PGCET Entrance Exam solution for C.E. 2013

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
1	Phase defination is covered in	CMM 1	CMM 2	CMM 0	All of Above	B
2	Which is a black box testing method?	Equvivance partitioning	Fault injection	Code Coverage	None of above	A
3	A Metrics used to measure the charestric of documentation and code is called	LOC	Test Metric	Product Metric	Process Metric	C
4	A Non Functional Testing is called	Perfomance Testing	White Box Testing	Black Box Testing	Alpha Testing	A
5	1) Testing fault 2) Software fault 3) Design fault 4) Documentation Fault	2 is a valid reason; 1,3,4 & are not	1,2 are valid reasons;3 & 4 & are not	1,2,3 are valid reasons; 4 is not	All of them are valid reasons for failure	D
6	Which of the following statements about component testing is not true?	Component testing should be performed by development	Component testing is also know as isolation or module testing	Component testing should have completion criteria planned	Component testing does not involve regression testing	D
7	Function/Test matrix is a type of	Management report	Interim Test report	Project status report	Final test report	C
8	A reliable system will be one that:	Is unlikely to be completed on schedule	Is likely to be fault-free	Is unlikely to cause a failure	Is likely to be liked by the users	C
9	In unit testing of a module, it is found that for a set of test data, at the maximum 90% of the code alone were tested with the probability of success 0.9. The	At most 0.81	Equal to 0.9	Greater than 0.9	At least 1/0.81	A
10	A program P calls two subprograms P1 and P2. P1 can fail 50% times and P2 can fail 40% times. The program P can fail ?	50%	60%	30%	70%	B
11	Equivalence partitioning is:	A white box testing technique appropriate for component testin	A black box testing technique than can only be used during system	A black box testing technique appropriate to all levels of testing	A black box testing technique used only by developers	C
12	To test a function, the programmer has to write a _____, which calls the function and passes it test data.	Proxy	Driver	Stub	None of the above	B
13	A company needs to develop a strategy for software product development for which it has a choice of two programming languages L1 and L2. The number of lines of code (LOC) developed using L2 is estimated to be twice the LOC developed with L1. the product will have to be maintained for five years. Various parameters for the company are given in the table below. Parameter Language L1 Language L2 Man years needed for development LOC / 10000 LOC / 10000 Development Cost per year Rs. 10,00,000 Rs. 7,50,000 Maintenance time 5 years 5 years Cost of maintenance per year Rs. 1,00,000 Rs. 50,000 Total cost of the project includes cost of development and maintenance. What is the LOC for L1 for which the cost of the project using L1 is equal to the cost of the project using	4000	5000	4333	4667	B
14	A company needs to develop digital signal processing software for one of its newest inventions. The software is expected to have 40000 lines of code. The	234.25	933.45	142.50.	230.25	D
15	Use Case is used for	Capture test cases	Capture requirements	Capture design specification	all of the above.	D

