

PREVIEW QUESTION BANK

Module Name : Computer Application - 70-ENG
Exam Date : 29-Jun-2024 Batch : 14:30-16:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	201	Movement of DNA from one bacterium to another through a tubular bridge or pilus: 1. Conjugation 2. Transposition 3. Transfection 4. Transduction A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	202	Which of the following is responsible for eliminating toxic oxygen by-products from cells? 1. Mitochondria 2. Golgi complex 3. Peroxisomes 4. Chloroplasts A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
3	203	A form of multiple parasitism in which a parasite preferentially attacks a host that is already parasitized by another species is known as 1. Cleptoparasitism 2. Ectoparasitoid 3. Obligate parasitism 4. Superparasitism A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

4	204	For mass multiplication of DD-136 nematode, the common host used is 1. Silk moth 2. Fruit sucking moth 3. Codling moth 4. Lesser wax moth A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

5	205	Chlorpyrifos methyl is effective against stored product insects except 1. <i>Rhizopertha dominica</i> 2. <i>Tribolium castaneum</i> 3. <i>Caryedon serratus</i> 4. <i>Oryzaephilus surinamensis</i> A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

6	206	Which of the following insects often cause inhalational allergies in human following large emergence of adult insects 1. Stick insects 2. May flies 3. Ear wigs 4. Preying mantis A1 : 1 A2 : 2	4.0	1.00
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A3 : 3

A4 : 4

Objective Question

7	207		4.0	1.00
Given below are two statements: Statement (I): Climate is a weather condition related to smaller areas at a given place and at a given time, Statement (II): Weather is a condition of atmosphere at a given place and at a given time In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. 1. Both Statement (I) and Statement (II) are correct. 2. Both Statement (I) and Statement (II) are incorrect. 3. Statement (I) is correct but Statement (II) is incorrect. 4. Statement (I) is incorrect but Statement (II) is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4				

Objective Question

8	208		4.0	1.00
The local name of cyclone in Phillippines is 1. Hurricane 2. Cyclone 3. Baquio 4. Typhoon A1 : 1 A2 : 2 A3 : 3 A4 : 4				

Objective Question

9	209		4.0	1.00

Which one of the following are secondary tillage implements?

- (A).Subsoiler
- (B).Cultivator
- (C).Disc harrow
- (D).Wetland plough

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

10 210

_____ is the most suitable, drought resistant and persistent grass?

- 1. *Alyosia sp.*
- 2. *Cenchrus ciliaris*
- 3. *Stylosanthes hamata*
- 4. *Sorghum bicolor*

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

11 211

The rainfed area in India is approximately

- 1. 30 mha
- 2. 40 mha
- 3. 57 mha
- 4. 70 mha

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

12	212	Which nutrient is often a limiting factor in agricultural production?	4.0	1.00
		1. Nitrogen 2. Carbon 3. Oxygen 4. Hydrogen		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

13	213	What is a potential disadvantage of agroforestry systems?	4.0	1.00
		1. Increased soil erosion 2. Decreased carbon sequestration 3. Reduced biodiversity 4. Enhanced susceptibility to pests		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

14	214	Pungency in mustard oil is due to	4.0	1.00
		1. Amino acid 2. Allyl isothiocyanate 3. Erusic acid 4. Oxalic acid		
		A1 : 1		
		A2 : 2		

		A3 : 3		
		A4 : 4		
Objective Question				
15	215	Sesamum belongs to the family 1. Chenopodiaceae 2. Papilionaceae 3. Leguminosae 4. Pedaliaceae A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
16	216	Dark period is critical in which type of plant? 1. Short day plant 2. Long day plant 3. Day neutral plant 4. All the options A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
17	217	Which of the following is NOT a significant contributor to greenhouse gas emissions from livestock farming? 1. Carbon dioxide 2. Methane 3. Nitrous oxide 4. Ammonia A1 : 1 A2 : 2 A3 : 3	4.0	1.00

A4 : 4

Objective Question

18	218	Fe deficiency is mostly seen in crops growing on 1. Calcareous or alkaline soils 2. Salt affected soils 3. Acidic soils 4. Neutral soils A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

