

National Employability Assessment Test and Industry Readiness Program

for Diploma Engineers and Professionals | Winter – 2022

Discipline: Computer Engineering

Computer Based PAN India Examination held on 18.03.2023

Questions & Answers

(Published dtd. 29.03.2023)

PAPER STRUCTURE

Question Nos.	Sections & Topics		Marks
1 to 40	Section I : General Aptitude	<ul style="list-style-type: none">Quantitative AptitudeLogical ReasoningData InterpretationEnglish Communication	40
41 to 60	Section II : Basic Concepts	<ul style="list-style-type: none">General PhysicsGeneral ChemistryMechanicsEngineering Drawing	20
61 to 100	Section III : Technical Aptitude	<ul style="list-style-type: none">Computer Engineering	40
TOTAL			100

NOTE:

- Exam Duration: 3 Hours
- Total 100 no. of Questions of 1 Mark each with Negative Marking of ¼ Mark for every wrong answer
- Questions (Section wise) and respective Answer Options shuffled at Candidates' terminal

Question No. 1	In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs?			
Answer Options	A)	B)	C)	D)
	7	6.75	6.25	6.5
Right Option	C			

Question No. 2	Today is Monday. After 61 days, it will be:			
Answer Options	A)	B)	C)	D)
	Thursday	Saturday	Tuesday	Wednesday
Right Option	B			

Question No. 3	3 pumps working 8 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day?			
Answer Options	A)	B)	C)	D)
	9	10	12	11
Right Option	C			

Question No. 4	A man standing at a point P is watching the top of a tower, which makes an angle of elevation of 30° with the man's eye. The man walks some distance towards the tower to watch its top and the angle of the elevation becomes 60° . What is the distance between the base of the tower and the point P?			
Answer Options	A)	B)	C)	D)
	Data inadequate	8 units	12 units	43 units
Right Option	A			

Question No. 5	Find the largest 4-digit number, which gives the remainder 7 and 13 when divided by 11 and 17?			
Answer Options	A)	B)	C)	D)
	9900	9907	9807	None of these
Right Option	B			

Question No. 6	In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?			
Answer Options	A)	B)	C)	D)
	30%	100%	250%	70%
Right Option	D			

Question No. 7	A candidate who gets 20% marks fails by 10 marks but another candidate who gets 42% marks gets 12% more than the passing marks. Find the maximum marks.			
Answer Options	A)	B)	C)	D)
	75	68	37	100
Right Option	D			

Question No. 8	A sum of Rs. 12,500 amounts to Rs. 15,500 in 4 years at the rate of simple interest. What is the rate of interest?			
Answer Options	A)	B)	C)	D)
	6%	4%	5%	3%
Right Option	A			

Question No. 9	A train travelling at 48 kmph completely crosses another train having half its length and travelling in opposite direction at 42 kmph, in 12 seconds. It also passes a railway platform in 45 seconds. The length of the platform is			
Answer Options	A)	B)	C)	D)
	560 m	450 m	400 m	600 m
Right Option	C			

Question No. 10	In a shower, 5 cm of rain falls. The volume of water that falls on 1.5 hectares of ground is:			
Answer Options	A)	B)	C)	D)
	750 cu. m	75 cu. m	75000 cu. m	7500 cu. m
Right Option	A			

Question No. 11	A good way to figure out the relationship in a given question is to make up a sentence that describes the relationship between the first two words. Then, try to use the same sentence to find out which of the answer choices completes the same relationship with the third word. Cup is to coffee as bowl is to			
Answer Options	A)	B)	C)	D)
	Food	Spoon	Soup	Dish
Right Option	C			

Question No. 12	A student got twice as many sums wrong as he got right. If he attempted 48 sums in all, how many did he solve correctly?			
Answer Options	A)	B)	C)	D)
	12	16	18	24
Right Option	B			

Question No. 13	Choose the statement that is best supported by the information given in the question passage. In the 1966 Supreme Court decision <i>Miranda v. Arizona</i> , the court held that before the police can obtain statements from a person subjected to an interrogation, the person must be given a Miranda warning. This warning means that a person must be told that he or she has the right to remain silent during the police interrogation. Violation of this right means that any statement that the person makes is not admissible in a court hearing. This paragraph best supports the statement that			
Answer Options	A)	B)	C)	D)
	The police may no longer interrogate persons suspected of a crime unless a lawyer is present.	A Miranda warning must be given before a police interrogation can begin.	Police who do not warn persons of their Miranda rights are guilty of a crime.	The 1966 Supreme Court decision in <i>Miranda</i> should be reversed
Right Option	B			