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16	Code review is for	Static testing	State Transition Testing	Dynamic Testing	none of the above.	C
17	Stress testing measures	ability of system to run without failure	ability of system to support users	The poit at which system break down	all of the above.	D
18	QTP is	Testing tool	Test Methedology	Test Metric	all of the above.	A
19	Metric based technique is for	estimating testing effort	perfoming LCSAJ testing	Defect calculation	None of above	D
20	Is it possible to have a software product with "Zero defect"?	No	Yes	May be yes	None of the above.	A
21	A Testing which detect the defects in fully functional software is	Unit Testing	Integration Testing	System Testing	None of the above.	C
22	Pesting Paradox in testing testcase is	By repetating test case, remove errors	correct errors	update errors	None of the above.	A
23	Face to face Communication is in	Prototype Method	Agile Method	Waterfall Method	all of the above.	B
24	W - model is updation of	SpiralModel	Waterfall model	V- Model	all of the above.	C
25	Test Planning includes	Test Strategies	Test methods	Test Bed Creation	all of the above.	D
26	Example of Testing Tool	QTP	Silktest	Selenium	all of the above.	D
27	Non functional testing tool	Load Runner	BugZilla	Qtp	all of the above.	A
28	To Detect cracks and Holes in the networks by	alpha testing	Hardening testing	System Testing	all of the above.	B
29	Data independence means	Integration testing	Alpha Testing	stress testing	Unit testing	B
30	COTS is	Common Testing System	Commercial off the shelf	Code and Test system	None of above	B
31	COTS example is	Autocad	Flash	Mcafee	all of the above.	A
32	Required Skill of Test Manager	Understanding of testing tools	understanding of functional domain	Expertise team lcontromonitoring an	all of the above.	D
33	COTS is for	Reliablility	Reusablility	Portability	all of the above.	D
34	Which testing devides input domain into class for testcase?	Black Box Testing	White Box Testing	Equvivance Testing	Boundry Value Analysis	C
35	Types of review	Inspection	WalkThrough	Technical	all of the above.	C
36	Group Activity can be seen in	Inspection	WalkThrough	Technical	all of the above.	B
37	The person who records the procedding of review meeting is	Recorder	Author	Moderator	Reviewer	A
38	SRS is an artifact of	Analysis phase	Design Phase	Code Phase	Testing Phase	A
39	Nonfunctional requirement is	Reliability	usability	maintainability	All of above	D
40	Evaluting Software during various phases of SDLC is called	Varification	Testing	Validation	all of the above.	B
41	Disadvtage of prototype model is	Less iteration	Error detection at later stage	Not applied to real time system	All of above	C
42	Risk Analysis phase is in	Waterfall model	Spiral Model	Prototype Model	all of the above.	B
43	advtage of prototype model is	User Get Idea about system	Low cost	Fast Development	All of above	A
44	Important aspect of coding is	productivity	efficiency	reliability	all of the above.	D
45	Data structure of application is in	Architectural design	data design	Interface design	All of above	D
46	RAD model was proposed by	IBM	Microsoft	Motorola	Intel	A
47	Which of the following is in design stage…	Abstraction	Information Hiding	refinement	90-120 days	D
48	If n number of programmers are in team , then number of paths is	n	n*(n-1)/2	nlog(n)nlog(n)	n*(n+1)/2n*(n+1)/2	B

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49	if 99% code is written in C and 1% code is written in assembly lenguage then increse in execution time compare to 1% code written in assembly language is	10%	20%	5%	0	D
50	Which of these is not element in object oriented analysis model	Data Element	Behaviour element	Class based element	Scenario based element	A
51	Relationship shown in data model is for	cardinality	modality	directionality	Both (A) and (B)	A
52	UML diagram is useful in representing	Flow base element	Class base element	Scenario base element	Scenario base element	C
53	Behaviour modeling is for	Well defined process	Data element Hiarchy	Specification design	Obeservable mode of behaviou	D
54	State diagram is for	transorm data element	Show relationship between data	Reaction to external event	all of the above.	C
55	In unit testing of a module, the maximum 90% of the code alone were tested with the probability of success 0.5. The reliability of module is ?	45%	100%	90%	50%	A
56	A program P has p1 and p2 sub programs. Probability of p1 fails is 50% and p2 fails is 40%. What about the probability os P fails	30%	70%	10%	20%	B
57	Which of this is not software engineering layers	Method	Tools	Manufacturing	Process	C
58	Five generic software frame work activities are	analysis , Design, Code, maintenance,test	communication,planning,modelling,construction,deployment	communication,risk management, design, code, test	Analysis,planning,design,code,test	B
59	Evolutionary model is	iterative in nature	not produce throw away	accommodate changes easily	all of above	A
60	Incremental model approach in software development is useful in	complex project	small project	develop core module	all of above	C
61	The approach/document used to make sure all the requirements are covered when writing test cases	Test bed	Traceablity Matrix	Test Metric	All of above	B
62	Executing the same test case by giving the number of inputs on same build called as	Retesting	Regresssion testing	Adhoc Testing	perfomance testing	A
63	Assertions are conditions which are true at the point of execution	Sometimes	Many Times	Always	None	B
64	Top down approach is used for	Testing and validation	Reverse engineering	Identification of faults	Development	D
65	The first item defined for a new system is its	Input	Output	Storage	Processing	B
66	The feature of the object oriented paradigm which helps code reuse is	Inheritance	Aggregation	Object	Class	A
67	The first item defined for a new system is its	Input	Output	Storage	Processing	B
68	To test competing product in to the market comparision testing is done	TRUE	FALSE			A
69	A key concept of quality control is that all work products	Are delivered on time and under budget	Have complete documentation	Are thoroughly tested before delivery to the customer	Have measurable specification for process outputs	D