19	219	EDV (Essentially Derived Varieties) are those which are derived from: 1. crossing two commercially known varieties 2. hybrid introduced from other countries 3. existing variety through genetic engineering or mutation 4. crossing commercially known variety with its wild relative A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

20	220	What is the role of "companion planting" in agriculture? 1. Enhancing soil fertility through crop rotation 2. Growing different crop species together to deter pests 3. Cultivating plants in hydroponic system 4. Increasing soil compaction through cover cropping A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
21	2901	If the correlation coefficient between body weight of full sibs is 0.25, then the heritability of this trait in this population is - less than 0.25 0.35 0.50 0.75 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
22	2902	At what allelic frequency is the heterozygous genotype (Aa) twice as frequent as the homozygous genotype (aa) in a Hardy-Weinberg population? - p = 0.2; q = 0.8 - p = 0.3; q = 0.7 - p = 0.4; q = 0.6 - p = 0.5; q = 0.5 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
23	2903	If $X \sim N(0,1)$ and $Y = X^2$, then the correlation between X and Y is -1 0 0.5 1 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

24	2904	If an individual of genotype AaBbCcDd is testcrossed, how many different phenotypes can appear in the progeny? 1. 16 2. 32 3. 64 4. 256 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

25	2905	If in the analysis of variance of a completely randomized design, the d.f. for the treatment sum of squares is 4 and the mean sum of squares due to error is 2, while the observed F-value for testing significance of treatment differences is 12.5, then which one of the following represents correctly the treatment sum of squares? 1. 25 2. 50 3. 75 4. 100 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

26	2906	If two Latin squares each of the same order are such that when one is superimposed over the other, each symbol of one falls on each symbol of the other once and only once, then the two Latin squares are said to be 1. Conjugate 2. Self-conjugate 3. Orthogonal 4. Reduced A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4																		
Objective Question																				
27	2907	The following is a BIBD with parameters $v = 4, b = 4, k = 3, r = 3, \lambda = 2$ <table><tr><td>Block 1</td><td>1</td><td>3</td><td>4</td></tr><tr><td>Block 2</td><td>2</td><td>3</td><td>4</td></tr><tr><td>Block 3</td><td>1</td><td>2</td><td>4</td></tr><tr><td>Block 4</td><td></td><td></td><td></td></tr></table> Block 4 contains 1. 1 4 2 2. 2 4 3 3. 2 3 1 4. 4 1 3 A1 : 1 A2 : 2 A3 : 3 A4 : 4	Block 1	1	3	4	Block 2	2	3	4	Block 3	1	2	4	Block 4				4.0	1.00
Block 1	1	3	4																	
Block 2	2	3	4																	
Block 3	1	2	4																	
Block 4																				
Objective Question																				
28	2908	A coin is tossed until a head appears. What is the expectation of the number of tosses required? 1. 0.5 2. 1 3. 2 4. 4 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00																
Objective Question																				
29	2909		4.0	1.00																

Of the 36 accounts drawn randomly from a very large number of accounts in a certain bank, 12 had a deposit of less than Rs. 1500. The estimated standard error for the estimate of the proportion of accounts having a deposit of less than Rs. 1500 is

1. $\frac{2}{105}$
2. $\frac{2}{315}$
3. $\frac{1}{3} \sqrt{\frac{2}{35}}$
4. $\frac{1}{9\sqrt{2}}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

30	2910	Two samples of size n are selected, one according to SRSWR and the other according to SRSWOR. Under SRSWR, V_1 stands for variance of sample mean based on all units while V_2 stands for the variance of sample mean based on distinct units. V_3 stands for the variance of sample mean based on SRSWOR. Which one of the following holds ? 1. $V_1 \geq V_2 \geq V_3$ 2. $V_2 \geq V_1 \geq V_3$ 3. $V_3 \geq V_2 \geq V_1$ 4. $V_3 \geq V_1 \geq V_2$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