Question No. 14	Here are some words translated from an artificial language. godabim means kidney stones romzbim means kidney beans romzbako means wax beans Which word could mean "wax statue"?			
Answer Options	A)	B)	C)	D)
	Godaromz	Lazbim	Romzpeo	Wasibako
Right Option	D			

Question No. 15	If A is the brother of B; B is the sister of C; and C is the father of D, how D is related to A?			
Answer Options	A)	B)	C)	D)
	Sister	Nephew	Cannot be determined	Brother
Right Option	C			

Question No. 16	Choose the word which is different from the rest.			
Answer Options	A)	B)	C)	D)
	Mandible	Sternum	Ulna	Pinna
Right Option	D			

Question No. 17	<p>In each question below is given a statement followed by three courses of action numbered I, II and III. You have to assume everything in the statement to be true, then decide which of the three given suggested courses of action logically follows for pursuing.</p> <p>Statement: Besides looks and appearances, it is also important to develop oneself from within.</p> <p>Courses of Action:</p> <p>I. One should not pay attention to fashion. II. One should pay attention to fashion. III. Books on self-development should be encouraged.</p>			
Answer Options	A)	B)	C)	D)
	Only II follows	Only III follows	Only I and III follow	Only I follows
Right Option	B			

Question No. 18	Arrange the words given below in a meaningful sequence. 1. Index 2. Contents 3. Title 4. Chapters 5. Introduction			
Answer Options	A)	B)	C)	D)
	3, 2, 5, 1, 4	3, 2, 5, 4, 1	2, 3, 4, 5, 1	5, 1, 4, 2, 3
Right Option	B			

Question No. 19	3, 10, 101, ?			
Answer Options	A)	B)	C)	D)
	10202	10201	10101	11012
Right Option	A			

Question No. 20	A disease always has			
Answer Options	A)	B)	C)	D)
	Cause	Cure	Patient	Germ
Right Option	A			

Question No. 21	<p>Question nos. 21 to 25:</p> <p>Splash.Inc produces fabric sold in rolls of 35 metres (units) for the wholesale textile market. The production manager at Splash.Inc has produced the following table to illustrate how the unit cost of their bestselling product falls as production increases. Total costs are derived by adding fixed costs and variable costs; the fixed costs used in the calculations total \$3m.</p> <table border="1" data-bbox="329 1409 920 1665"> <thead> <tr> <th>Scenario</th> <th>Total cost \$</th> <th>Unit cost \$</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>\$4,500,000</td> <td>\$18.00</td> </tr> <tr> <td>B</td> <td>\$5,400,000</td> <td>\$17.46</td> </tr> <tr> <td>C</td> <td>\$6,477,000</td> <td>\$16.94</td> </tr> <tr> <td>D</td> <td>\$7,776,000</td> <td>\$16.43</td> </tr> </tbody> </table> <p>How much are the variable costs in scenario B?</p>				Scenario	Total cost \$	Unit cost \$	A	\$4,500,000	\$18.00	B	\$5,400,000	\$17.46	C	\$6,477,000	\$16.94	D	\$7,776,000	\$16.43
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D	\$7,776,000	\$16.43																	
Answer Options	A)	B)	C)	D)															
	\$2,400,000	\$1,500,000	\$750,000	Cannot tell															
Right Option	A																		

Question No. 22	How many units are produced in scenario A?			
Answer Options	A)	B)	C)	D)
	2,500,000	250,000	1,250,000	225,000
Right Option	B			

Question No. 23	How many more units are produced in scenario C compared to scenario A?			
Answer Options	A)	B)	C)	D)
	131,000	132,349	139,274	136,998
Right Option	B			

Question No. 24	By what percentage did the total unit cost in scenario A increase in order to realize the unit cost reduction between scenarios A and B?			
Answer Options	A)	B)	C)	D)
	117%	120%	121%	119%
Right Option	B			

Question No. 25	Which suggested answer would provide the best estimate of the unit cost if variable costs were \$750,000?			
Answer Options	A)	B)	C)	D)
	$\$18 \times 97\% = \text{new unit price}$	$\text{New unit cost} \times 97\% = \18	$\$28 \times 103\% = \text{new unit price}$	$\text{New unit cost} \times 103\% = \18
Right Option	B			

