

Andhra Pradesh State Council of Higher Education

Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

Question Paper Name :	Computer Science and Applications 18th Oct 2022 Shift 2
Duration :	120
Total Marks :	140
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Research Methodology

Section Id :	549470364
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	59
Section Marks :	70
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 54947025889 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The most expected immediate outcome of teaching is

Options :

1. ✓
Changes in the behaviour of students in desirable direction
2. ✘
Development of total personality of students
3. ✘
Building characters of the students

Getting selected for a suitable job

4. ✖

Question Number : 2 Question Id : 54947025890 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Good teaching is best reflected by

Options :

Attendance of students

1. ✖

Number of distinctions

2. ✖

Meaningful questions asked by students

3. ✔

Pin-drop silence in the class

4. ✖

Question Number : 3 Question Id : 54947025891 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Listening to a lecture is basically

Options :

Informational listening

1. ✘

Evaluative listening

2. ✔

Emphatic listening

3. ✘

Dynamic Listening

4. ✘

Question Number : 4 Question Id : 54947025892 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a characteristic of a slow learner?

Options :

Limited vocabulary

1. ✘

Short span of attention

2. ✘

Abstract thinking

3. ✓

Limited range of interests

4. ✘

Question Number : 5 Question Id : 54947025893 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Dynamic approach to teaching means

Options :

Teaching should be forceful and effective

1. ✘

Teachers should be energetic and dynamic

2. ✘

The topics of teaching should not be static, but dynamic

3. ✘

The students should be required to learn through activities

4. ✓

Question Number : 6 Question Id : 54947025894 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For an efficient and durable learning, learner should have

Options :

Ability to learn only

1. ✘

Requisite level of motivation only

2. ✘

Opportunities to learn only

3. ✘

Desired level of ability and motivation

4. ✔

Question Number : 7 Question Id : 54947025895 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

National Literacy Mission was established in

Options :

1996

1. ✘

2. ✓
1988

3. ✘
1999

4. ✘
2000

Question Number : 8 Question Id : 54947025896 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Research can be conducted by a person who

Options :

1. ✘
Has studied research methodology

2. ✘
Holds a postgraduate degree

3. ✓
Possesses thinking and reasoning ability

Is a hard worker

4. ✘

Question Number : 9 Question Id : 54947025897 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following research specifically requires objectivity to discover facts and causes from the data gathered for the purpose?

Options :

Quantitative research

1. ✔

Fundamental research

2. ✘

Qualitative research

3. ✘

Action research

4. ✘

Question Number : 10 Question Id : 54947025898 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The classification of studies into exploratory, descriptive, analytical, or predictive research is based on

Options :

1. ✘ Logic of the research
2. ✘ Outcome of the research
3. ✘ Process of the research
4. ✔ Purpose of the research

Question Number : 11 Question Id : 54947025899 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of study will be preferred by a researcher to estimate the degree of relationship between the level of education and achievement motivation?

Options :

1. ✘ Naturalistic
2. ✘ Inventory
3. ✔ Correlational
4. ✘ Experimental

Question Number : 12 Question Id : 54947025900 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Good research ethics means

Options :

1. ✘ Not disclosing the holdings of shares or stocks in a company that sponsors your research
2. ✔ Assigning a particular research problem to one PhD or research student only

Discussing with your colleagues confidential data from a research paper that you are reviewing for an academic journal

3. ✘

Submitting the same research manuscript for publishing in more than one journal

4. ✘

Question Number : 13 Question Id : 54947025901 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A research paper

Options :

is a compilation of information on a topic

1. ✘

contains original research as deemed by the author

2. ✘

contains peer-reviewed original research or the evaluation of research conducted by others.

3. ✔

can be published in more than one journal.

4. ✘

Question Number : 14 Question Id : 54947025902 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Manipulation is always a part of

Options :

Historical research

1. ✘

Fundamental research

2. ✘

Descriptive research

3. ✘

Experimental research

4. ✔

Is Section Default? : null

Question Id : 54947025903 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Question Numbers : (15 to 21)

Read the following passage carefully and answer the questions from 15 to 21:

Ecosystems provide people with a variety of goods and services, food, clean water, clean air, flood control, soil stabilization, pollination, climate regulation, spiritual fulfilment, and aesthetic enjoyment, to name just a few. Most of these benefits are either irreplaceable or the technology necessary to replace them is prohibitively expensive. For example, potable freshwater can be provided by desalinating sea water, but only at great cost.

The rapidly expanding human population has greatly modified the earth's ecosystem to meet their increased requirements of some of the goods and services, particularly food, freshwater, timber, fibre, and fuel. These modifications have contributed substantially to human well being and economic development. However, the benefits have not been equally distributed. Some people have actually been harmed by these changes. Moreover, short-term increases in some ecosystems' goods and services have come at the cost of long-term degradation of others. For example, efforts to increase the production of food and fibre have decreased the ability of some ecosystems to provide clean water, regulate flooding, and support biodiversity.

Sub questions

**Question Number : 15 Question Id : 54947025904 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Expanding human population has an adverse effect on

- (A) Spiritual fulfilment
- (B) Availability of potable freshwater
- (C) Employment
- (D) Biodiversity

Which of the statements given above are correct?

Options :

(A), (B), and (C)

1. ✘

(B), (C), and (D)

2. ✘

(B) and (D)

3. ✔

All of the above

4. ✘

Question Number : 16 Question Id : 54947025905 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The passage mentions that 'some people have actually been harmed by these changes'. It indicates towards

Options :

Inequitable distribution of benefit

1. ✘

Decrease in the ability of some ecosystems to provide clean water, regulate flooding, and support biodiversity

2. ✘

Both (1) and (2)

3. ✔

Neither (1) nor (2)

4. ✘

Question Number : 17 Question Id : 54947025906 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is correct in the context of the passage?

