 49 Question Id : 62321710367 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Find the word which cannot be made using the letters of the given word.

“PARTICIPATION”

Options :

1. PARTICIPANT
2. NOTICE
3. PART
4. PARTITION

Question Number : 50 Question Id : 62321710368 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In some code “DEAN” is related to “NDAE” and “ROAD” is related to “DRDO” in the same way as “SOME” is related to _____

Options :

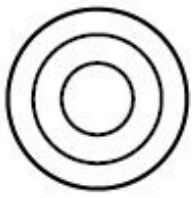
1. ESMO
2. EOMS
3. EMOS
4. MSEO

Question Number : 51 Question Id : 62321710369 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

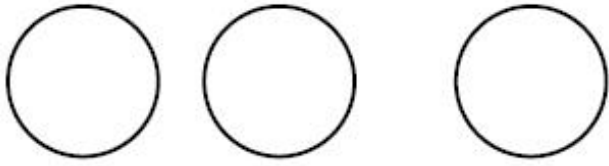
Wrong Marks : 0

Identify the diagram which represents the relationship among Judges, Thief and Criminals.

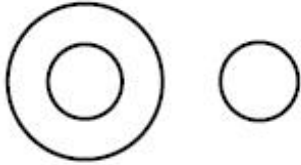
Options :



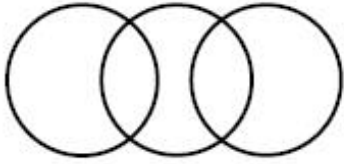
1.



2.



3.



4.

Question Number : 52 Question Id : 62321710370 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Melt is related to liquid in the same way as Freeze is related to

Options :

1. Crystal

2. Ice

3. Water

4. Cubes

Question Number : 53 Question Id : 62321710371 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

P is brother of Q. R is sister of S. How is P related to R?

Options :

1. Brother

2. Father

3. Uncle

4. Sister

Question Number : 54 Question Id : 62321710372 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A person 'A' walks from a point 'X' in the North-East direction. He then turns left by 90 degrees in which direction is he from the starting point?

Options :

1. East

2. North-East

3. West

4. South-West

Question Number : 55 Question Id : 62321710373 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Discrete variables and continuous variables are two types of

Options :

1. open end classification

2. time sense classification

3. qualitative classification

quantitative classification

4.

Question Number : 56 Question Id : 62321710374 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following table shows the sales (in thousands) of different models (A, B, C, D, E) of cars manufactured by accompany from 2014 to 2018. Based on the information given, answer the question given below.

Year \ Model	A	B	C	D	E
2014	42	48	51	32	48
2015	51	53	49	37	44
2016	50	60	71	39	47
2017	52	67	68	41	49
2018	64	72	70	52	53

The year that registered highest growth percentage of sales of 'B' model cars over the previous year is

Options :

1. 2015
2. 2016
3. 2017
4. 2018

Question Number : 57 Question Id : 62321710375 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following table shows the sales (in thousands) of different models (A, B, C, D, E) of cars manufactured by accompany from 2014 to 2018. Based on the information given, answer the question given below.

Model Year	A	B	C	D	E
2014	42	48	51	32	48
2015	51	53	49	37	44
2016	50	60	71	39	47
2017	52	67	68	41	49
2018	64	72	70	52	53

The model that has registered lowest growth percent in 2017 over the previous year is

Options :

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

Question Number : 58 Question Id : 62321710376 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following table shows the sales (in thousands) of different models (A, B, C, D, E) of cars manufactured by accompany from 2014 to 2018. Based on the information given, answer the question given below.

Model Year	A	B	C	D	E
2014	42	48	51	32	48
2015	51	53	49	37	44
2016	50	60	71	39	47
2017	52	67	68	41	49
2018	64	72	70	52	53

The percentage increase in the sales of cars of models A and C put together in the year 2018 over the year 2015, adjusted to nearest integer, is

Options :

1. 34
2. 15
3. 21
4. 28

Question Number : 59 Question Id : 62321710377 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following table shows the sales (in thousands) of different models (A, B, C, D, E) of cars manufactured by accompany from 2014 to 2018. Based on the information given, answer the question given below.

Model \ Year	A	B	C	D	E
2014	42	48	51	32	48
2015	51	53	49	37	44
2016	50	60	71	39	47
2017	52	67	68	41	49
2018	64	72	70	52	53

In the given period the model that have registered highest growth percent is

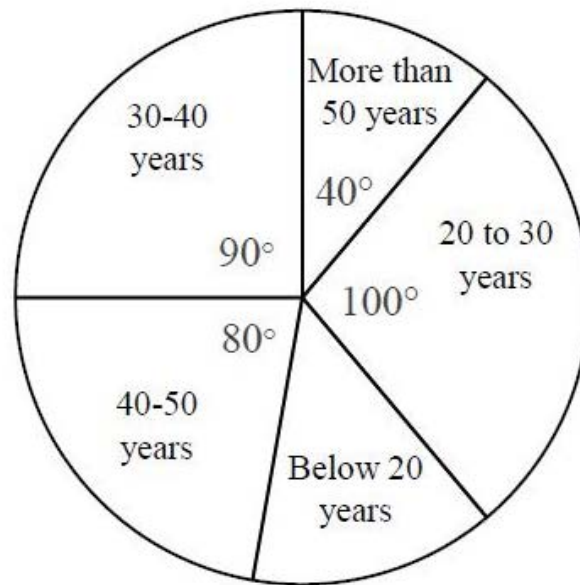
Options :

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

Question Number : 60 Question Id : 62321710378 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following pie-chart shows the people of different age groups in a town of total population 9,000. Based on the information given in the chart answer the question given below.