Question No. 26	Question nos. 26 to 30: This following table is related to profit and loss and some values are missing. All the discounts are on the M.P. and the profit are on C.P.																																								
	<table border="1"> <thead> <tr> <th>Article</th> <th>Cost Price (Rs.)</th> <th>Profit (%)</th> <th>Marked Price (Rs.)</th> <th>Discount (%)</th> <th>Selling Price (Rs.)</th> </tr> </thead> <tbody> <tr> <td>Jeans</td> <td>2280</td> <td>---</td> <td>2720</td> <td>---</td> <td>---</td> </tr> <tr> <td>Shirt</td> <td>---</td> <td>30%</td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>T-shirt</td> <td>---</td> <td>---</td> <td>2875</td> <td>14%</td> <td>---</td> </tr> <tr> <td>Suit</td> <td>2200</td> <td>---</td> <td>---</td> <td>---</td> <td>2640</td> </tr> <tr> <td>Saree</td> <td>---</td> <td>20%</td> <td>3800</td> <td>---</td> <td>---</td> </tr> </tbody> </table>					Article	Cost Price (Rs.)	Profit (%)	Marked Price (Rs.)	Discount (%)	Selling Price (Rs.)	Jeans	2280	---	2720	---	---	Shirt	---	30%	---	---	---	T-shirt	---	---	2875	14%	---	Suit	2200	---	---	---	2640	Saree	---	20%	3800	---	---
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	If the discount % and profit % of the Suit is same. Find out the M.P. of Suit?																																								
Answer Options	A)	B)	C)	D)																																					
	Rs. 2800	Rs. 2200	Rs. 3300	Rs. 2500																																					
Right Option	C																																								

Question No. 27	If the M.P. of jeans is Rs. 140 more than the C.P. of Shirt and the difference between M.P. and S.P. of Shirt is Rs. 780. Find the discount % of Shirt?			
Answer Options	A)	B)	C)	D)
	17.56%	18.86%	19.76%	20.46%
Right Option	B			

Question No. 28	C.P. of Suit is how much percentage less than the M.P. of Jeans?			
Answer Options	A)	B)	C)	D)
	19.10%	18.60%	21.20%	18.40%
Right Option	A			

Question No. 29	The ratio of discount % and profit % of the T-shirt is 7:5. Find CP. of T-shirt? (approximately)			
Answer Options	A)	B)	C)	D)
	Rs. 2552	Rs. 2248	Rs. 2398	Rs. 2285
Right Option	B			

Question No. 30	If the ratio of the C.P. of the Jeans and Saree is 4:5, find out the discount % of Saree?			
Answer Options	A)	B)	C)	D)
	15%	10%	12%	20%
Right Option	B			

Question No. 31	<p>Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order.</p> <p>A: Only natural dyes are used in Kalamkari and it involves several steps. B: There are two distinctive styles of Kalamkari in India. C: They are the Sri kalahasti style and the Machlipatnam style. D: Kalamkari is a type of hand-painted or block-printed cotton textile, produced in the Indian States of Andhra Pradesh and Telangana.</p>			
Answer Options	A)	B)	C)	D)
	DCBA	CBDA	ACBD	DABC
Right Option	D			

Question No. 32	What is the antonym of MOROSE			
Answer Options	A)	B)	C)	D)
	Overawed	Cherubic	Cheerful	Agitated
Right Option	C			

Question No. 33	What is the synonym of ERRONEOUS			
Answer Options	A)	B)	C)	D)
	Erased	Wrong	Weak	Enormous
Right Option	B			

Question No. 34	A frustrated old man, Bandi Thakur was never tired of (1)_____ the exploits of his ancestors, with a little (2) _____ he would lapse into a reminiscent mood, push back the loosely tied turban from his close-cropped grizzled hair and start a familiar story, improvising (3)_____ details which, to the mirth of his audience, always kept changing with every recounting.			
Answer Options	A)	B)	C)	D)
	(1) extolling, (2) advising, (3) rational	(1) extolling, (2) prompting, (3) fanciful	(1) criticizing, (2) prompting, (3) sincere	(1) invoking, (2) arguing, (3) fanciful
Right Option	B			

Question No. 35	Even my goalies and the policemen, who have arrested me or (1) _____ me as a prisoner from place to place have been kind to me, and much of the (2) _____ of conflict and the sting of goal-life has been (3) _____ because of this human touch.			
Answer Options	A)	B)	C)	D)
	(1) escorted, (2) affinity, (3) toned down	(1) abandoned, (2) bitterness, (3) pumped up	(1) safeguarded, (2) kindness, (3) egged on	(1) escorted, (2) bitterness, (3) toned down
Right Option	D			