Options :

1. ✓ The rapid expansion of population has adversely affected some people

Sufficient efforts have not been made to increase the production of food and fibre

2. ✘

In short term, some people may be harmed, but in long term, everyone will benefit from modifications in earth's ecosystem

3. ✘

4. ✘ No answer

Question Number : 18 Question Id : 54947025907 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

With reference to the passage, consider the following statements:

(A) It is imperative to modify the earth's eco-system for the well-being of mankind

(B) Technology can never replace all the goods and services provided by ecosystems

Which of the statements given above is/are correct?

Options :

Only (A)

1. ✘

Only (B)

2. ✔

Both (A) and (B)

3. ✘

Neither (A) nor (B)

4. ✘

Question Number : 19 Question Id : 54947025908 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

According to the passage, which of the following can be taken as the main reason for modification of earth's ecosystem?

Options :

Technology

1. ✘

Increasing population

2. ✔

Lack of an integrated approach

3. ✘

No answer

4. ✘

Question Number : 20 Question Id : 54947025909 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following can be considered as the most suitable title for the passage?

Options :

Modification of our ecosystem

1. ✔

Our natural resources

2. ✘

Harmful effect of increase in human population

3. ✘

Human interference in our ecosystem

4. ✘

Question Number : 21 Question Id : 54947025910 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

With reference to the passage, consider the following statements:

(A) Technology driven ecosystems are alternate means of future needs

(B) Technology helps in improving ecosystems on short term basis but at the cost of long term eco-degradation

Which of the statements given above is/are correct?

Options :

Only (A)

1. ✘

Only (B)

2. ✘

Both (A) and (B)

3. ✔

Neither (A) nor (B)

4. ✘

Is Section Default? :

null

Question Number : 22 Question Id : 54947025911 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The essential components of communication are

Options :

1. ✓ Source, message, interference, channel, receiver, feedback, and context

2. ✘ Sign, source, destination, interaction, and correlation

3. ✘ Signs, symbols, understanding, communication, and communicant

4. ✘ Symbols, understanding, purpose, ideas, opinions, non-verbal, and reaction

Question Number : 23 Question Id : 54947025912 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Another term used for interpersonal communication is

Options :

1. ✘ Group communication

Face-to-face public communication

2. ✘

Dyadic communication

3. ✔

Traditional communication

4. ✘

Question Number : 24 Question Id : 54947025913 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Communication in the class fails because

Options :

The students are inattentive

1. ✘

The teacher is monotonous in delivering the message

2. ✔

The students have no interest in the lesson being taught

3. ✘

There is very much noise in and around the classroom

4. ✖

Question Number : 25 Question Id : 54947025914 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The ability to understand, communicate with, motivate, and support other people, both individually and in groups, define which of the following organizational skills?

Options :

Hard skills

1. ✖

Soft skills

2. ✔

Conceptual skills

3. ✖

Political skills

4. ✖

Question Number : 26 Question Id : 54947025915 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In India for broadcasting TV programmes which system is followed?

Options :

1. ✘ NTCS

2. ✔ PAL

3. ✘ NTSE

4. ✘ SECAM

Question Number : 27 Question Id : 54947025916 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the process of communication, which one of the following is in the chronological order?

Options :

1. ✘ Communication, medium, receiver, effect message

Medium, communicator, message, receiver, effect

2. ✘

Communicator, message, medium, receiver, effect

3. ✔

Message, communicator, medium, receiver, effect

4. ✘

**Question Number : 28 Question Id : 54947025917 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Communication between two or more people is called

Options :

Organizational communication

1. ✘

Interpersonal communication

2. ✔

Extrapersonal communication

3. ✘

Intrapersonal communication

4. ✘

Question Number : 29 Question Id : 54947025918 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

1, 8, 27, 64, 125, 216, ...

Options :

1. ✘ 256

2. ✔ 343

3. ✘ 365

4. ✘ 400

Question Number : 30 Question Id : 54947025919 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

ABD, CDF, ..., GHJ, IJL

Options :

1. ✓ EFH

2. ✘ IJL

3. ✘ HIJ

4. ✘ HIK

Question Number : 31 Question Id : 54947025920 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If 'SELDOM' is coded as '1 2 4 3 6 5', how will you code 'MODE'?

Options :

1. ✘ 3 6 2 1

2. ✘ 6 2 3 1

3. ✓ 5 6 3 2

6 2 1 3

4. ✖

Question Number : 32 Question Id : 54947025921 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

E is the son of A; D is the son of B, E is married to C, C is the daughter of B. How is D related to E?

Options :

Brother

1. ✖

Uncle

2. ✖

Father-in-law

3. ✖

Brother-in-law

4. ✔

Question Number : 33 Question Id : 54947025922 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Raman travels a distance of 5 km in south direction. He turns to his right. After walking 3 km, he turns to the left and walks 5 km. Now in which direction is he from the starting place?

Options :

1. ✘ West
2. ✘ South
3. ✔ South-west
4. ✘ North-east

Question Number : 34 Question Id : 54947025923 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

P, Q, R, S, and T are sitting in a straight line facing north. P sits next to S but not to T. Q is sitting next to R, who sits on the extreme left corner. T does not sit next to Q. Who sits to the left of S?

Options :

1. ✓ P

2. ✘ Q

3. ✘ R

4. ✘ S

Question Number : 35 Question Id : 54947025924 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The year next to 1991 will have the same calendar as that of the year 1991.