The number of people in the age group below 20 years is

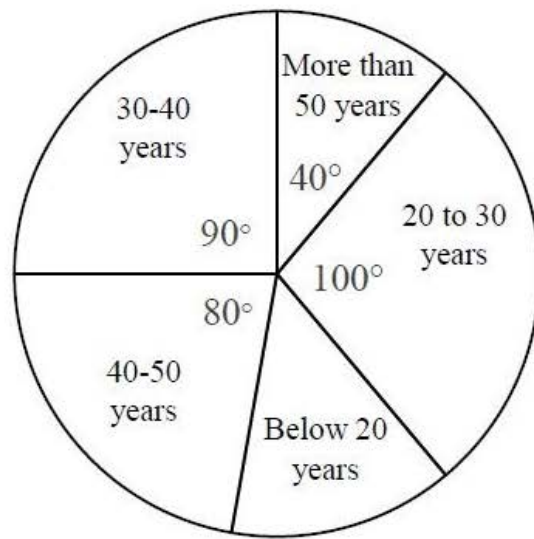
Options :

1. 750
2. 1000
3. 1250
4. 1500

Question Number : 61 Question Id : 62321710379 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following pie-chart shows the people of different age groups in a town with a total population of 9,000. Based on the information given in the chart answer the question given below.



The number of people in the age group 30-40 and 40-50 put together exceed those in the age group 20-30 by

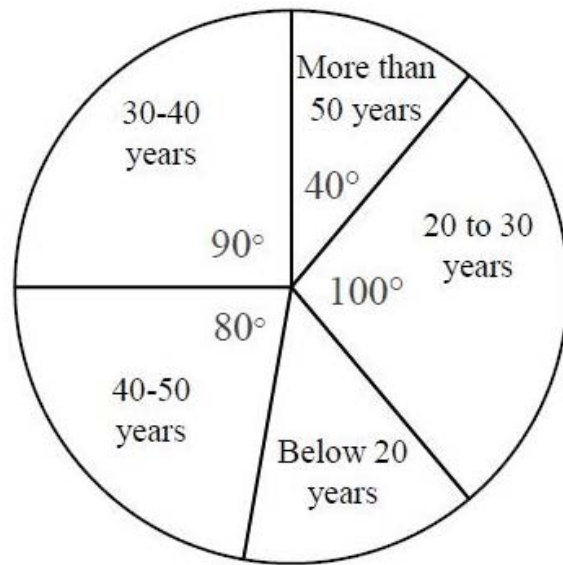
Options :

1. 750
2. 1250
3. 1500
4. 1750

Question Number : 62 Question Id : 62321710380 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following pie-chart shows the people of different age groups in a town with a total population of 9,000. Based on the information given in the chart answer the question given below.

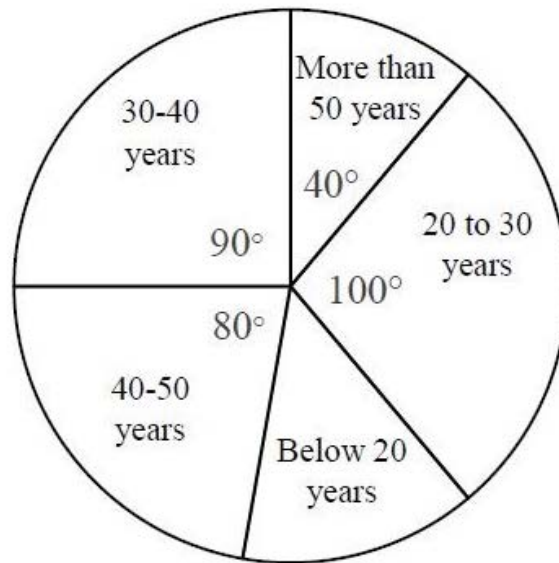


The percentage of people in the age group “above 50 years” in the total population is

Options :

1. $11\frac{1}{9}$
2. $10\frac{8}{9}$
3. $9\frac{7}{9}$
4. $12\frac{2}{9}$

The following pie-chart shows the people of different age groups in a town with a total population of 9,000. Based on the information given in the chart answer the question given below.



The difference between the number of people in the age groups 30-40 and 20-30 years is

Options :

1. 1000
2. 750
3. 500
4. 250

Sub-Section Number: 5
Sub-Section Id: 623217347
Question Shuffling Allowed : Yes

Question Number : 64 Question Id : 62321710382 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The full form of SLIP is

Options :

1. Serial Line Internet Protocol

2. Serial Line Instant Protocol

3. Service Lost Important Principle

4. Service Line Interpol Protocol

Question Number : 65 Question Id : 62321710383 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following circuit is used as a 'memory device' in computers?