Question No. 36	Attracted by the serenity of the evening, a friend and I lately went to one of the public walks near the city. Here we (1) _____ together for some time. Then my friend, stopping suddenly, (2) _____ by the elbow, and led me out of the public walk. I could perceive by the quickness of this (3) _____, and by his frequently looking behind, that he was attempting to avoid somebody who followed.			
Answer Options	A)	B)	C)	D)
	(1) sauntered, (2) trapped, (3) pace	(1) vamoosed, (2) relinquished, (3) hands	(1) sauntered, (2) caught, (3) gallop	(1) dance, (2) caught, (3) gallop
Right Option	C			

Question No. 37	It was not surprising that my own countrymen should treat me so, for I had gained a (1) _____ of notoriety and popularity among them. Even for Englishmen I was individual and not merely one of the (2) _____ and, I imagine the fact that I had received my education in England, brought me (3) _____			
Answer Options	A)	B)	C)	D)
	(1) measure, (2) dispersal, (3) at a remote position	(1) weight, (2) collection, (3) in juxtaposition with them	(1) ration, (2) mass, (3) nearer to them	(1) measure, (2) mass, (3) nearer to them
Right Option	D			

Question No. 38	Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order. A: A man on a bike had to ride on the pavement. B: When he tried to plunge onto the road, a car hit him. C: As the bus inched through the evening life, the traffic grew. D: There was no space on the road any more.			
Answer Options	A)	B)	C)	D)
	CDAB	CBAD	ADBC	DBCA
Right Option	A			

Question No. 39	Select the Antonym of OFFHAND			
Answer Options	A)	B)	C)	D)
	Appropriate	Premeditated	Universal	Accurate
Right Option	B			

Question No. 40	What is the synonym of SEIZE			
Answer Options	A)	B)	C)	D)
	Grasp	Length	Start	Release
Right Option	A			

Question No. 41	A pond of clear water appears less deep than it really is. This is due to			
Answer Options	A)	B)	C)	D)
	Dispersion	Refraction	The transparency of water	Reflection
Right Option	B			

Question No. 42	Friction can be reduced by changing from			
Answer Options	A)	B)	C)	D)
	Potential energy to kinetic energy	Sliding to rolling	Dynamic to static	Rolling to sliding
Right Option	B			

Question No. 43	Identify the vector quantity from the following			
Answer Options	A)	B)	C)	D)
	Angular momentum	Heat	Time	Work
Right Option	A			

Question No. 44	Intensity of sound at a point is _____ its distance from the source.			
Answer Options	A)	B)	C)	D)
	Directly proportional to square of	Inversely proportional to	Directly proportional to	Inversely proportional to square of
Right Option	D			

Question No. 45	Mercury is commonly used as a thermometric fluid rather than water because			
Answer Options	A)	B)	C)	D)
	Specific heat of mercury is more than water	Density of mercury is more than the water	Mercury has greater visibility than water	Specific heat of mercury is less than water
Right Option	C			

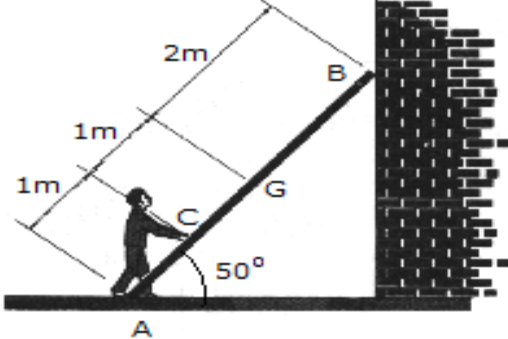
Question No. 46	Lime is sometimes applied to soil in order to			
Answer Options	A)	B)	C)	D)
	Make the soil more porous	Increase the alkalinity of the soil	Restore nitrates to the soil	Increase the acidity of the soil
Right Option	B			

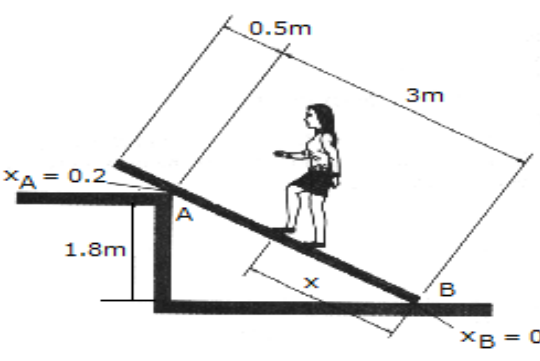
Question No. 47	Photo-oxidation is			
Answer Options	A)	B)	C)	D)
	Photo respiration	Photolysis	Light and oxygen induced breakdown	All of the above
Right Option	D			