31	2911	A simple random sample of 4 households was drawn from a village containing 120 households. The number of persons per household in the sample were 6, 4, 7 and 3. The estimate of the total number of people in the village is 1. 20 2. 80 3. 600 4. 2400 A1 : 1 A2 : 2 A3 : 3	4.0	1.00
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		A4 : 4		
Objective Question				
32	2912	If the events $A_1, A_2, \dots, A_n$ are independent and $P(A_i) = \frac{1}{1+i}$ for $1 \leq i \leq n$, then the probability that none of these n events occurs is 1. $1/(n+1)$ 2. $\frac{1}{(n+1)!}$ 3. $n/(n+1)$ 4. $1 - \frac{1}{(n+1)!}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
33	2913	A committee of 4 people is to be appointed from 3 officers of the production department, 4 officers of the purchase department, 2 officers of the sales department and 1 chartered accountant. The probability that the chartered accountant must be in the committee is: 1. 8/70 2. 1/14 3. 13/14 4. 2/5 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
34	2914	In an experiment, the experimenter observes proportion of individuals affected by a disease in each of the plots by examining a random sample of individuals within each plot. If p is the observed proportion, then the appropriate variance stabilizing transformation in this case will be 1. Square root transformation 2. Sine inverse transformation 3. Logarithmic transformation 4. Fisher's z-transformation A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

35 2915

The Neyman-Pearson fundamental lemma gives the method of construction of

1. Uniformly most powerful test
2. Most powerful test
3. Randomized test
4. Unbiased test

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

36 2916

Which one of the following non-parametric tests is analogous to Chi-square test of goodness of fit?

1. Median test
2. Kolmogorov-Smirnov test
3. Mann-Whitney Test
4. Wilcoxon Test

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

37 2917

4.0

1.00

Which of the following statement(s) are correct?

- (A). Mean and variance are equal for Poisson distribution.
- (B). Mean is greater than variance for binomial distribution.
- (C). Mean is less than variance for Chi-square distribution.

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

1. (A) and (B) only.
2. (B) and (C) only.
3. (A) and (C) only.
4. (A), (B) and (C) .

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

38	2918	In a Chi-square test, the contingency table has 5 rows and 5 columns. What is the number of degrees of freedom?	4.0	1.00
1. 10 2. 12 3. 16 4. 25				
A1 : 1 A2 : 2 A3 : 3 A4 : 4				

Objective Question

39	2919		4.0	1.00

Match **List-I** with **List-II**

List-I	List-II
(A). Internal level	(I). Represents the overall logical structure of the entire database.
(B). Conceptual level	(II). Defines individual user views or schemas
(C). External level	(III). Hides the physical details of the database from users
(D). Data abstraction	(IV). Describes how data is physically stored in the database.

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

40	2920	Which of the following is NOT a bioinformatics database?	4.0	1.00
1. GenBank 2. UniProt 3. Sequin 4. PDB (Protein Data Bank)				
A1 : 1 A2 : 2 A3 : 3 A4 : 4				

Objective Question

41	2921		4.0	1.00
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The term "phylogenetic tree" is used in:

1. Genome assembly
2. Evolutionary biology
3. Protein structure prediction
4. Statistical genomics

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

42 2922

What is a common application of bioinformatics in personalized medicine?

1. Genome-wide association studies
2. Protein crystallization
3. Virus isolation
4. mRNA isolation

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

43 2923

The central dogma of molecular biology states that:

1. DNA is transcribed into RNA, which is translated into proteins
2. Proteins are transcribed into RNA, which is reverse-translated into DNA
3. DNA directly produces proteins in a cell
4. Only RNA is involved in gene expression

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

44 2924

4.0 1.00

In bioinformatics, the term "homology" refers to:

1. Two proteins with different functions
2. Similarity in DNA sequences due to convergent evolution
3. Evolutionarily related genes or proteins
4. Unrelated genetic sequences

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

45 2925

Which of the following is an example of a bioinformatics algorithm used for sequence alignment?

1. Smith-Waterman algorithm
2. PCR amplification
3. Southern blotting
4. Protein purification

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

46 2926

Computational biology involves the use of:

1. Microscopes for protein visualization
2. Computer algorithms to analyze biological data
3. Molecular cloning techniques
4. Gel electrophoresis for DNA separation

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

47 2927

4.0 1.00

Which one of the following is an example of primary database?