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70	What are the three generic phases of software engineering?	Analysis, design, testing	Definition, development, support	What, how, where	Programming, debugging, maintenance	**B**
71	Coupling and cohesion can be represented using a	Dependence matrix	SRS	Cause-effect graph	Chart	**A**
72	Software feasibility is based on which of the following	Scope, constraints, market	Business and marketing concerns	Technology, finance, time, resources	Technical prowess of the developers	**C**
73	The first item defined for a new system is its	Input	Output	Storage	Processing	**B**
74	The feature of the object oriented paradigm which helps code reuse is	Inheritance	Aggregation	Object	Class	**A**
75	The process is at least documented in CMM	Level 1	Level 2	Level 3	Level 4	**B**
76	Which of the following statements are TRUE about an SQL query? P : An SQL query can contain a HAVING clause even if it does not have a GROUP BY clause Q: An SQL query can contain a HAVING clause only if it has a GROUP BY clause R : All attributes used in the GROUP BY clause must appear in the SELECT clause S : Not all	P and R	Q and R	P and S	Q and S	**B**
77	An index is clustered, if	the data records of the file are organized not in the same order	the data records of the file are organized in the same order as	it is on a set of fields that form a candidate key	it is on a set of fields that include the primary key	**D**
78	Function point metric of a software also depends on the	Number of function needed	Number of final users of the software	Number of external inputs and outputs	all of above	**A**
79	The worst type of coupling is	Stamp coupling	Content coupling	Control coupling	Data coupling	**B**
80	FP-based estimation techniques require problem decomposition based on	Software functions	Process activities	Information domain values	Project schedule	**A**
81	Cohesion is closely bound to	Inheritance	abstraction	coupling	None of above	**B**
82	Which coupling is high ?	Control coupling	Content coupling	message coupling	None of above	**B**
83	Which is not a size metric?	Cyclomatic complexity	Function count	LOC	Program length	**A**
84	IEEE 830-1993 is a IEEE recommended standard for	Software design	Testing	Software requirement specification	Both (A) and (B	**C**
85	The ISO quality assurance standard that applies to software engineering is	ISO 9000	ISO 9003	ISO9002	ISO 9001	**D**
86	Many causes of the software crisis can be traced to mythology based on	Customer Myths	Management Myths	Practitioner Myths	all of above	**D**
87	What is an incremental software process model that emphasize an extremely short development cycle?	RAD	Prototype	SpiralModel	None of above	**A**
88	Data structure coupling is also know as	content coupling	stamp coupling	messsage coupling	control coupling	**B**
89	For a data entry project for office staff who have never used computers before (user interface and user-friendliness are extremely important), one will use	Spiral Model	Prototype Model	Water Fall Model	all of above	**B**
90	Top-down design does not require	step-wise refinement	modularity	flow charting	loop invariants	**D**
91	Which of the following graph theoretic concept will be useful in software testing?	Cyclomatic number	Hamiltonian circuit	Eulerian cycle	None of the above	**A**
92	One of the fault base testing techniques is	Stress testing	Unit testing	Beta testing	Mutation testing	**D**