Options :

1. Rectifier

2. Flip-flop

3. Comparator

4. Attenuator

Question Number : 66 Question Id : 62321710384 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Charles Babbage invented

Options :

1. ENIAC

2. Difference engine

3. Electronic computer

4. Punch card

Question Number : 67 Question Id : 62321710385 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Term associated with the comparison of processing speed is

Options :

1. FFTS
2. MPG
3. MIPS
4. CPS

Question Number : 68 Question Id : 62321710386 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following software package is used for composing in printing press?

Options :

1. Lotus
2. dBase
3. Page Maker
4. Word Perfect

Question Number : 69 Question Id : 62321710387 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which tags, when placed on an animal ear be used to record and track in a database of all animal's movement?

Options :

1. POS

2. RFID

3. PPS

4. GPS

Question Number : 70 Question Id : 62321710388 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A byte can hold one _____ of data.

Options :

1. character

2. binary digit

3. bit

4. kilobyte

Question Number : 71 Question Id : 62321710389 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is not a search engine?

Options :

1. Google

2. Chrome

3. Yahoo

4. Bing

Question Number : 72 Question Id : 62321710390 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

HTML is used to create

Options :

1. Machine language program
2. High level programme
3. Web page
4. Web server

Question Number : 73 Question Id : 62321710391 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many sustainable development goals are set by the UN General Assembly in 2015 for the year 2030?

Options :

1. 17
2. 18
3. 15
4. 20

Question Number : 74 Question Id : 62321710392 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Social sustainability refers to _____

Options :

1. Stewardship of resources, managing and conserving the environment.

2. sharing benefits fairly and equitably and respecting the quality of life of communities and of human rights.

3. the concept of the enterprise supporting jobs and delivering income to communities in the long term.

4. the concept of the enterprise supporting jobs and delivering income to communities in the short term.

Question Number : 75 Question Id : 62321710393 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is / are the main factor (s) responsible for the rapid rate of deforestation?

Options :

1. Rapid growth of population in the developing countries.

2. Extension of agriculture and grazing lands.

3. Rising demand for lumber, timber, paper, fuel – wood and charcoal and other forest products.

4. All of the other options

Question Number : 76 Question Id : 62321710394 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

As a result of primarily commercial fishing activity, what has happened to fish population

Options :

1. There has been a decrease in the levels of toxins found in the flesh of fish population that we eat.

2. There has been a directional selection, favouring larger fish population

3. There has been a decline in population sizes of commercial fish stocks

4. Some commercial fish species are exhibiting faster growth rates.

Question Number : 77 Question Id : 62321710395 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Harmful radiations like alpha or beta particles or gamma rays in the environment causes

Options :

1. Air pollution
2. Soil pollution
3. Noise pollution
4. None of the other options.

Question Number : 78 Question Id : 62321710396 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In the production of wave energy, which form of energy is used?

Options :

1. Potential energy
2. Kinetic energy
3. Solar energy
4. Wind energy

Question Number : 79 Question Id : 62321710397 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A disease that becomes unusually widespread and even global in its reach is referred to as

Options :

1. Epidemic
2. Pandemic

3. Spanish Flu

4. Hyperendemic

Question Number : 80 Question Id : 62321710398 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In India, Cyclone is tracked through which satellite?

Options :

1. GPS

2. Ocean SAT

3. I R S

4. INSAT

Question Number : 81 Question Id : 62321710399 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

For what production and consumption phase out schedules, the Montreal Protocol has been established?

Options :

1. Greenhouse emitting gases

2. Global warming emitting gases

3. Ozone layer depleting substances

4. Water level increasing substances

Question Number : 82 Question Id : 62321710400 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The women who pursue studies till their marriage are called

Options :

1. Sadyodwahay
2. Bramhavadinis
3. Kshatriyavadinis
4. All of the other options.

Question Number : 83 Question Id : 62321710401 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The main challenges addressed by the National Education Policy 2019 are

- a) access
- b) equity
- c) quality
- d) affordability
- e) accountability

Options :

1. (a), (c) and (d)
2. (b), (c) and (d)
3. (b), (c) (d) and (e)
4. (a),(b),(c), (d) and (e)

Question Number : 84 Question Id : 62321710402 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The Gross Enrolment Ratio (GER) in higher education in the year 2016-17 according to All India Higher Education Survey released by HRD Ministry was _____.

Options :

1. 24.5%
2. 25.2%
3. 16.5%
4. 20.00%

Question Number : 85 Question Id : 62321710403 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following organizations looks after the quality of technical and management education in India?

Options :

1. NCTE
2. MCI
3. AICTE
4. TMEI

Question Number : 86 Question Id : 62321710404 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Driving force in an ecosystem is _____

Options :

1. Plants
2. Producers

3. Solar energy

4. Biomass energy

Question Number : 87 Question Id : 62321710405 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following Commission is termed as “Bible for teachers”?

Options :

1. Kothari Commission

2. Mudaliar Commission

3. Radhakrishnan Commission

4. Rammurthy review commission

Question Number : 88 Question Id : 62321710406 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Ministry of Human Resource Development (MHRD) includes

Options :

1. Department of Elementary Education and Literacy

2. Department of secondary Education and Higher Education.

3. Department of Women & Child development

4. All of the other options.

Question Number : 89 Question Id : 62321710407 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In which of the following states of India is the “Indian Institute of Sindhology” located?