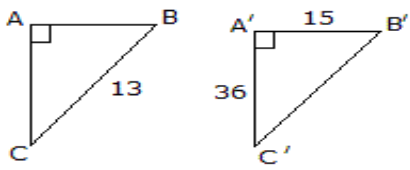
Question No. 48	The exhaled air contains			
Answer Options	A)	B)	C)	D)
	Carbon dioxide only	A mixture of carbon dioxide and nitrogen	A mixture which has more carbon dioxide than oxygen	A mixture of carbon dioxide, nitrogen and oxygen in which nitrogen has the highest percentage
Right Option	D			

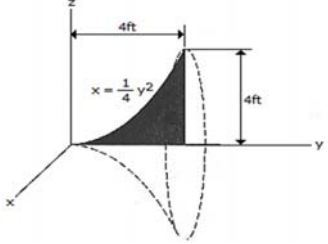
Question No. 49	The ionization energy of hydrogen atom in the ground state is x KJ. The energy required for an electron to jump from 2nd orbit to 3rd orbit is			
Answer Options	A)	B)	C)	D)
	$5x$	$7.2x$	$x/6$	$5x/36$
Right Option	D			

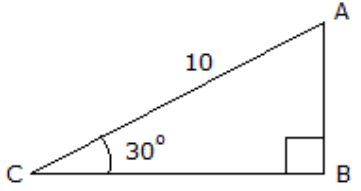
Question No. 50	The oldest rocks in the earth's crust were once molten, and came from deep inside the earth. The molten rock, called magma, spewed out in volcanic eruptions during the earth's early life and solidified into hard rock's called			
Answer Options	A)	B)	C)	D)
	Sedimentary rocks	Basalt	Granite	Igneous rocks
Right Option	D			

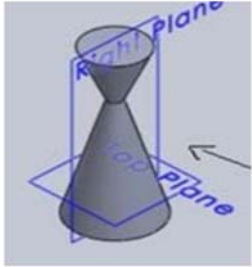
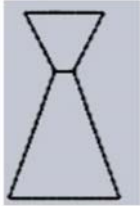
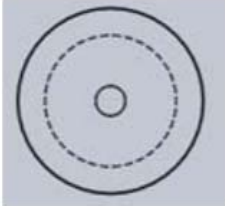
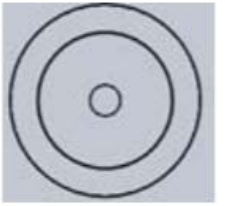
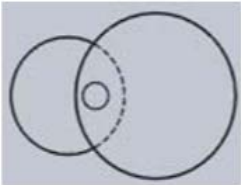
<p>Question No. 51</p>	 <p>A 17-kg ladder has a center of mass at G. If the coefficients of friction at A and B are $\mu_A = 0.3$ and $\mu_B = 0.2$, respectively, determine the smallest horizontal force that the man must exert of the ladder at point C in order to push the ladder forward.</p>			
<p>Answer Options</p>	<p>A) $F = 204 \text{ N}$</p>	<p>B) $F = 166.8 \text{ N}$</p>	<p>C) $F = 120.2 \text{ N}$</p>	<p>D) $F = 288 \text{ N}$</p>
<p>Right Option</p>	<p>A</p>			

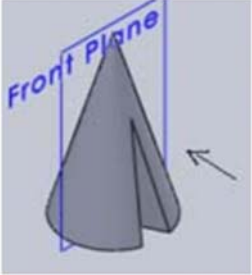

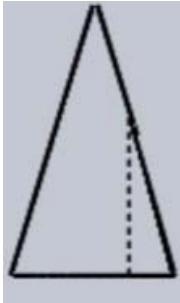
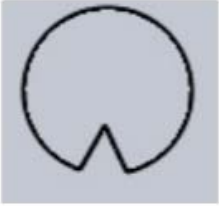
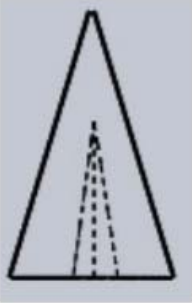
<p>Question No. 52</p>	 <p>A uniform beam has a mass of 18 kg and rests on two surfaces at points A and B. Determine the maximum distance x to which the girl can slowly walk up the beam before it begins to slip. The girl has a mass of 50 kg and walks up the beam with a constant velocity.</p>			
<p>Answer Options</p>	<p>A) $x = 0.678 \text{ m}$</p>	<p>B) $x = 0.712 \text{ m}$</p>	<p>C) $x = 0.508 \text{ m}$</p>	<p>D) $x = 1.005 \text{ m}$</p>
<p>Right Option</p>	<p>D</p>			

Question No. 53	 <p>Determine the length of side AB if the angle ABC is similar to the angle A'B'C':</p>			
Answer Options	A)	B)	C)	D)
	AB = 4	AB = 5	AB = 5.42	AB = 3
Right Option	B			