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93	Reliability of software is directly dependent on	user requirement	number of errors present	quality of the design	software engineers experience	B
94	Which one of these are not software maintenance activity	Error correction	Establishing scope	Adaptation	Enhancement	B
95	Emergency fixes known as patches are result of	Adaptive maintenance	Perfective maintenance	Corrective maintenance	None of above	C
96	Changes made to an information system to add the desired but not necessarily the required features is called	Adaptive maintenance	Corrective maintenance	Perfective maintenance	Preventative maintenance	C
97	Reverse engineering is the process which deals with	Size measurement	Design recovery	Cost measurement	All of the above	B
98	Which of the following is not one of the WebApp requirements analysis tasks?	Analysis Modelling	Requirement Gathering	Formulation	User Interface Prototyping	D
99	As use-cases are organised to functional packages.Each functional Package must be	Highly Coheshive	Comprehenshive	Loosly coupled	All of above	D
100	Which of the following is not one of the dimensions of quality used to assess a WebApp	Content	maintainability	links	Nevigation	B
101	Which of the following is not the WebApp Interface Mechanism?	Forms	cookies	browser	links	A
102	Which of these terms is a level name in the Capability Maturity Model?	Reusable	Organized	Repeatable	Ad hoc	C
103	Reliability of software is directly dependent on	user requirement	number of errors present	quality of the design	software engineers experience	B
104	Graph based testing is only applied to object oriented system?	Yes	No	Can't Say	May be yes	B
105	Use case provide useful input for design of black-box test for	OO software	Application Software	System Software	None of above	A
106	____ a measure of some property of a piece of software or its specifications	SRS	input	output	Software Metric	A
107	Methods for estimation in software engineering include:	Analysis Effort method	Function Point Analysis	COCOMO	All of Above	D
108	if a software engineer has built a small web-based calculator application, we can say that the project effort is	200 man-hours	300 LOC	30 FP	None of above	A
109	if a software engineer has built a small web-based calculator application, we can say that the software size is	200 man-hours	300 LOC	40 person-month	None of above	B
110	Software Configuration Management include	version control	naming convention (programming)	software archival agreements	all of above	D
111	The purpose of project monitoring and control is to keep the team and management up to date on	the project's progress	Project's scheudle	Project's planning	None of above	A
112	Risk management is associated with	ISO 9000	ISO 9001	ISO 31000	None of above	C
113	Composite Risk Index value =	Riskevent/Probability of occurance	Risk event x Probability of Occurrence	Constant (3.0)	None of above	B
114	sprinklers are designed to put out a fire to reduce the risk of loss by fire is called	Risk mitigation	Risk monitoring	Risk reduction	None of above	C
115	Self Insurance falls under	Risk mitigation	Risk monitoring	Risk reduction	Risk retention	C
116	In an if statement	we can always design test data to execute the controlled statement	the problem of designing test data to execute the controlled	the problem of designing test data to execute the controlled	none of the above	D

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117	Jacob has written a program to complete the roots of the quadratic equation ax2+bx+c=0. Assuming a 16 bit computer to exhaustively test his program for all integer values for a, b and c he requires	an infinite number of test cases	2^ 48 test cases	2^164 test cases	None of above	C

118	Consider the code below
	begin
	If (y<=0) then y = 0-y;
	abs = y
	End;
		error in code as negative values remain negative	The code finds absolute value of y	error in code as positive values remain negative	None of above	D

119	Ashok rewrites part of the code in some production code making it more efficient. This maintenance activity is called	perfective	adaptive	corrective	none of above	D
120	An error is detected in some production code. The maintenance effort to fix the error is called	perfective	adaptive	corrective	none of above	C
121	Choose the correct statement	Testing can show the presence of bug but never absence	Testing can always find the bug	If we test enough we can find all bugs	None of above	D
122	Testing is best done	By Analyst	By programmer	By Software Engineer	By independent test team	D

123	Clinton wants to test his module where he had forgotten to initialize x
	If x = 0 then
	Write ("abnormal")
	Else
	Write ("normal");
	End if;
		The tests he generates may give nonrepeatable results	The tests will always given repeatable results	He will find the bug for all runs of the program	None of the above.	C

124	Ramesh wants to test the folowing program by generating random test values for x and y. The error in the program is z = 22 should be there
	read (x);
	read (y);
	If (x== y) then
	z = 2;
	else
	z = 0;
	end If;
		Random testing is insufficient as the bug may never detected	Random testing will always find the bug	Random testing always generates equal value of x and y	None of above	A

125	Suresh and Ramesh design test cases for a fragment of code. Suresh runs 100 test cases but Ramesh runs 200 test cases	Ramesh's testing is much better	Suresh's testing may be better than Ramesh	200 test cases would have been enough	None of the above	C
126	Mohit writes test data which will exercise each edge of the flow graph for his program	His method of edge coverage is not enough	His testing is exhaustive as he will find all the bugs	His test data has to be carefuly designed and will work for all flow graphs	None of above	B