Options :

1. Gujarat
2. Punjab
3. Rajasthan
4. Haryana

Question Number : 90 Question Id : 62321710408 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What is the most important element of non-formal education in the present era?

Options :

1. Teacher
2. Student
3. Media
4. School

Computer Science and Engineering

Section Id :	623217116
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	90
Number of Questions to be attempted:	90
Section Marks:	90
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	623217348
Question Shuffling Allowed :	Yes

Question Number : 91 Question Id : 62321710409 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Insert the following nodes in an empty Binary max heap in the order 3,2,1,4,5,8,7. The level order traversal of the binary max heap obtained is

Options :

1. 8,4,7,2,3,1,5

2. 8,7,5,4,3,2,1

3. 8,5,7,4,2,1,3

4. 8,5,7,4,2,3,1

Question Number : 92 Question Id : 62321710410 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Number of rooted binary trees of height 'n' with exactly one leaf is

Options :

1. n

2. n + 1

3. 2^n

4. $\frac{2^n C_n}{n+1}$

Question Number : 93 Question Id : 62321710411 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider the following recurrence relation:

$$T(n) = 2T(\sqrt{n}) + 1$$

$$T(1) = 1$$

Which of the following is true?

Options :

1. $T(n) = O(\log \log n)$

2. $T(n) = O(\log n)$

3. $T(n) = O(\sqrt{n})$

4. $T(n) = O(n)$

Question Number : 94 Question Id : 62321710412 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The order of precedence of the set of operators $\{+, -, *, /, \$\}$ from highest to lowest is $\$, *$ or $/, +$ or $-$. If infix expression is $A\$B*C-D+E/F/(G+H)$, then find its equivalent post fix expression. (All the operators are left associative except $\$$.)

Options :

1. $AB\$C*D-EF/GF+//+$

2. $AB\$C*D+EF/GF+/-$

3. $AB\$C*EF/GF+//+D-$

ABC*\$D-EF/GH+//+

4.

Question Number : 95 Question Id : 62321710413 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many squares are adjacent to a given square in a Karnaugh Map in five variables?

Options :

1. 32

2. 05

3. 04

4. 31

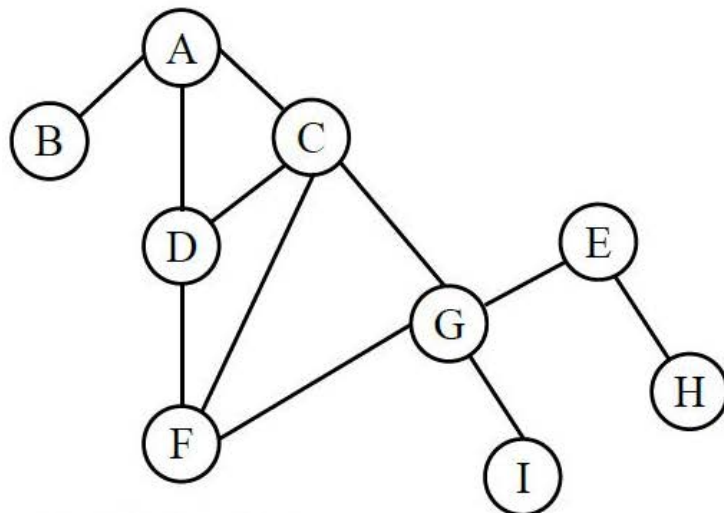
Question Number : 96 Question Id : 62321710414 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider the following graph having traversing sequence on graph given below:

i) A,B,D,C,F,G,I,E,H

ii) A,B,C,D,G,F,I,E,G



Which of the following is TRUE?

Options :

(i) Represents the BFS sequence and (ii) Represents DFS sequence

1.

(i) Represents the DFS sequence and (ii) Represents BFS sequence

2.

(i) and (ii) represents BFS sequence

3.

(i) and (ii) represents DFS sequence

4.

Question Number : 97 Question Id : 62321710415 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider the Huffman codes that are used to compress the data. Four messages with their respective frequencies are given in the table.

Message	M1	M2	M3	M4
Frequency	0.51	0.25	0.13	0.11

The average length of the code word is

Options :

1.73

1.

2.21

2.

2.25

3.

3

4.

Question Number : 98 Question Id : 62321710416 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The chromatic number of a tree with n vertices is

Options :

2

1.

2. 4

3. n

4. $n/2$

Question Number : 99 Question Id : 62321710417 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The knapsack problem where the objective function is to minimize the profit is an example of

Options :

1. Greedy technique

2. Dynamic programming technique

3. Branch and bound technique

4. Backtracking technique

Question Number : 100 Question Id : 62321710418 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The problem 3-SAT and 2-SAT are

Options :

1. Both in P

2. Both NP complete

3. NP-complete and in P respectively

4. Undecidable and NP-complete respectively

Question Number : 101 Question Id : 62321710419 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many relations are there on a set with n elements that are reflexive and symmetric?

Options :

1. $2^{n(n-1)/2}$

2. $2^{n(n+1)/2}$

3. 2^n

4. n^2

Question Number : 102 Question Id : 62321710420 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is true?