Question No. 54	 <p>Locate the center of gravity of the homogeneous "bell-shaped" volume formed by revolving the shaded area about the y axis.</p>			
Answer Options	A)	B)	C)	D)
	$\bar{y} = 3.33$ ft	$\bar{y} = 2.80$ ft	$\bar{y} = 3.20$ ft	$\bar{y} = 3.00$ ft
Right Option	A			

Question No. 55	 <p>Using the basic trigonomic functions, determine the length of side AB of the right triangle.</p>			
Answer Options	A)	B)	C)	D)
	h = 8.66	h = 11.55	h = 5.77	h = 5
Right Option	D			

<p>Question No. 56</p>	<p>Identify the top view for the below-given cone.</p> 			
<p>Answer Options</p>	<p>A)</p> 	<p>B)</p> 	<p>C)</p> 	<p>D)</p> 
<p>Right Option</p>	<p>C</p>			

<p>Question No. 57</p>	<p>Identify the front view of the following cone.</p> 			
<p>Answer Options</p>	<p>A)</p> 	<p>B)</p> 	<p>C)</p> 	<p>D)</p> 
<p>Right Option</p>	<p>A</p>			

Question No. 58	Curve of any shape can be drawn in perspective by enclosing it in a _____			
Answer Options	A)	B)	C)	D)
	Rectangle	Square	Cube	Cylinder
Right Option	A			

Question No. 59	A prism and cone got intersected at 90 degrees the line of intersection will be _____ and parallel to axis of _____			
Answer Options	A)	B)	C)	D)
	curve, cone	curve, prism	straight line, prism	straight line, cone
Right Option	B			

Question No. 60	The plane surfaces intersect in a _____ the line of intersection between two curved surfaces is _____ and between a plane surface and curved surfaces is a _____			
Answer Options	A)	B)	C)	D)
	curve, curve, curve	straight line, curve, straight line	straight line, curve, curve	straight line, straight line, curve
Right Option	C			

Question No. 61	8085 microprocessor has hardware interrupts.			
Answer Options	A)	B)	C)	D)
	4	3	2	5
Right Answer	C			

Question No. 62	A binary 3-bit down counter uses J-K flip-flops, FF _i with inputs J _i , K _i and outputs Q _i , i=0,1,2 respectively. The minimized expression for the input from following, is I. J ₀ =K ₀ =0 II. J ₀ =K ₀ =1 III. J ₁ =K ₁ =Q ₀ IV. J ₁ =K ₁ =Q' ₀ V. J ₂ =K ₂ =Q ₁ Q ₀ VI. J ₂ =K ₂ =Q' ₁ Q' ₀			
Answer Options	A)	B)	C)	D)
	II, IV, VI	II, III, V	I, III, V	I, IV, VI
Right Answer	A			

Question No. 63	A half-adder is also known as:			
Answer Options	A)	B)	C)	D)
	NOR Circuit	NAND Circuit	AND Circuit	EX-OR Circuit
Right Answer	C			

Question No. 64	A hardware interface that allows for the connection of several peripheral devices to a single PCI board			
Answer Options	A)	B)	C)	D)
	PCI	SCSI	ATA	SATA
Right Answer	B			

Question No. 65	A multiplexer is a logic circuit that			
Answer Options	A)	B)	C)	D)
	Accepts many inputs and gives many output	Accepts one input and gives several output	Accepts one input and gives one output	Accepts many inputs and gives one output
Right Answer	D			

Question No. 66	A ripple counter is a (n):			
Answer Options	A)	B)	C)	D)
	Synchronous Counter	Asynchronous counter	Parallel counter	None of the above
Right Answer	A			

Question No. 67	Among the logic families RTL, TTL, ECL and CMOS, the fastest family is:			
Answer Options	A)	B)	C)	D)
	CMOS	RTL	ECL	TTL
Right Answer	C			

Question No. 68	CPU does not perform the operation			
Answer Options	A)	B)	C)	D)
	Data transfer	Logic operation	Arithmetic operation	All of the above
Right Answer	A			

Question No. 69	Pipelining improves performance by:			
Answer Options	A)	B)	C)	D)
	Eliminating data hazards	Exploiting instruction level parallelism	Decreasing instruction latency	Decreasing the cache miss rate
Right Answer	C			

Question No. 70	Suppose a processor does not have any stack pointer registers, which of the following statements is true?			
Answer Options	A)	B)	C)	D)
	All subroutine calls and interrupts are possible	Interrupts are not possible	It cannot have nested subroutine calls	It cannot have subroutine call instruction
Right Answer	D			