1. KEGG
2. EMBL
3. RefSeq
4. CATH

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

48 2928

4.0 1.00

Given below are two statements regarding substitution matrices:

Statement (I): The PAM substitution matrices were derived using local multiple alignments.

Statement (II): The BLOSUM matrices were derived using substitution frequencies derived from sets of closely related protein sequences.

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

1. Both Statement (I) and Statement (II) are correct.
2. Both Statement (I) and Statement (II) are incorrect.
3. Statement (I) is correct but Statement (II) is incorrect.
4. Statement (I) is incorrect but Statement (II) is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

49 2929

4.0 1.00

Consider the following terminologies used in phylogenetic analysis:

(A). The lines in a tree are called branches or edges.

(B). Internal branch is located between two nodes.

(C). Root is the common ancestor of all taxa.

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

1. Only (A) and (B) are true.
2. Only (A) and (C) are true.
3. Only (B) and (C) are true.
4. All (A), (B) and (C) are true.

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

50	2930	The number of possible unrooted trees for 5 operational taxonomic units is 3 15 105 954 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

51	2931	Given below are two statements regarding protein structure prediction methods: Statement (I): <i>Ab initio</i> method predicts protein structures based on sequence homology with known structures. Statement (II): Homology modeling, also known as comparative modeling attempts to produce all-atom protein models based on sequence information alone without the aid of known protein structures. In light of the above statements, choose the <i>most appropriate</i> answer from the options given below. - Both Statement (I) and Statement (II) are true. - Both Statement (I) and Statement (II) are false. - Statement (I) is true but Statement (II) is false. - Statement (I) is false but Statement (II) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

52	2932		4.0	1.00
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Match **List-I** with **List-II**

List-I	List-II
(A). Procheck	(I). Multiple sequence alignment program
(B). ClustalW	(II). Software to check the stereochemical quality of a protein structure
(C). Swiss-Model	(III). Molecular visualization software
(D). Cn3D	(IV). Automated, flexible docking program
(E). Affinity	(V). An automated comparative protein modeling server

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

- (A) - (II), (B) - (I), (C) - (V), (D) - (III), (E) - (IV)
- (A) - (III), (B) - (I), (C) - (V), (D) - (II), (E) - (IV)
- (A) - (III), (B) - (IV), (C) - (V), (D) - (II), (E) - (I)
- (A) - (II), (B) - (I), (C) - (IV), (D) - (III), (E) - (V)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

53 2933

4.0 1.00

Consider the following statements regarding various functions used in Perl:

- The splice() function is a general purpose function to add or remove array elements.
- The push() function may be used to append a list of items to the beginning of an array.
- The unshift() function prepends a list of items to the end of an array.

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

- Only (A) is true.
- Only (A) and (B) are true.
- Only (A) and (C) are true.
- Only (B) and (C) are true.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question				
54	2934	Which of the following is not a supervised learning method? 1. Support vector machine 2. K-means clustering 3. Decision tree 4. Linear regression A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
55	2935	In Artificial Intelligence, an environment is uncertain if it is 1. Not fully observable and not deterministic 2. Not fully observable or not deterministic 3. Fully observable but not deterministic 4. Not fully observable but deterministic A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
56	2936	Choose the one which is not an Ensemble Modeling Technique: 1. Bagging 2. Boosting 3. Blending 4. Stacking A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
57	2937	Software does not wear-out in the traditional sense of the term, but software does tend to deteriorate as it evolves, because: 1. Software suffers from exposure to hostile environments. 2. Defects are more likely to arise after software has been used often. 3. Multiple change requests introduce errors in component interactions. 4. Software spare parts become harder to order A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
58	2938	Which statement is correct about the Multiplexer? 1. Produces multiple output signals 2. Produces single output signal 3. Encodes the input signals 4. Decodes the input signals A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
59	2939	Which one of the following is a FIFO data structure 1. Stacks 2. Linked List 3. Queues 4. Graphs A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				

60	2940	Thomson Reuters was created by the Thomson Corporation's purchase of the -----company, Reuters Group. 1. German 2. Canadian 3. French 4. British A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