Options :

1. ✘ 1992

2. ✘ 1995

3. ✘ 1996

1997

4. ✓

**Question Number : 36 Question Id : 54947025925 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

A disjunctive proposition is a type of

Options :

Conditional proposition

1. ✓

Unconditional proposition

2. ✘

Categorical proposition

3. ✘

Imperative proposition

4. ✘

**Question Number : 37 Question Id : 54947025926 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

‘Honesty is the best policy’ because

Options :

1. ✘ God rewards those who follow this maxim
2. ✘ It leads to recognition in the society
3. ✔ It facilitates cohesiveness in society
4. ✘ It leads to material prosperity and spiritual awakening

Question Number : 38 Question Id : 54947025927 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Given below are two statements followed by four conclusions numbered I, II, III, and IV. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow from the given statements.

Statements:

Some tables are TVs.

Some TVs are radios.

Conclusions:

I. Some tables are radios.

II. Some radios are tables.

III. All radios are TVs.

IV. All TVs are tables.

Options :

Only I and III follow

1. ✘

Only II and IV follow

2. ✘

3. ✘ All follow

4. ✔ None follows

**Question Number : 39 Question Id : 54947025928 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Given below are two statements followed by four conclusions numbered I, II, III, and IV. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follow from the given statements.

Statements:

All branches are flowers

All flowers are trees.

Conclusions:

I. All branches are trees.

II. All trees are branches.

III. All flowers are branches.

IV. Some trees are branches.

Options :

Only I and IV follow

1. ✓

Only II and III follow

2. ✘

All follow

3. ✖

None follows

4. ✖

Question Number : 40 Question Id : 54947025929 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following are voluntary provisions in the 73rd Constitutional Amendment Act (1992)?

- I. Minimum age of 21 for contesting elections to Panchayats
- II. Indirect elections to the post of Chairperson Panchayats at the intermediate and district levels.
- III. Representation of Members of Parliament and State Legislature on Panchayati Raj institutions
- IV. Reservation of seats for backward classes.

Select the correct answer from the code given below.

Options :

I, II, and IV

1. ✖

II, III, and IV

2. ✘

I, II, and III

3. ✘

III and IV

4. ✔

Question Number : 41 Question Id : 54947025930 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the statement 'some men are honest' is false, which among the following statements will be true? Choose the correct code given below.

(i) All men are honest.

(ii) No men are honest.

(iii) Some men are not honest.

(iv) All men are dishonest.

Options :

(i), (ii) and (iii)

1. ✔

(ii), (iii) and (iv)

2. ✖

(i), (iii) and (iv)

3. ✖

(ii), (i) and (iv)

4. ✖

Question Number : 42 Question Id : 54947025931 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Given below are two premises.

Premises:

(i) All saints are religious. (major)

(ii) Some honest persons are saints. (minor)

Four conclusions are drawn from those two premises in four codes. Select the code that states the conclusion validly drawn.

Options :

All saints are honest.

1. ✖

Some saints are honest.

2. ✖

Some honest persons are religious.

3. ✔

All religious persons are honest.

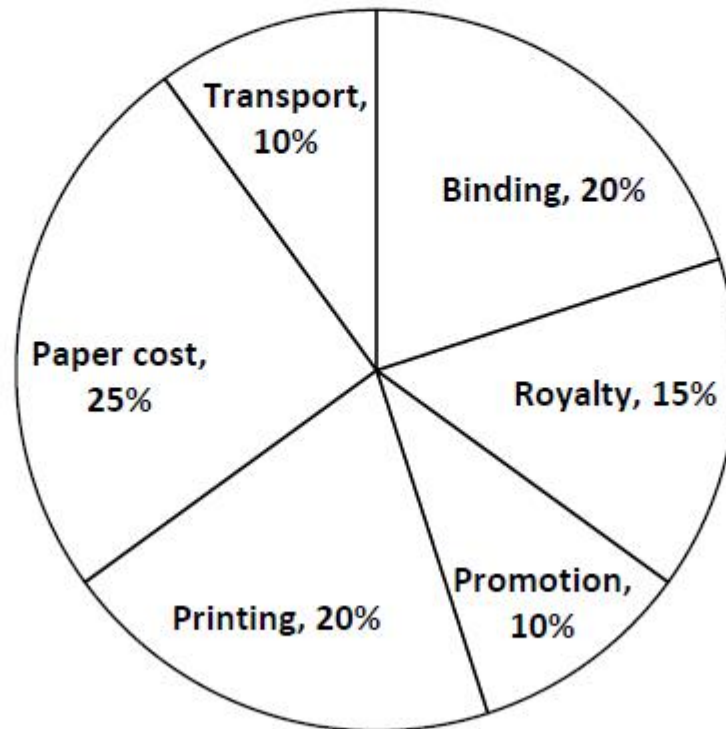
4. ✖

Is Section Default? : null

Question Id : 54947025932 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Question Numbers : (43 to 45)

Note:

Study the pie chart given below and answer questions 43, 44 and 45. It gives the breakup of expenses incurred in publishing a book.



Sub questions

Question Number : 43 Question Id : 54947025933 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the cost price of the book is Rs.150, then what is the combined printing and binding cost for a single copy of the book?

Options :

1. ✓ 60
2. ✘ 75
3. ✘ 80
4. ✘ 85

Question Number : 44 Question Id : 54947025934 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the central angle of the sector corresponding to the expenditure incurred on royalty?

Options :

1. ✘ 48°

2. ✓ 54°

3. ✗ 60°

4. ✗ 72°

Question Number : 45 Question Id : 54947025935 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the difference between promotion and printing cost in rupees if we assume that total cost is Rs.200

Options :

1. ✗ 10

2. ✓ 20

3. ✗ 30

4. ✗ 40

Is Section Default? :

null

Question Id : 54947025936 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Question Numbers : (46 to 49)

Note:

Study the following table carefully and answer questions 46–49. It consists of data on the number of candidates who appeared from five schools in the board exams over 2004–2008.

Year	Schools				
	A	B	C	D	E
2004	650	760	820	800	780
2005	700	740	860	780	740
2006	800	820	940	750	730
2007	750	880	920	840	790
2008	850	840	900	860	770

Sub questions

Question Number : 46 Question Id : 54947025937 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the average number of students who appeared from School B for all the years?