Question No. 71	The characteristic equation of the D flip-flop is:			
Answer Options	A)	B)	C)	D)
	$Q = 1$	$Q_{n+1} = D$	$Q = D$	$Q = 0$
Right Answer	B			

Question No. 72	<p>Abstraction and encapsulation are fundamental principles that underlie the object-oriented approach to software development. What can you say about the following two statements?</p> <p>I. Abstraction allows us to focus on what something does without considering the complexities of how it works.</p> <p>II. Encapsulation allows us to consider complex ideas while ignoring irrelevant detail that would confuse us.</p>			
Answer Options	A)	B)	C)	D)
	Neither I nor II is correct	Both I and II are correct	Only II is correct	Only I is correct
Right Answer	A			

Question No. 73	Application of data structure in queue is:			
Answer Options	A)	B)	C)	D)
	Implementation of priority queues	Depth first search in a graph	Function call implementation	Level wise printing of tree
Right Answer	D			

Question No. 74	Binary search algorithm employs the strategy of			
Answer Options	A)	B)	C)	D)
	Greedy Strategy	Branch & Bound technique	Divide and Conquer technique	Dynamic Programming
Right Answer	C			

Question No. 75	Consider the following statements: S1: A queue can be implemented using two stacks. S2: A stack can be implemented using two queues. Which of the following is correct?			
Answer Options	A)	B)	C)	D)
	S1 is correct and S2 is not correct	S1 is not correct and S2 is correct	Both S1 and S2 are not correct	Both S1 and S2 are correct
Right Answer	A			

Question No. 76	Encapsulation is			
Answer Options	A)	B)	C)	D)
	Dynamic binding	Creating new class	A mechanism to associate the code and data	Data abstraction
Right Answer	A			

Question No. 77	For your ATM debit card, you have a 4-decimal-digit personal secret code. In the absence of any clue, a brute-force attack takes time-'t' to crack the code on an ATM terminal. Therefore 't' is the secure-time for a customer to report in case the card is misplaced. Your Bank has decided to facilitate an increased secure-time. Out of the following, which option should provide the largest rise in the value of 't'?			
Answer Options	A)	B)	C)	D)
	Instead of 4-decimal-digits, maintain the personal secret code in 4-hexadecimal-digits.	Instead of 4-decimal digits, maintain a 5-decimal-digit personal secret code.	Reduce the processing speed of the ATM terminals to the half of their current speed.	None of the above provides any improvement.
Right Answer	A			

Question No. 78	Given a parallel algorithm A with computation time t , if parallel algorithm A performs m computational operation, then p processors can execute algorithm A in time given by:			
Answer Options	A)	B)	C)	D)
	t/p	mt/p	$t+(m-t)/p$	$(m-t)/p$
Right Answer	A			

Question No. 79	How many PUSH and POP operations will be needed to evaluate the following expression by reverse polish notation in a stack machine $(A*B)+(C*D/E)$?			
Answer Options	A)	B)	C)	D)
	4 PUSH and 3 POP instructions	5 PUSH and 3 POP instructions	5 PUSH and 4 POP instructions	6 PUSH and 2 POP instructions
Right Answer	A			

Question No. 80	If we have six stack operations pushing and popping each of A, B and C-such that push (A) must occur before push (B) which must occur before push (C), then A, C, B is a possible order for the pop operations, since this could be our sequence: push (A), pop (A), push (B), push (C), pop (C), pop (B). Which one of the following orders could not be the order the pop operations are run, if we are to satisfy the requirements described above?			
Answer Options	A)	B)	C)	D)
	ABC	CBA	CAB	BAC
Right Answer	A			

Question No. 81	In the balanced binary tree given below, how many nodes will become unbalanced when a node is inserted as a child of the node 'g'. balanced binary tree			
Answer Options	A)	B)	C)	D)
	8	7	3	1
Right Answer	D			
NOTE	Question was incorrectly displayed at candidates' terminals. Hence '1' mark has been graded to all candidates, who attempted or not.			