61	2941	Following is used for storing a single Bit in Computer : 1. Multiplexer 2. Encoder 3. Flip Flop 4. Decoder A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

62	2942	Which of the following is not an application software? 1. Windows 10 2. WordPad 3. Photoshop 4. MS-excel A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

63	2943		4.0	1.00
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The maximum number of processes that can be in ready state for a computer system with n CPUs is :

1. n
2. n^2
3. 2^n
4. Independent of n

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

64 2944

4.0 1.00

Consider the process given below:

Process	Arrival time	Service Time
P1	0.000	3
P2	1.001	6
P3	4.001	4
P4	6.001	2

What is the waiting time of process P3 using shortest job first (pre-emptive)?

1. 1
2. 3
3. 2
4. 0

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

65 2945

4.0 1.00

Which of the communication modes support two way traffic but only one direction at a time?

1. Simplex
2. Half Duplex
3. Three-quarter's duplex
4. Full duplex

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

66	2946	The loss in signal power as light travels down the fibre is called: 1. Attenuation 2. Propagation 3. Scattering 4. Interruption A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

67	2947	_____ of a set of n elements is an arrangement of the elements in a given order: 1. Combination 2. Permutation 3. Exponent 4. Logarithm A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

68	2948		4.0	1.00
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Which of the following are non linear type of data structure?

- (A).Tree
- (B).Graphs
- (C).Hash tables
- (D).List

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

1. (A), (B) and (C) only.
2. (B), (C) and (D) only.
3. (A), (C) and (D).
4. All (A), (B), (C) and (D).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

69 2949

Which of the following is a type of polymorphism in JAVA Programming?

1. Multiple Polymorphism
2. Compile Polymorphism
3. Multilevel Polymorphism
4. Execution time polymorphism

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

70 2950

Using which of the following keywords can an exception be generated?

1. Threw
2. Throws
3. Throw
4. Catch

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

71	1003651	In RDBMS, different classes of relations are created using technique to prevent modification anomalies. 1. Functional Dependencies 2. Data integrity 3. Referential integrity 4. Normal Forms A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

72	1003652	Let R1(a, b, c) and R2(x, y, z) be two relations in which a is the foreign key of R1 that refers to the primary key of R2. Consider the following four options. (a).Insert into R1 (b).Insert into R2 (c).Delete from R1 (d).Delete from R2 Which of the following is correct about the referential integrity constraint with respect to above? Choose the correct answer from the options given below: 1. Operations (a) and (b) will cause violation. 2. Operations (b) and (c) will cause violation. 3. Operations (c) and (d) will cause violation. 4. Operations (d) and (a) will cause violations. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
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Objective Question

73	1003653		4.0	1.00
----	---------	--	-----	------

Check the following statements:

- a. Data Communication manager is a part of DBMS,
- b. Data Communication manager is an autonomous system in its own right

Choose the correct option:

- 1. Only a is correct
- 2. Only b is correct
- 3. Both a and b are correct
- 4. Both a and b are not correct

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

74	1003654	The Conceptual View is the representation of: 1. entire information content of database 2. information required by individual users of database 3. information required at external level of database. 4. low level information of database A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	---	-----	------

Objective Question

75	1003655	The difference among various types of flip-flops is in the: (A). Number of inputs they possess. (B). Manner in which the inputs affect the binary state Choose the correct answer from the options given below: 1. Only (A) 2. Only (B) 3. Both (A) and (B) 4. Neither (A) nor (B) A1 : 1	4.0	1.00
----	---------	--	-----	------

A2 : 2

A3 : 3

A4 : 4

Objective Question

76	1003656	The transfer of new information into a register is referred to as -----the register. 1. Buffering 2. Charging 3. Decoding 4. Loading A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	--	-----	------

Objective Question

77	1003657	Let $m = (313)_4$ and $n = (322)_4$. Find the base 4 expansion of $m + n$. 1. $(635)_4$ 2. $(32312)_4$ 3. $(1301)_4$ 4. $(21323)_4$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	--	-----	------