Options :

1. ✘ 676

2. ✘ 787

3. ✔ 808

4. ✘ 818

Question Number : 47 Question Id : 54947025938 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The number of students who appeared in 2006 from School A is what percent of the total number of students who appeared from School A for all the years together?

Options :

1. ✘ 25.25

2. ✔ 21.33

3. ✖ 22.45

4. ✖ 23.45

Question Number : 48 Question Id : 54947025939 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the ratio between the total numbers of students who appeared in 2004 and 2005 from Schools C and D, respectively?

Options :

1. ✔ 84 : 79

2. ✖ 79 : 84

3. ✖ 84 : 89

4. ✖ 89 : 84

Question Number : 49 Question Id : 54947025940 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the average number of students who appeared from the given schools in 2007?

Options :

825

1. ✘

836

2. ✔

845

3. ✘

863

4. ✘

Is Section Default? : null

Question Number : 50 Question Id : 54947025941 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The concept of connect intelligence is derived from

Options :

Virtual reality

1. ✘

Fuzzy logic

2. ✘

Bluetooth technology

3. ✘

Value-added networks

4. ✔

Question Number : 51 Question Id : 54947025942 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Programs designed to perform specific tasks are known as

Options :

System software

1. ✘

Application software

2. ✔

Utility programs

3. ✘

Operating system

4. ✘

Question Number : 52 Question Id : 54947025943 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a network device?

Options :

1. ✘ Router

2. ✘ Switch

3. ✘ Hub

4. ✔ CPU

Question Number : 53 Question Id : 54947025944 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following is a search engine?

Options :

Macromedia Flash

1. ✘

Google

2. ✔

Netscape

3. ✘

Librarians' Index to the Internet

4. ✘

**Question Number : 54 Question Id : 54947025945 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

FTP stands for

Options :

Full Text Processing

1. ✘

File Transfer Program

2. ✘

File Transfer Process

3. ✘

File Transfer Protocol

4. ✔

Question Number : 55 Question Id : 54947025946 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Wired Ethernet is basically

Options :

ADSL

1. ✘

ISDN

2. ✔

Broadband

3. ✘

The Internet

4. ✘

Question Number : 56 Question Id : 54947025947 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Eklavya Technology channel, started in 2003, is a distant-learning joint initiative between

Options :

1. ✓ IIT and IGNOU
2. ✘ IIIT and IGNOU
3. ✘ UGC and AICTE
4. ✘ IIT and AICTE

**Question Number : 57 Question Id : 54947025948 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which of the following gas affects human health by reducing blood's ability to carry oxygen to different parts of the body?

Options :

1. ✓ Carbon monoxide

2. ✘ Sulphur dioxide

3. ✘ Carbon dioxide

4. ✘ Nitrous dioxide

Question Number : 58 Question Id : 54947025949 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Acid rain is formed by the

Options :

1. ✓ Combination of chemical air pollutants with atmospheric water droplets

2. ✘ Mixing of acid with rain

Release of industrial pollutants in the atmosphere

3. ✘

4. ✘ No answer

Question Number : 59 Question Id : 54947025950 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Best extinguisher for inflammable materials is

Options :

1. ✘ Water

2. ✘ SO₂

3. ✔ CO₂

4. ✘ CO

Question Number : 60 Question Id : 54947025951 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Nuclear fusion reactions happens spontaneously in

Options :

The core of the earth

1. ✘

The commercial nuclear reactor

2. ✘

The atmosphere of the sun

3. ✔

The eruption of a volcano

4. ✘

Question Number : 61 Question Id : 54947025952 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The tallest trees in the world are found in the

Options :

Equatorial region

1. ✔

Temperate region

2. ✖

Monsoon region

3. ✖

Mediterranean region

4. ✖

Question Number : 62 Question Id : 54947025953 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following element is used in the making of solar cells?

Options :

Platinum

1. ✖

Carbon

2. ✖

Silicon

3. ✔

Silver

4. ✖

Question Number : 63 Question Id : 54947025954 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Organic food is supposed to be better for human health as

Options :

It is raised on special chemicals

1. ✖

It is more expensive

2. ✖

It is grown without the use of artificial fertilizers and pesticides

3. ✔

No answer

4. ✖

Question Number : 64 Question Id : 54947025955 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Ministry of Human Resource Development was created in the year

Options :

1. ✘ 1972

2. ✘ 1980

3. ✔ 1985

4. ✘ 1991

Question Number : 65 Question Id : 54947025956 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following agency or institution proposed introduction of India Education Index (IEI) for ranking institutes based on academic, research, performance, and other parameters?

Options :

1. ✘ AICTE

2. ✔ NAAC

3. ✖ UGC

4. ✖ IIT-Delhi

Question Number : 66 Question Id : 54947025957 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

India, that is Bharat, shall be a union of states. The states and the territories, thereof, shall be as specified in the

Options :

1. ✔ First Schedule

2. ✖ Second Schedule

3. ✖ Third Schedule

4. ✖ No answer

Question Number : 67 Question Id : 54947025958 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How do Directive Principles of State Policy differ from Fundamental Rights?

Options :

The former are meant for UTs, whereas the latter are for states.

1. ✘

The former are not enforceable, whereas the latter are enforceable.

2. ✔

The former are not a part of the constitution, whereas the latter are the part of the constitution.

3. ✘

4. ✘ No answer

**Question Number : 68 Question Id : 54947025959 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The maximum strength of Lok Sabha and Rajya Sabha, respectively, is

Options :

552 and 250

1. ✘

537 and 275

2. ✘

525 and 238

3. ✘

545 and 250

4. ✔

Question Number : 69 Question Id : 54947025960 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which subject was transferred from state list to Concurrent List by the 42nd amendment of the constitution?