Options :

1. Every function can be represented graphically

2. The functions $f(x) = x$ and $g(x) = \sqrt{x^2}$ are identical

3. The functions $f(x) = \log x^2$ and $g(x) = 2 \log x$ are identical

4. The domain of $f(x) = 1/\left(\sqrt{|x| - x}\right)$ is $(-\infty, 0)$

Question Number : 103 Question Id : 62321710421 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The order of a leaf node in a B+ tree is the maximum number of (value, data record pointer) pairs it can hold. Given that the block size is 1 K bytes, data record pointer is 7 bytes long, the value field is 9 bytes long and a block pointer is 6 bytes long, what is the order of the leaf node?

Options :

1. 63

2. 64

3. 67

4. 68

Question Number : 104 Question Id : 62321710422 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A set of FD's F is in minimal form if

- (i) The RHS of any FD of F is a single attribute
- (ii) There are no redundant FDs in F
- (iii) There are no redundant attributes on the LHS of any FD in F

Options :

1. Only (i) and (ii)

2. Only (ii) and (iii)

3. Only (i) and (iii)

4. (i), (ii) and (iii)

Question Number : 105 Question Id : 62321710423 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider two sets of functional dependencies F and G as

$$F = \{A \rightarrow B, B \rightarrow C, C \rightarrow A\}, G = \{A \rightarrow BC, B \rightarrow A, C \rightarrow A\}$$

Then which of the following is true?

Options :

1. F covers G

2. G covers F

3. F covers G and G covers F

4. Neither F covers G nor G covers F

Question Number : 106 Question Id : 62321710424 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider a relation schema R(A,B,C) with functional dependency

$$F = \{A \rightarrow B, B \rightarrow C, C \rightarrow A\}$$

The relation schema is decomposed into two schemas $R_1 = \{A,B\}$ and $R_2 = \{B,C\}$.

Which one of the following is true?

Options :

1. The decomposition is lossless and dependency preserving

2. The decomposition is lossy and dependency preserving

3. The decomposition is lossless and not dependency preserving

4. The decomposition is lossy and not dependency preserving

Question Number : 107 Question Id : 62321710425 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is true?

S1 : If any given schedule is conflict serializable then it is view serializable

S2 : Primary indices are dense indices

Options :

1. S1

2. S2

3. S1 and S2

4. Neither S1 nor S2

Question Number : 108 Question Id : 62321710426 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What is minimum utilization space for a B⁺ tree index?

Options :

1. 60%

2. 50%

3. 66%

4. 75%

Question Number : 109 Question Id : 62321710427 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is true regarding the 'Scheduler'?

- (i) The scheduler is the DBMS component that establishes the order in which concurrent database operations are executed
- (ii) The scheduler interleaves the execution of the database operations (belonging to several concurrent transactions) not to ensure the serializability of transactions

Options :

- 1. (i) Only correct
- 2. (ii) Only correct
- 3. Both (i) and (ii) are correct
- 4. Neither (i) nor (ii) is correct

Question Number : 110 Question Id : 62321710428 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

A connection from one computer to another through a connection-oriented network with frame relay is termed as

Options :

- 1. PVC
- 2. TCP/IP
- 3. RARP
- 4. Netware

Question Number : 111 Question Id : 62321710429 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

DMA module takes control of bus in order to transfer data when

Options :

1. the data is ready for transfer
2. only when the CPU does not need the bus
3. Interrupt is being serviced by CPU
4. None of the other options

Question Number : 112 Question Id : 62321710430 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The number of flip-flops required to construct a binary modulo N counter is

Options :

1. 2
2. 1
3. N
4. $N - 1$

Question Number : 113 Question Id : 62321710431 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which layer functions as liaison between user support layers and network support layers?

Options :

1. Network layer

Physical layer

2.

Transport layer

3.

Session layer

4.

Question Number : 114 Question Id : 62321710432 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

IPV6 has _____ bit address

Options :

16

1.

32

2.

128

3.

Variable

4.

Question Number : 115 Question Id : 62321710433 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In a noisy environment, the best transmission medium is

Options :

Twisted pair

1.

Coaxial cable

2.

Optical fibre

3.

The atmosphere

4.

Question Number : 116 Question Id : 62321710434 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Traditional LAN uses

Options :

1. circuit switching

1.

2. packet switching

2.

3. Radio Frequency (RF) wireless

3.

4. packet broadcasting

4.

Question Number : 117 Question Id : 62321710435 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following statements is false?

Options :

1. HTTP runs over TCP

1.

2. HTTP describes the structure of web pages

2.

3. HTTP allows information to be stored in URL

3.

4. HTTP can be used to test the validity of a hypertext link

4.

Question Number : 118 Question Id : 62321710436 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Suppose that a disk drive has 5000 cylinders, numbered 0 to 4999. The drive is currently serving a request at cylinder 143 and the previous request was at cylinder 125. The queue of pending requests, in FIFO order is 86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130 starting from the current head position, what is the total distance (in cylinders) that the disk arm moves to satisfy all the pending requests, for SSTF disk-scheduling algorithms?

Options :

1. 7081
2. 1745
3. 3319
4. 3363

Question Number : 119 Question Id : 62321710437 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Responsibilities of data link layer is

Options :

1. Framing
2. Deframing
3. Acknowledgement management
4. All of the other options

Question Number : 120 Question Id : 62321710438 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Thrashing

Options :

1. reduces page I/O
2. decreases the degree of multi programming
3. implies excessive page I/O
4. improves the system performance

Question Number : 121 Question Id : 62321710439 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Which of the following is true?