Objective Question

78	1003658		4.0	1.00
----	---------	--	-----	------

Match **List-I** with **List-II**

List-I	List-II
(A). Isolated I/O	(I). same set of control signal for I/O and memory communication.
(B). Memory mapped I/O	(II). separate instructions for I/O and memory communication
(C). I/O interface	(III). requires control signals to be transmitted between the communicating units
(D). Asynchronous data transfer	(IV). resolve the differences in central computer and peripherals

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

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

A1 : 1

A2 : 2

A3 : 3

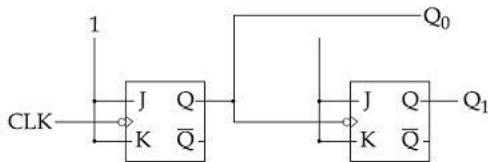
A4 : 4

Objective Question

79 1003659

4.0 1.00

What does the following logic diagram represent?



- 1. Synchronous Counter
- 2. Ripple Counter
- 3. Shift Register
- 4. Mod 2 Counter

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question				
80	1003660	In context of Lexical Analyzer, Sw represents: 1. Empty state 2. Initial State 3. Intermediate State 4. Final State A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
81	1003661	The lexical analysis of various modern computer languages like Java requires the power of which of these machine models in a sufficient and necessary sense? 1. Turing Machine 2. Pushdown Automata (Non-Deterministic) 3. Pushdown Automata (Deterministic) 4. Finite State Automata A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
82	1003662	Which of the following problems is undecidable? 1. To determine if two finite automata are equivalent 2. Membership problem for context free grammar 3. Finiteness problem for finite automata 4. Ambiguity problem for context free grammar A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
83	1003663	-----is a full-featured, Interactive Development Environment (IDE) created by Microsoft for the development of .NET applications. 1. ASP.NET 2. JAVA.NET 3. Visual Studio.NET 4. Web.NET A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
84	1003664	Hadoop Distributed File System is written in this language: 1. PHP 2. JAVA 3. C# 4. Python A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
85	1003665	Which one is not a feature of Thin clients: 1. They use server-based web applications 2. They don't support client-side features such as JavaScript 3. They don't support server-side features such as JavaScript 4. They communicate with web servers A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

86	1003666	This read-only property returns the name of the instance of the SQL Server database used by the SqlConnection object. 1. State 2. ConnectionString 3. Datasource 4. Database A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	---	-----	------

Objective Question

87	1003667	A programmer defines multiple -----, as a way to logically group identifiers based on their use. 1. HTML documents 2. XML documents 3. Namespaces 4. IDL documents A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	---	-----	------

Objective Question

88	1003668	----- is the probability that a program is operating according to requirements at a given point in time. 1. Software Quality 2. Software Reliability 3. Software Availability 4. Software Reengineering A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	--	-----	------

Objective Question				
89	1003669	Source code translation and Program modularization are the activities of _____. 1. Reverse Engineering 2. Forward Engineering 3. Reengineering and Reverse Engineering 4. Reengineering A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
90	1003670	In Software Configuration Management (SCM), which of the following is a use-case supported by standard version control systems? (A). Managing several versions or releases of a software (B). Filing bug reports and tracking their progress (C). Allowing team members to work in parallel (D). Identifying when and where a regression occurred Select the correct option: 1. Only (A), (C), and (D) 2. Only (A), (B), and (C) 3. Only (A), (B), and (D) 4. Only (B), (C), and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
91	1003671	Which of the following testing techniques ensures that the software product runs correctly after the changes during maintenance? 1. Path Testing 2. Integration Testing 3. Unit Testing 4. Regression Testing	4.0	1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

92 1003672

Which one of the following is not typically provided by Source Code Management Software?