Options :

Agriculture

1. ✘

Education

2. ✔

Irrigation

3. ✘

Local self-government

4. ✖

Question Number : 70 Question Id : 54947025961 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Who is the highest Law Officer of a state?

Options :

Attorney General

1. ✖

Advocate General

2. ✔

Solicitor General

3. ✖

Secretary General

4. ✖

Computer Science and Applications

Section Id :

549470365

Section Number :

2

Mandatory or Optional :

Mandatory

Number of Questions :	70
Section Marks :	70
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 71 Question Id : 54947025962 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Extension of Active X Controls

Options :

1. ✘ .OXC
2. ✔ .OCX
3. ✘ .acv
4. ✘ .acx

Question Number : 72 Question Id : 54947025963 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Any non-trivial semantic property of a language which is recognized by a Turing machine is undecidable is defined as

Options :

1. ✘ Thomas Theorem

2. ✘ Cooks Theorem
3. ✘ Mealy Theorem
4. ✔ Rice Theorem

Question Number : 73 Question Id : 54947025964 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ system call is used for positioning the offset pointer.

Options :

1. ✘ read
2. ✔ lseek
3. ✘ open
4. ✘ write

Question Number : 74 Question Id : 54947025965 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Dead-code elimination in machine code optimization refers to _____

Options :

1. ✘ Removal of all labels.
2. ✘ Removal of a module after its use.
3. ✔ Removal of values that never get used
4. ✘ Removal of function which are not involved.

Question Number : 75 Question Id : 54947025966 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Mutual information is intimately related to the

Options :

1. ✔ Kullback-Leibler divergence
2. ✘ f-divergence
3. ✘ Bregman divergence
4. ✘ chi-squared divergence

Question Number : 76 Question Id : 54947025967 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is true?

Options :

1. ✘ B + tree allows only the rapid random access
2. ✘ B + tree allows only the rapid sequential access
3. ✔ B + tree allows rapid random access as well as rapid sequential access
4. ✘ B + tree allows rapid random access and slower sequential access

Question Number : 77 Question Id : 54947025968 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When every two elements in the set are comparable, the relation is called a

Options :

1. ✔ Total ordering
2. ✘ Partial ordering
3. ✘ Equivalence ordering
4. ✘ Full ordering

Question Number : 78 Question Id : 54947025969 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a function template?

Options :

1. ✘ creating a function without class
2. ✘ creating a function with having an exact type
3. ✘ creating a function without having blank spaces
4. ✔ creating a function without having to specify the exact type

Question Number : 79 Question Id : 54947025970 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

2's complement of 11001011 is _____

Options :

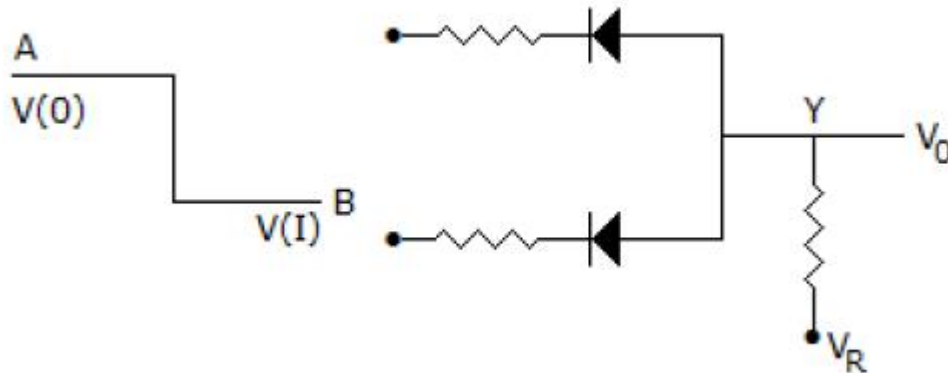
1. ✘ 01010111
2. ✘ 11010100
3. ✔ 00110101

11100010

4. ✖

Question Number : 80 Question Id : 54947025971 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The circuit in the given figure is a gate.



Options :

- 1. ✖ positive logic OR gate
- 2. ✔ negative logic OR gate
- 3. ✖ negative logic AND gate
- 4. ✖ positive logic AND gate

Question Number : 81 Question Id : 54947025972 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following can be considered as the correct process of Data Mining?

Options :

1. ✓ Infrastructure, Exploration, Analysis, Interpretation, Exploitation
2. ✘ Exploration, Infrastructure, Analysis, Interpretation, Exploitation
3. ✘ Exploration, Infrastructure, Interpretation, Analysis, Exploitation
4. ✘ Exploration, Infrastructure, Analysis, Exploitation, Interpretation

Question Number : 82 Question Id : 54947025973 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

MTTF stands for

Options :

1. ✘ Minimum time to failure
2. ✓ Mean time to failure
3. ✘ Maximum time to failure

None of these

4. ✘

Question Number : 83 Question Id : 54947025974 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Write system call returns -1 when _____

Options :

1. ✘ if disk fills up while write is in progress

2. ✘ when file doesn't exist

3. ✘ if the file size exceeds the system's limit

4. ✔ if disk fills up while write is in progress and if the file size exceeds

Question Number : 84 Question Id : 54947025975 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following statements about peephole optimization is False?

Options :

1. ✘ It is applied to a small part of the code

2. ✘ It can be used to optimize intermediate code

3. ✘ To get the best out of this, it has to be applied repeatedly

4. ✔ It can be applied to the portion of the code that is not contiguous

Question Number : 85 Question Id : 54947025976 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In _____ method the required resources are reserved for the duration of the session between end systems

Options :

1. ✔ Circuit Switching

2. ✘ Packet Switching

3. ✘ Channel Switching

4. ✘ Frequency Switching

Question Number : 86 Question Id : 54947025977 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is the most widely used external memory data structure?