Options :

1. Overlays are used to increase the size of physical memory
2. Overlays are used to increase the logical address space
3. When overlays are used, the size of a process is not limited to the size of physical memory
4. Overlays are used whenever the physical address space is smaller than the logical address space

Question Number : 122 Question Id : 62321710440 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

A state is safe if the system can allocate resources to each process (up to its maximum) in some order and still avoid deadlock. Which of the following are false?

Options :

1. Deadlocked state is unsafe

Safe state must lead to a deadlock situation

2.

Unsafe state must lead to a deadlock situation

3.

Deadlocked state is a subset of unsafe state

4.

Question Number : 123 Question Id : 62321710441 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

At a particular time of computation, the value of a counting semaphore is 7. Then 20 P operations and 'x' V operations were completed on this semaphore. If the final value of the semaphore is 5, x will be

Options :

22

1.

18

2.

15

3.

13

4.

Question Number : 124 Question Id : 62321710442 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A B-tree of order 4 is built from scratch by 10 successive insertions. What is the maximum number of splitting operations that may take place?

Options :

3

1.

4

2.

3. 5

4. 6

Question Number : 125 Question Id : 62321710443 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Bit stuffing refers to

Options :

1. inserting a '0' in user stream to differentiate it with a lag

2. inserting a '0' in lag stream to avoid ambiguity

3. appending a nibble to the lag sequence

4. appending a nibble to the use data stream

Question Number : 126 Question Id : 62321710444 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If a network designer wants to connect 5 routers as point-to-point simplex line, then total number of lines required would be

Options :

1. 5

2. 10

3. 20

4. 32

Wrong Marks : 0

Agile software development is based on

Options :

1. incremental development
2. iterative development
3. linear development
4. iterative development and incremental development

Wrong Marks : 0

The number of leaves in a 3-ary tree with n internal nodes is

Options :

1. $2(n - 1)$
2. $2n$
3. $2(n - 1) + 3$
4. $2(n - 1) + 2$

Wrong Marks : 0

Which of the following algorithm design techniques is used in quick sort algorithm?

Options :

1. Dynamic programming

2. Backtracking

3. Divide and conquer

4. Greedy method

Question Number : 130 Question Id : 62321710448 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The proposition $(p \text{ and } (\sim p \text{ or } q))$ is

Options :

1. tautology

2. logically equivalent to p and q

3. logically equivalent to p or q

4. a contradiction

Question Number : 131 Question Id : 62321710449 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What is the maximum height of any AVL tree with 7 nodes? Assume that height of a tree with single node is 0.

Options :

1. 2

2. 3

4

3.

7

4.

Question Number : 132 Question Id : 62321710450 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

RAID configuration of disks are used to provide

Options :

1. fault-tolerance
2. high data density
3. high speed
4. low data density

Question Number : 133 Question Id : 62321710451 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider the following statements:

- I. Threads can block any signal that they do not wish to receive
- II. In asynchronous communication, signal is received by all threads who have not blocked it

Identify the correct one.

Options :

1. Both are true
2. Only I is true
3. Only II is true

4. Both are false

Question Number : 134 Question Id : 62321710452 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Context free languages are not closed under

Options :

1. Union

2. Concatenation

3. Complementation

4. Kleene closure

Question Number : 135 Question Id : 62321710453 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following grammar is in Grebach Normal form?

Options :

1. $S \rightarrow aBSB \mid aA, A \rightarrow a, B \rightarrow b$

2. $S \rightarrow aSb \mid ab$

3. $S \rightarrow abSb \mid bb$

4. None of the other options

Question Number : 136 Question Id : 62321710454 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

YACC is used to build

Options :

1. SLR parsing table
2. LALR parsing table
3. Canonical SLR parsing table
4. RALR parsing table

Question Number : 137 Question Id : 62321710455 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What is the output of semantic analyser?

Options :

1. A stream of tokens
2. An annotated syntax tree
3. A syntax tree
4. An intermediate code

Question Number : 138 Question Id : 62321710456 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following forms of code allow subprograms be compiled separately?

Options :

1. Re-locatable machine code

2. High level language program

3. Absolute machine code

4. Assembly machine code

Question Number : 139 Question Id : 62321710457 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Match the following:

A) Requirements capture

B) Design

C) Implementation

D) The maintenance

X) Module development and integration

Y) Domain analysis

Z) Structural and behavioural modelling

P) Performance tuning

Options :

1. A-Z, B-Y, C-P, D-X

2. A-Y, B-Z, C-X, D-P

3. A-Z, B-Y, C-X, D-P

4. A-Y, B-Z, C-P, D-X

Question Number : 140 Question Id : 62321710458 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

For a function of three variables, how many boundary value test cases are to be generated?

Options :

1. 8

2. 13

3. 12

4. 19

Question Number : 141 Question Id : 62321710459 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is not a size measure for software?