Question No. 82	T is a graph with n vertices. T is connected and has exactly n-1 edges, then:			
Answer Options	A)	B)	C)	D)
	T is a tree	T contains no cycles	Every pairs of vertices in T is connected by exactly one path	All of these
Right Answer	A			

Question No. 83	The algorithm that will efficiently sort an array that is nearly sorted except for the interchange of some adjacent pairs of numbers like: {1, 3, 2, 5, 4, 6} is:			
Answer Options	A)	B)	C)	D)
	Selection sort	Bubble sort	Quick sort	Merge sort
Right Answer	C			

Question No. 84	<pre>#include<stdio.h> int main() { int i = 3; printf("%d", (++i)++); return 0; }</pre> <p>What is the output of the above program?</p>			
Answer Options	A)	B)	C)	D)
	4	Compile-time error	5	3
Right Answer	B			

Question No. 85	C supports?			
Answer Options	A)	B)	C)	D)
	Low level Files	High level Files	Both A and B	Executable Files only
Right Answer	C			

Question No. 86	<pre>#include<stdio.h> int main() { int i = 5, j = 10, k = 15; printf("%d ", sizeof(k /= i + j)); printf("%d", k); return 0; }</pre> <p>Assume size of an integer as 4 bytes. What is the output of above program?</p>			
Answer Options	A)	B)	C)	D)
	4 15	2 1	4 1	Compile-time error
Right Answer	A			

Question No. 87	<p>A program attempts to generate as many permutations as possible of the string, 'abcd' by pushing the characters a, b, c, d in the same order onto a stack, but it may pop off the top character at any time. Which one of the following strings CANNOT be generated using this program?</p>			
Answer Options	A)	B)	C)	D)
	cbad	dcba	cabd	abcd
Right Answer	C			

Question No. 88	<p>Among 4 header files in C compiler, which should be included to use the memory allocation functions like malloc(), calloc(), realloc() and free()?</p>			
Answer Options	A)	B)	C)	D)
	<stdlib.h>	<stdio.h>	<memory.h>	<string.h>
Right Answer	C			

Question No. 89	<p>File is a type of?</p>			
Answer Options	A)	B)	C)	D)
	Struct	Int	Char *	None of the above
Right Answer	A			

Question No. 90	Fill the question mark to get "void pointer" as an output? #include int main(){ char *ptr = "void pointer"; void *vptr; vptr = &ptr; printf("%s" , ?); return 0; }			
Answer Options	A)	B)	C)	D)
	(char *)vptr	*(char *)vptr	*(char **)vptr	(char **)vptr
Right Answer	C			

Question No. 91	Find the odd one out?			
Answer Options	A)	B)	C)	D)
	Extern	Interupt	Huge	Register
Right Answer	B			

Question No. 92	In C, parameters are always			
Answer Options	A)	B)	C)	D)
	Passed by reference	Passed by value	Non-pointer variables are passed by value and pointers are passed by reference	Passed by value result
Right Answer	B			

Question No. 93	A page fault			
Answer Options	A)	B)	C)	D)
	Is an access to the page not currently in main memory	Is an error in specific page	Is reference to the page which belongs to another program	Occurs when a page program accesses a page of memory
Right Answer	B			

Question No. 94	Output of following program? <pre>#include<stdio.h> int main() { int a[] = {1, 2, 3, 4, 5, 6}; int *ptr = (int*)&a+1; printf("%d ", *(ptr-1)); return 0; }</pre>			
Answer Options	A)	B)	C)	D)
	1	Runtime Error	6	2
Right Answer	C			

Question No. 95	The reason for using pointers in a C-program is			
Answer Options	A)	B)	C)	D)
	Pointers allow different functions to share and modify their local variables.	To pass large structures so that complete copy of the structure can be avoided.	Pointers enable complex "linked" data structures like linked lists and binary trees.	All of the above
Right Answer	D			

Question No. 96	A software to create a Job Queue is called.....			
Answer Options	A)	B)	C)	D)
	Linkage editor	Spooler	Driver	Interpreter
Right Answer	A			

Question No. 97	A virtual memory-based memory management algorithm partially swaps out a process. This is an example of			
Answer Options	A)	B)	C)	D)
	Medium term scheduling	Mutual exclusion	Short term scheduling	Long term scheduling
Right Answer	C			

Question No. 98	What will be the output of the C program, if input is 6? <pre>#include int main() { int i = 0; for(i = 0; i == 0; i++) { printf("%d", i); } return 0; }</pre>			
Answer Options	A)	B)	C)	D)
	0	Nothing prints	1	None of the above
Right Answer	A			

Question No. 99	What will be the output of the C program? <pre>#include<stdio.h> int main() { struct node { int a, b, c; }; struct node num = {3, 5, 6}; struct node *ptr = & num; printf("%d\n", *((int*)ptr + 1 + (3-2))); return 0; }</pre>			
Answer Options	A)	B)	C)	D)
	5	Compilation error	3	6
Right Answer	D			

Question No. 100	Which type of pointer is a most convention way of storing raw address in c programming?			
Answer Options	A)	B)	C)	D)
	Integer pointer	Void pointer	Null pointer	Double pointer
Right Answer	B			