Options :

1. ✘ AVL tree
2. ✔ B-tree
3. ✘ Red-black tree
4. ✘ Both AVL tree and Red-black tree

Question Number : 87 Question Id : 54947025978 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Four channels two with a bit rate of 160kbps and two with a bit rate 120 kbps are multiplexed using multiple slots TDM with no synchronization bits. If we assume 4 bits from the first two sources and 3 bits from the second two sources what is the output data rate?

Options :

1. ✘ 280kbps
2. ✔ 560kbps
3. ✘ 640kbps
4. ✘ 720kbps

Question Number : 88 Question Id : 54947025979 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What happens if a user forgets to define a constructor inside a class?

Options :

1. ✘ Error occurs
2. ✘ Segmentation fault
3. ✘ Objects are not created properly
4. ✔ Compiler provides a default constructor to avoid faults/errors

Question Number : 89 Question Id : 54947025980 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Operating frequency band of IEEE 802.11a standard.

Options :

1. ✘ 2.5GHz
2. ✔ 5GHz
3. ✘ 2.5GHz and 5GHz

4. ✖ 10GHz

Question Number : 90 Question Id : 54947025981 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A tree having a main node, which has no predecessor is _____?

Options :

1. ✖ Spanning tree

2. ✔ Rooted tree

3. ✖ Weighted tree

4. ✖ None of these

Question Number : 91 Question Id : 54947025982 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is a predictive model?

Options :

1. ✖ Clustering.

2. ✓ Regression.
3. ✘ Summarization.
4. ✘ Association rules.

Question Number : 92 Question Id : 54947025983 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following is not true about isolation levels in database servers?

Options :

1. ✘ Read uncommitted
2. ✓ Write uncommitted
3. ✘ Serializable
4. ✘ Repeatable read

Question Number : 93 Question Id : 54947025984 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Maximum and Minimum number of nodes in a binary tree of height 6 are

Options :

1. ✘ 128 and 8
2. ✔ 127 and 7
3. ✘ 64 and 8
4. ✘ 63 and 7

Question Number : 94 Question Id : 54947025985 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following derivations does a top-down parser use while parsing an input string?

Options :

1. ✘ Leftmost derivation in reverse
2. ✔ Leftmost derivation
3. ✘ Rightmost derivation
4. ✘ Rightmost derivation in reverse

Question Number : 95 Question Id : 54947025986 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A proxy firewall filters at _____

Options :

1. ✘ Physical layer
2. ✘ Data link layer
3. ✘ Network layer
4. ✔ Application layer

Question Number : 96 Question Id : 54947025987 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider a Min heap with elements 14, 30, 25, 40, 43, 28. After inserting the elements 21 and 6, the level order traversal sequence would be

Options :

1. ✘ 6, 14, 21, 30, 40, 43, 28, 25
2. ✘ 6, 14, 21, 30, 43, 40, 28, 25
3. ✘ 6, 14, 21, 30, 28, 43, 40, 25

4. ✓ 6, 14, 21, 30, 43, 28, 25, 40

Question Number : 97 Question Id : 54947025988 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a base class is inherited in protected access mode then which among the following is true?

Options :

1. ✘ Only private members of base, become private of derived class
2. ✘ Only protected members become protected members of derived class
3. ✘ Private, Protected and Public all members of base, become private of derived class
4. ✓ Public and Protected members of base class becomes protected members of derived class

Question Number : 98 Question Id : 54947025989 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

For an undirected graph with n vertices and e edges, sum of the degrees of each vertex is equal to

Options :

1. ✘ $2e+1$

2. ✘ $2n - 1$

3. ✔ $2e$

4. ✘ $2n$

Question Number : 99 Question Id : 54947025990 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A programming language is to be designed to run on a machine that does not have a big memory. The language should

- i) Prefer a two-pass compiler to a one-pass compiler
- ii) Prefer a one-pass compiler to a two-pass compiler
- iii) Prefer an interpreter to a compiler
- iv) Not support recursion

Choose correct option

Options :

1. ✘ (i) and (ii) are true

2. ✘ (iii) and (iv) are true

3. ✘ (i), (ii) and (iii) are true

4. ✔ (i), (iii) and (iv) are true

Question Number : 100 Question Id : 54947025991 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The maximum number of edges in a bipartite graph on 12 vertices is _____

Options :

1. ✔ 36

2. ✘ 48

3. ✘ 12

4. ✘ 24

Question Number : 101 Question Id : 54947025992 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Identify the term used to define the multidimensional model of the data warehouse.

Options :

1. ✘ Tree

2. ✘ Table
3. ✘ Data Structure
4. ✔ Data cube

Question Number : 102 Question Id : 54947025993 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The following list in two columns shows various activities encountered in a software life cycle. Match the appropriate items in the list.

List 1

- A. Requirements Capture
- B. Design
- C. Implementation
- D. Maintenance

List 2

- P. Module development and Integration
- Q. Domain analysis
- R. Structural and behavioral modeling
- S. Performance Tuning

Options :

1. ✘ A-R, B-Q ,C-S,D-P
2. ✔ A-Q, B-R ,C-P,D-S
3. ✘ A-R, B-Q ,C-P,D-S

4. ✘ A-Q, B-R ,C-S,D-P

Question Number : 103 Question Id : 54947025994 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An increase in a computer's RAM leads to a typical improvement in performance because:

Options :

1. ✔ Fewer page faults occur
2. ✘ Virtual memory increases
3. ✘ Fewer segmentation faults occur
4. ✘ A larger RAM is faster

Question Number : 104 Question Id : 54947025995 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is a tool that is typically used for controlling execution, setting break points and manipulating a runtime state.