Options :

1. Lines of code

2. Function point count

3. Cyclomatic complexity

4. Halstead's program length

Question Number : 142 Question Id : 62321710460 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Enumeration of different levels of cohesion in increasing order is

Options :

1. coincidental, temporal, procedural, functional

2. coincidental, procedural, temporal, functional

3. coincidental, procedural, functional, temporal

4. temporal, procedural, functional, coincidental

Question Number : 143 Question Id : 62321710461 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In software project, COCOMO (Construction Cost Model) is used to estimate

Options :

1. effort and duration based on the size of project
2. size and duration based on effort of project
3. effort and cost based on duration of project
4. size, effort and duration based on cost of project

Question Number : 144 Question Id : 62321710462 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many symmetric relations are possible on the set $S = \{a, b, c, d\}$?

Options :

1. 1024
2. 4096
3. 11664
4. 256

Question Number : 145 Question Id : 62321710463 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Minimum number of clock pulses needed to modify the contents of 6 bit down counter from 110011 to 111100.

Options :

1. 10

2. 9

3. 55

4. 118

Question Number : 146 Question Id : 62321710464 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The number of Hamiltonian cycles in a complete bipartite graph $K_{4,4}$ is

Options :

1. 6

2. 12

3. 72

4. 288

Question Number : 147 Question Id : 62321710465 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The number of DFSs of two states with designated starting state over $\Sigma = \{a, b, c\}$ is

Options :

1. 32

2. 16

3. 256

4. 128

Question Number : 148 Question Id : 62321710466 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many minimum spanning trees are possible on cycle with 5 vertices?

Options :

1. 3

2. 4

3. 5

4. 6

Question Number : 149 Question Id : 62321710467 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The main disadvantage of direct mapping of cache organization is that:

Options :

1. It doesn't allow simultaneous access to the intended data and its tag

2. It is more expensive than other type of organizations

3. The cache hit ratio is degraded if two or more blocks used alternatively map onto the same block frame in the cache.

4. The number of blocks requires for the cache increases linearly with the size of the main memory

Question Number : 150 Question Id : 62321710468 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Checking the quality of software in both simulated and line environments, is called

Options :

1. checking

2. usability

3. validity

4. validation

Question Number : 151 Question Id : 62321710469 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

The necessary conditions needed before deadlock can occur

Options :

1. no mutual exclusion, hold and wait, pre-emption, circular wait

2. mutual exclusion, no hold and wait, pre-emption, circular wait

3. mutual exclusion, hold and wait, no pre-emption, circular wait

4. mutual exclusion, hold and wait, pre-emption, no circular wait

Question Number : 152 Question Id : 62321710470 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Consider a set of 5 processes whose arrival time, CPU time needed and the priority are given below.

Process priority	Arrival time (in ms)	CPU time needed (in ms)	Priority
P1	0	10	5
P2	0	5	2
P3	2	3	1
P4	5	20	4
P5	10	2	3

The meaning of the value of priority as “smaller the number, higher the priority”. What is the average waiting time for the priority scheduling with pre-emption policy?

Options :

1. 19 ms

2. 7.6 ms

3. 6.8 ms

4. None of the other options

Question Number : 153 Question Id : 62321710471 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Locality of reference implies that the page reference being made by a process

Options :

1. will always be to be the page used in the previous page reference

2. is likely to be one of the pages used in the last few page reference

3. will always be one of the page existing in memory

4. will always lead to a page fault

Question Number : 154 Question Id : 62321710472 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Wrong Marks : 0

Which of the following scheduling algorithms gives minimum average waiting time?

Options :

1. FCFS

2. SJF

3. Round-robin

Priority

4.

Question Number : 155 Question Id : 62321710473 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In which routing method do all the routers have a common databases?

Options :

Distance vector

1.

Link state

2.

Link vector

3.

None of the other options

4.

Question Number : 156 Question Id : 62321710474 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In sliding window flow control, if window size is 63, what is the range of sequence numbers?

Options :

0 to 63

1.

0 to 64

2.

1 to 63

3.

1 to 64

4.

Wrong Marks : 0

Error detection at the data link level is achieved by

Options :

1. bit stuffing
2. cyclic redundancy code
3. hamming codes
4. equalization

Wrong Marks : 0

In an Ethernet local area network, which one of the following statement is TRUE?

Options :

1. A station stops to sense the channel once it starts transmitting a frame
2. The purpose of the jamming signal is to pad the frames that are smaller than the minimum frame size
3. A station continues to transmit the packet even after the collision is detected
4. The exponential back-off mechanism reduces the probability of collision on retransmissions

Wrong Marks : 0

Which of the following is not a transceiver function?

Options :

1. Transmission and receipt of data

2. Checking of line voltage

3. Addition and subtraction of headers

4. Collision detection

Question Number : 160 Question Id : 62321710478 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A 100 km long cable runs at the T1 data rate. The propagation speed in the cable is half the speed of light. How many bits is in the cables?

Options :

1. 772

2. 672

3. 572

4. 873

Question Number : 161 Question Id : 62321710479 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following access control methods is probabilistic?

Options :

1. Polling

2. Contention

3. Token passing

Sliding window

4.

Question Number : 162 Question Id : 62321710480 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The _____ measures the number of lost or garbled messages as a fraction of the total sent in the sampling period.