1. Synchronisation
2. Versioning and Revision history
3. Syntax highlighting
4. Project forking

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00

Objective Question

93 1003673

Consider the following tables (relations):

Students

<u>Roll-No</u>	<u>Name</u>
18CS101	Ramesh
18CS102	Mukesh
18CS103	Ramesh

Performance

<u>Roll-No</u>	<u>Course</u>	<u>Marks</u>
18CS101	DBMS	60
18CS101	Compiler Design	65
18CS102	DBMS	80
18CS103	DBMS	85
18CS102	Compiler Design	75
18CS103	Operating System	70

Primary keys in the tables are shown using underline. Now, consider the following query:

SELECT S.Name, Sum (P.Marks) FROM Students S, Performance P WHERE

S.Roll-No = P.Roll-No GROUP BY S.Name

The number of rows returned by the above query is:

1. 0
2. 1
3. 2
4. 3

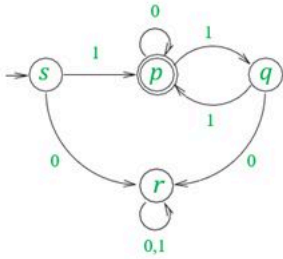
4.0 1.00

- A1 : 1
- A2 : 2
- A3 : 3
- A4 : 4

Objective Question

94	1003674	Consider the context-free grammar G below $S \rightarrow aSb \mid X$ $X \rightarrow aX \mid Xb \mid a \mid b,$ where S and X are non-terminals, and a and b are terminal symbols. The starting non-terminal is S. Which one of the following statements is CORRECT 1. The language generated by G is $(a + b)^*$ 2. The language generated by G is $a^*(a + b)b^*$ 3. The language generated by G is $a^*b^*(a + b)$ 4. The language generated by G is not a regular language A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	---	-----	------

Objective Question

95	1003675	Consider the Deterministic Finite-state Automata (DFA) as shown below. The DFA runs on the alphabet {0, 1}, and has the set of states {s, p, q, r}, with s being the start state and p being the only final state.  Which one of the following regular expressions correctly describes the language accepted by A? 1. $1(0^*11)^*$ 2. $0(0+ 1)^*$ 3. $1(0 + 11)^*$ 4. $1(110^*)^*$	4.0	1.00
----	---------	---	-----	------

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

96	1003676	There has been a rumour that when IBM shut down the IBM 7094 at MIT in 1973, they found a low-priority process that had been submitted in 1967 and had not yet been run. The reason behind this problem is due to: 1. Process Scheduling 2. Round-Robin Scheduling 3. Priority Scheduling 4. Multi-level feedback Queue Scheduling A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	--	-----	------

Objective Question

97	1003677	Which one of the following is not true? 1. kernel remains in the memory during the entire computer session 2. kernel is made of various modules which can not be loaded in running operating system 3. kernel is the first part of the operating system to load into memory during booting 4. kernel is the program that constitutes the central core of the operating system A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	---	-----	------

Objective Question

98	1003678	Which one of the following errors will not be handled by the operating system? 1. lack of paper in printer 2. connection failure in the network 3. power failure 4. Virus protection	4.0	1.00
----	---------	--	-----	------

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

99	1003679	Which one of the following is not a real time operating system? 1. Windows CE 2. RTLinux 3. VxWorks 4. Palm os A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
----	---------	---	-----	------

Objective Question

100	1003680	What is bootstrapping called? 1. Cold boot 2. Cold hot boot 3. Cold hot strap 4. Hot boot A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
-----	---------	--	-----	------

Objective Question

101	1003681	Which is the port number of PoP? 1. 35 2. 43 3. 110 4. 25	4.0	1.00
-----	---------	--	-----	------

		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		
Objective Question				
102	1003682	Identify the major difference between SNMPv3 and SNMPv2. 1. Classification 2. Integration 3. Management 4. Enhanced Security A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
103	1003683	Why are parity bits used? 1. To encrypt data 2. To detect error 3. To identify 4. To decode data A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
104	1003684	Identify among the following addresses which belongs to class A networks 1. 121.12.12.248 2. 128.12.12.248 3. 129.12.12.248 4. 130.12.12.248 A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

105	1003685	Calculate the maximum efficiency of pure ALOHA at $G = 0.5$. 1. 16% 2. 1.89% 3. 18.4% 4. 18.999% A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
-----	---------	--	-----	------

Objective Question

106	1003686	In the worst case, the number of comparisons needed to search a singly linked list of length n for a given element is: 1. $\log(2*n)$ 2. $n/2$ 3. $\log(2*n) - 1$ 4. n A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
-----	---------	--	-----	------

Objective Question

107	1003687		4.0	1.00
-----	---------	--	-----	------

Match the following components of data structure (List-I) based on the concept of Abstract Data Type (ADT) (List-II) with their definitions.