Options :

1. ✘ Code level debugger

2. ✘ Symbolic debugger

3. ✘ Executive level debugger

4. ✔ Source level debugger

Question Number : 105 Question Id : 54947025996 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following grammar rules violate the requirements of an operator precedence grammar? Here P, Q and R are non-terminals, and r, s, t are terminals.

(i) $P \rightarrow QR$

(ii) $P \rightarrow QsR$

(iii) $P \rightarrow \varepsilon$

(iv) $P \rightarrow QtRr$

Choose correct option

Options :

1. ✘ (i) only

2. ✔ (i) and (iii) only

3. ✘ (ii) and (iii) only

4. ✘ (iii) and (iv) only

Question Number : 106 Question Id : 54947025997 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The main objective of designing various modules of a software system is

Options :

1. ✘ To decrease the cohesion and to increase the coupling

2. ✔ To increase the cohesion and to decrease the coupling

3. ✘ To increase the coupling only

4. ✘ To increase the cohesion only

Question Number : 107 Question Id : 54947025998 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Components used for interconnecting dissimilar networks that use different communication protocols.

Options :

1. ✘ Switches

2. ✓ Gateways

3. ✗ Routers

4. ✗ Bridges

Question Number : 108 Question Id : 54947025999 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A single processor software is expected to operate for 91.25 days after repair and the mean software repair time is expected to be 5 minutes. Then, the availability of the software is

Options :

1. ✗ 96.9862%

2. ✗ 97.9862%

3. ✗ 98.9962%

4. ✓ 99.9962%

Question Number : 109 Question Id : 54947026000 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The boolean function $A + BC$ is a reduced form of _____

Options :

1. ✘ $AB + BC$
2. ✔ $(A + B)(A + C)$
3. ✘ $A'B + AB'C$
4. ✘ $(A + C)B$

Question Number : 110 Question Id : 54947026001 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider the statements:

- I. $A \Leftrightarrow A \vee \sim A$
- II. $A \Leftrightarrow A \vee A$
- III. $A \vee B \Rightarrow A$
- IV. $A \Rightarrow A \vee B$

Which of the above refers to Tautologies

Options :

1. ✘ I and II
2. ✘ I

3. ✘ III

4. ✔ II and IV

Question Number : 111 Question Id : 54947026002 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The features of digital signatures are.....

- i. Authentication
- ii. Confidentiality
- iii. Repudiation
- iv. Integrity

Options :

1. ✘ i, ii, iii, iv

2. ✔ i, ii, iv

3. ✘ i, ii, iii

4. ✘ iii

Question Number : 112 Question Id : 54947026003 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following statements are TRUE?

- I. The context diagram should depict the system as a single bubble
- II. External entities should be identified clearly at all levels of DFDs
- III. Control information should not be represented in a DFD
- IV. A data store can be connected either to another data store or to an external entity.

Options :

- 1. ✘ II and III
- 2. ✘ I, II and IV
- 3. ✘ I and III
- 4. ✔ I, II and III

Question Number : 113 Question Id : 54947026004 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Out of these page replacement algorithms, which one suffers from Belady's anomaly?

Options :

- 1. ✘ LRU
- 2. ✔ FIFO

3. ✘ Both LRU and FIFO

4. ✘ Optimal Page Replacement

Question Number : 114 Question Id : 54947026005 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is NOT a clustering method?

Options :

1. ✘ K-Means method

2. ✘ Self-organization feature map method

3. ✔ K-nearest neighbor method

4. ✘ Agglomerative method

Question Number : 115 Question Id : 54947026006 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Information bearing channels in ISDN are called _____

Options :

1. ✘ D channels

2. ✘ Data channels

3. ✔ B channels

4. ✘ Voice channels

Question Number : 116 Question Id : 54947026007 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many queues are needed to implement a stack? Consider the situation where no other data structure like arrays, linked list is available to you.

Options :

1. ✘ 1

2. ✔ 2

3. ✘ 3

4. ✘ 4

Question Number : 117 Question Id : 54947026008 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What will the result of num1 variable after execution of the following statements?

```
int j = 1, num1 = 4;
while (++j <= 10)
{
    num1++;
}
```

Options :

1. ✘ 11
2. ✘ 12
3. ✔ 13
4. ✘ 14

Question Number : 118 Question Id : 54947026009 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is NOT TRUE about Microsoft Foundation Class (MFC)?

Options :

MFC is library provides a set of functions, constants, data types, and classes to simplify creating applications for the Microsoft Windows operating systems

1. ✘

2. ✘ The MFC framework provides a set of reusable classes designed to simplify Windows programming
3. ✘ The framework also provides a solid foundation for more advanced features, such as ActiveX and document view processing
4. ✔ Microsoft Foundation Class is also called as Windows Communication Foundation (WCF)

Question Number : 119 Question Id : 54947026010 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A basic S-R flip-flop can be constructed by cross-coupling of which basic logic gates?

Options :

1. ✘ AND or OR gates
2. ✘ XOR or XNOR gates
3. ✔ NOR or NAND gates
4. ✘ AND or NOR gates

Question Number : 120 Question Id : 54947026011 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The logic circuits whose outputs at any instant of time depends only on the present input but also on the past outputs are called _____

Options :

1. ✘ Combinational circuits
2. ✔ Sequential circuits
3. ✘ Latches
4. ✘ Flip-flops

Question Number : 121 Question Id : 54947026012 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The size of virtual memory is based on which of the following?

Options :

1. ✘ CPU
2. ✘ RAM
3. ✘ Data bus

4. ✓ Address bus

Question Number : 122 Question Id : 54947026013 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the major drawback of the Spiral Model?