Options :

1. residual error rate

2. transfer failure probability

3. connection release failure probability

4. connection establishment failure probability

Question Number : 163 Question Id : 62321710481 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Manchester code is a

Options :

1. bi-polar code, return to zero code

2. polar code, non-return to zero code

3. polar code, return zero code

4. bi-polar code, non-return zero code

Question Number : 164 Question Id : 62321710482 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In which of the pair of protocols uses multiple TCP connections between the same client and server?

Options :

1. HTTP, FTP

2. HTTP, TELNET

3. FTP, SMTP

4. HTTP, SMTP

Question Number : 165 Question Id : 62321710483 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Match the following based on “In which layer the following devices are used in computer networks”.

P. HUB

I. Network layer

Q. Bridge

II. Physical layer

R. Router

III. Transport layer

S. Gateways

IV. Data link layer

Options :

1. P-I, Q-III, R-II, S-IV

2. P-II, Q-IV, R-I, S-III

3. P-III, Q-II, R-I, S-IV

4. P-IV, Q-II, R-III, S-I

Question Number : 166 Question Id : 62321710484 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What is the maximum size of data that the application layer can pass on to the TCP layer below:

Options :

1. 2^{16} bytes

1.

2. Any size

2.

3. 2^{15} bytes

3.

4. 1500 bytes

4.

Question Number : 167 Question Id : 62321710485 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

To increase reliability, fault tolerance is included in the system in the form of multiple modules. If the problem can be solved by 5 different modules, each with probability of success 0.7, the probability that it can be solved even if 4 modules fall is approximately

Options :

1. 0.3

1.

2. 0.03

2.

3. 0.49

3.

4. 0.05

4.

Wrong Marks : 0

Which of the following is a desirable property of a module?

Options :

1. **Independency**
2. **Low cohesiveness**
3. **High coupling**
4. **Multi-functional**

Wrong Marks : 0

In one of the following coupling techniques, one component surreptitiously modifies data that is internal to another component

Options :

1. **Content coupling**
2. **Common coupling**
3. **Control coupling**
4. **Stamp coupling**

Wrong Marks : 0

The process of changing the software system in such a way that it does not alter the external behaviour of the code yet it improves the internal structure is

Options :

1. refactoring
2. reverse engineering
3. corrective maintenance
4. systems engineering

Question Number : 171 Question Id : 62321710489 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Find the number of strings of length 5 can be formed from the letters M A T H S and containing the substring H A T.

Options :

1. 5!
2. 4!
3. 3!
4. 2!

Question Number : 172 Question Id : 62321710490 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The relation $R = \{ (1,3), (1,1), (3,1), (1,2), (3,3), (4,4) \}$ defined in $\{ 1, 2, 3, 4 \}$ is ____

Options :

1. Reflexive and symmetric but not transitive.
2. Symmetric, anti symmetric and transitive.

A symmetric, anti symmetric and not transitive.

3.

Not reflexive, not symmetric and not transitive.

4.

Question Number : 173 Question Id : 62321710491 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If $*$ is a binary operation defined as $a * b = a + b + ab$ in $\mathbb{R} - \{1\}$ then the inverse of $\frac{1}{3}$ is ___

Options :

1. $-\frac{1}{4}$

1.

2. $\frac{1}{4}$

2.

3. $\frac{1}{6}$

3.

4. $\frac{1}{2}$

4.

Question Number : 174 Question Id : 62321710492 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If A is a square matrix of order 2 with trace -2 and determinant -35 then the eigen values of A are ___.

Options :

1. -5 and -30

1.

2. -37 and -1

3. -7 and 5

4. -2 and 17.5

Question Number : 175 Question Id : 62321710493 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The function $f(x) = 2x - x^2 + 3$ has _____

Options :

1. a maximum at $x = 1$ and minimum at $x = 5$

2. a maximum at $x = 1$ and minimum at $x = -5$

3. only maximum at $x = 1$

4. only minimum at $x = 5$

Question Number : 176 Question Id : 62321710494 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The system of equations $x + 2y + z = 6$, $2x + y + 2z = 6$, $x + y + z = 5$ has _____

Options :

1. Unique solution

2. No solution

3. Infinite number of solutions

Exactly two solutions

4.

Question Number : 177 Question Id : 62321710495 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Consider the function $f(x) = |x|$ in $[-3, 3]$. At $x = 0$, the function $f(x)$ is ___

Options :

1. Continuous and Differentiable.

1.

2. Differentiable but not continuous.

2.

3. Continuous but not Differentiable.

3.

4. Neither Continuous nor Differentiable.

4.

Question Number : 178 Question Id : 62321710496 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A bag contains 10 red balls and 15 blue balls. Two balls are drawn at random. The probability that one of them is blue and the other is red is _____

Options :

1. $\frac{1}{2}$

1.

2. $\frac{3}{5}$

2.

3. $\frac{3}{8}$

3.

$$\frac{2}{5}$$

4.

Question Number : 179 Question Id : 62321710497 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The exponential distribution $f(x)$ is defined by $f(x) = ae^{-2x}$, $0 < x < \infty$ then $a =$ _____

Options :

$$0$$

1.

$$1$$

2.

$$2$$

3.

$$3$$

4.

Question Number : 180 Question Id : 62321710498 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A random variable is uniformly distributed over the interval 2 to 10. Its variance will be _____

Options :

$$16$$

$$3$$

1.

$$6$$

2.

$$256$$

$$9$$

3.