List-I	List-II
(A). Operations	(I). Organizations of data implemented in lower level data structure.
(B). Storage structures	(II). Description on how to manipulate information in the storage structure.
(C). Algorithms	(III). Specifies the external appearance of data structure

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

108	1003688	Suppose a circular queue of capacity $(n - 1)$ elements is implemented with an array of n elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are: 1. Full: $(\text{REAR} + 1) \bmod n == \text{FRONT}$, empty: $\text{REAR} == \text{FRONT}$ 2. Full: $(\text{REAR} + 1) \bmod n == \text{FRONT}$, empty: $(\text{FRONT} + 1) \bmod n == \text{REAR}$ 3. Full: $\text{REAR} == \text{FRONT}$, empty: $(\text{REAR} + 1) \bmod n == \text{FRONT}$ 4. Full: $(\text{FRONT} + 1) \bmod n == \text{REAR}$, empty: $\text{REAR} == \text{FRONT}$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
-----	---------	---	-----	------

Objective Question

109	1003689		4.0	1.00
-----	---------	--	-----	------

A Structure is of the form:

If condition, then:

[Module A]

Else:

[Module B]

[End of if structures]

What is this structure?

1. Multiple Alternative
2. Double Alternative
3. Single Alternative
4. None of the above is the answer.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

110 1003690

The _____ notation is used when the function $g(n)$ defines a lower bound for the function $f(n)$.

1. Omega
2. Big O
3. Theta
4. Little Oh

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

1.00

Objective Question

111 1003691

Which one of the following is not a Java feature?

1. Object-oriented
2. Use of pointers
3. Portable
4. Dynamic and Extensible

A1 : 1

4.0

1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

112 1003692

4.0

1.00

What will be the output of the following JAVA Code?

```
Class increment {
```

```
    public static void main(String args[])
```

```
    {
```

```
        int g = 3;
```

```
        System.out.print(++g * 8);
```

```
    }
```

```
}
```

1. 32

2. 33

3. 24

4. 25

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

113 1003693

4.0

1.00

Which keyword is used to define the macros in C++?

1. #macro

2. #define

3. macro

4. define

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

114 1003694

4.0

1.00

What is the value of p in the following C++ code snippet?

```
#include
using namespace std;
int main()
{
    int p;
    bool a = true;
    bool b = false;
    int x = 10;
    int y = 5;
    p = ((x | y) + (a + b));
    cout << p;
    return 0;
}
```

- 1. 12
- 2. 0
- 3. 2
- 4. 16

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

115	1003695	Identify the correct range of signed char.	4.0	1.00
1. -256 to 255 2. -128 to 127 3. 0 to 255 4. 0 to 127				
A1 : 1 A2 : 2 A3 : 3 A4 : 4				

Objective Question				
116	1003696	To remove two source of heterogeneity in the experimental units we may use 1. CRD or RBD 2. CRD only 3. RBD only 4. LSD only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
117	1003697	Which one of the following statements is correct? 1. Sampling and non-sampling errors are present both in sample surveys and census. 2. Non-sampling errors are present both in sample surveys and census. 3. Non-sampling errors are present in census only. 4. Non-sampling errors are present in sample surveys only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
118	1003698	If for a binomial distribution mean is 7 and variance is 6, then the probability of success 'p' is equal to 1. 1/49 2. 1/42 3. 1/7 4. 6/7 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
119	1003699		4.0	1.00

A company engaged in the manufacture of talcum powder of various varieties has found a new perfume for the talcum powder. It wants to bring out the new perfumed powder to the market in only one size. It has data on sales of various sizes of its existing product. Based on which measure of central tendency would the company decide on the size of the new product to be marketed?

1. Mean
2. Median
3. Mode
4. Weighted arithmetic mean

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

120 1003700

A coin is tossed n times. If X and Y denote the number of heads and number of tails turned up respectively, then the correlation between X and Y is

1. 0
2. 0.5
3. +1
4. -1

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 1.00