Options :

1. ✘ Higher amount of risk analysis
2. ✓ Doesn't work well for smaller projects
3. ✘ Additional functionalities are added later on
4. ✘ Strong approval and documentation control

Question Number : 123 Question Id : 54947026014 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The expression $5-2-3*5-2$ will evaluate to 18, if

Options :

1. ✘ – is left associative and * has precedence over –
2. ✘ – is Right associative and * has precedence over –

3. ✓ – is Right associative and - has precedence over *

4. ✘ – is left associative and - has precedence over *

Question Number : 124 Question Id : 54947026015 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The part of the machine level instruction, which tells the central processor what has to be done is:

Options :

1. ✘ Locator

2. ✓ Operation code

3. ✘ Flip Flop

4. ✘ Address

Question Number : 125 Question Id : 54947026016 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which address is used to identify a process on a host by the transport layer?

Options :

1. ✘ physical address

2. ✘ logical address
3. ✔ port address
4. ✘ specific address

Question Number : 126 Question Id : 54947026017 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assume that the random number generating function -rand(), returns an integer between 0 and 1000 (both inclusive). If you want to simulate the throwing of a die using this random function then the expression to be used is _____

Options :

1. ✘ rand() %6
2. ✔ rand() %6 +1
3. ✘ rand() %5 +1
4. ✘ rand() %6 +6

Question Number : 127 Question Id : 54947026018 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assume that objects of the type short, float and long occupy 2 bytes, 4 bytes and 8 bytes, respectively. The memory requirement for variable t

```
struct {  
    short s [5];  
    union {  
        float y;  
        long z;  
    }u;  
} t;
```

Options :

1. ✘ 22 bytes
2. ✔ 18 bytes
3. ✘ 14 bytes
4. ✘ 10 bytes

Question Number : 128 Question Id : 54947026019 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider a System having m resources of the same type. These resources are shared by 3 Processes X, Y and Z which have peak demands of 3,4 and 6 respectively. For what value of m Deadlock will not occur?

Options :

1. ✘ 7

2. ✘ 9

3. ✘ 10

4. ✔ 11

Question Number : 129 Question Id : 54947026020 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Let S and Q be two semaphores initialized to 1, where P0 and P1 processes the following statements

Wait(S); wait(Q); ----; signal(S); signal(Q) and

Wait(Q); wait(S); ----; signal(Q); signal(S); respectively. The above situation depicts a _____ .

Options :

1. ✘ Semaphore

2. ✔ Deadlock

3. ✘ Signal

4. ✘ Interrupt

Question Number : 130 Question Id : 54947026021 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not an application of inclusion-exclusion principle?

Options :

1. ✘ Counting intersections
2. ✘ Graph colouring
3. ✘ Matching of bipartite graphs
4. ✔ Maximum flow problem

Question Number : 131 Question Id : 54947026022 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is parallel virtual machine?

Options :

1. ✘ Parallel virtual machine is a centralized computing system developed by joining a set of serial computers
2. ✔ Parallel virtual machine is a distributed computing system developed by joining a set of parallel computers

3. ✘ Parallel virtual machine is a centralized computing system developed by joining a set of parallel computers

4. ✘ Parallel virtual machine is a distributed computing system developed by joining a set of serial computers

Question Number : 132 Question Id : 54947026023 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Constructive Cost Model (COCOMO) is used to estimate

Options :

1. ✘ size, effort and duration based on the cost of the software

2. ✘ size and duration based on the effort of the software

3. ✔ effort and duration based on the size of the software

4. ✘ effort and cost based on the duration of the software

Question Number : 133 Question Id : 54947026024 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of following is not an advantage of multiprogramming?

Options :

1. ✘ increased throughput
2. ✘ shorter response time
3. ✘ ability to assign priorities of jobs
4. ✔ decreased system overload

Question Number : 134 Question Id : 54947026025 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider the following relation schema pertaining to a student database.

Student: (rollno, name, address)

Enroll: (rollno, courseno, coursename)

where the primary keys are shown underlined. The number of tuples in the Student and the Enroll tables are 120 and 8 respectively. What are the maximum and the minimum number of tuples that can be present in (Student * Enroll), where * denotes natural join?

Options :

1. ✘ 8,8
2. ✘ 120, 8

3. ✘ 960, 8

4. ✔ 960, 120

Question Number : 135 Question Id : 54947026026 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

TCP/IP model does not have _____ layer but OSI model have this layer.

Options :

1. ✔ session layer

2. ✘ transport layer

3. ✘ application layer

4. ✘ network layer

Question Number : 136 Question Id : 54947026027 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is the disadvantage of the array?

Options :

1. ✘ Stack and Queue data structures can be implemented through an array.

2. ✘ Index of the first element in an array can be negative

3. ✘ Elements can be accessed sequentially.

4. ✔ Wastage of memory if the elements inserted in an array are lesser than the allocated size

Question Number : 137 Question Id : 54947026028 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A _____ usually stores all the user-related data and information, and it is also relevant to the GSM mobile systems.

Options :

1. ✔ SIM

2. ✘ CMR

3. ✘ HMR

4. ✘ VLR

Question Number : 138 Question Id : 54947026029 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assume transaction A holds a shared lock on R. If transaction B also requests for a shared lock on R,

Options :

1. ✘ it will result in a deadlock situation
2. ✘ it will immediately be granted
3. ✘ it will immediately be rejected
4. ✔ it will be granted as soon as it is released by A

Question Number : 139 Question Id : 54947026030 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following logic families has the shortest propagation delay?

Options :

1. ✘ CMOS
2. ✘ BiCMOS
3. ✔ ECL

4. ✘ 74SXX

Question Number : 140 Question Id : 54947026031 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider the binary relation $R = \{(x, y), (x, z), (z, x), (z, y)\}$ on the set $\{x, y, z\}$.
Which one of the following is TRUE?

Options :

1. ✘ R is symmetric but NOT antisymmetric
2. ✘ R is NOT symmetric but antisymmetric
3. ✘ R is both symmetric and antisymmetric
4. ✔ R is neither symmetric nor antisymmetric