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127	Consider the above modules Ca and Cb where a and b are the sizes. Then	E (a + b) > Ea + Eb	E (a + b) < Ea +Eb	E (a + b) > =Ea + Eb	None of the above	**A**
128	Variation in debugging : coding ability has been reported to be	01:10	01:02	01:05	01:20	**A**
129	Form the detailed design speciication. If the coding is done in C++ : C : assembler the resulting code sizes will be on the average.	01:03:05	`1:10:100	01:03:10	01:02:05	**B**
130	Consider two modules A and B, both utility programs in the same organization developed by the same team of programmers, where a and b are the sizes, respetively. The cost to develop each module is Ca and Cb. The efforts are Ea and Eb. if Ca > Cb then	Ea < Eb	Ea > Eb	Ea = Eb	both (A) and (C)	**B**
131	Informational cohesion is a realization of	Data abstraction	modularity	concurrency	data hiding	**A**
132	The rating of coupling of modules for strongest (least desirable) to weakest (most desirable) are	content,common,control,stamp	common,content,control,stamp	stamp,control,content,common	None of above	**A**
133	The largest %cost of software life cycle is in	feasibility	Testing	Design	Maintenance	**D**
134	Which is not a component of Object Oriented s/w Engineering?	Process	Method	Architectue	None of above	**C**
135	Cyclomatic complexity metric provide information regarding number of	error in the program	cycle in the program	independent logical path	statement in the program	**C**
136	Cyclomatic complexity metric provide information regarding number of	error in the program	cycle in the program	independent logical path	statement in the program	**C**
137	Which of the following is not the characteristic of software ?	Software does not wear out	Software is flexible	Software is not manufactured	Software is always correct	**D**
138	Which of the following is not a product matrix ?		Productivity	Reliability	Size	**B**
139	Which of the following is not a process metric ?	Functionality	Productivity	quality	Efficiency	**A**
140	Efforts is measured in terms of ?	Rupee	Person	Person - Months	Month	**C**
141	Match the following	1-A , 2-C , 3-D, 4-B	1-B , 2-C , 3-D, 4-A	1-C , 2-A , 3-B, 4-D	1-C , 2-A , 3-D, 4-B	**D**
142	To completely write the program in FORTRAN and rewrite the 1% code in assembly language, if the project needs 13 days, the team consists of ?					**A**
143	If 99% of the program is written in FORTRAN and the remaining 1% in assembly language, the percentage increase in the programming time compared to writing the entire program in FORTRAN and rewriting the 1% in assembly language is ?	10	13	5	8	**C**
144	If the entire program is written in FORTRAN, the percentage increase in the execution time, compared to writing the entire program in FORTRAN and rewriting the 1% in assembly language is ?	9	8		0.9	**C**
145	Stress testing measures	Robustness	Recovery from error	Security	None of above	**A**

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146	Given a source code with 10 operators includes 6 unique operators, and 6 operand including 2 unique operands. The program volume is ?	100	48	40	36	B
147	Project indicator enables a software project manager to ?	uncover problem araes before they " go critical "	track potential risks	assess the status of an ongoing project	All of above	D
148	Once object oriented programming has been accomplished, unit testing is applied for each class. Class tests includes ?		Random testing	Fault based testing	All of above	D
149	In risk analysis of spiral model, which of the following risk includes ?	Technical	Management	Both A and B	None of above	C
150	To avoid errors in transcription and transposition, during data entry the system analyst should ?	Provide batch totals	Provide for a check digit	Provide hash totals	all of above	D
1	What is the grammar for generating strings like a=b=c?	right→ le↑er=right|le↑er letter→ a|b|..|z	right→ le↑er=le↑er letter→ a|b|..|z	right→ le↑er=le↑er|le↑er letter→ a|b|..|z	right→ right=le↑er|le↑er letter→ a|b|..|z	
2	Out of the following grammars, which one is right associative grammar?	string→ string+string|0|1|2|3	stmt→ if (expr) stmt else stmt	right→ le↑er=right|le↑er letter→ a|b|..|z	list→ list+digit|digit digit→ 0|1|2|3	C
3	An attribute is said to be ____ if its value at a parse tree node is determined from attribute values at the children of the node.	synthesized	inherited	syntax	parsed	A
4	_____is the process of determining if a string of tokens can be generated by a grammar.	scanning	parsing	stack	analysis	B
5	_____ can handle large class of grammars and translation schemes.	left-to-right	top-down	right-to-left	Bottom-up	D
6	In compiler, analysis consists of which three phases?	Linear,Hierarchical,Semantic	linear,portable,bottom-up	Linear,nonlinear,synthesis	linear,nonlinear,top-down	A
7	Hierarchical analysis is also called _____	lexical analysis	semantic analysis	syntax analysis	synthesis	C
8	_____ is the compressed representation of the parse tree.	syntax tree	semantic tree	directed acyclic graph	graph	A
9	Who allows a user to define shorthands for longer constructs?	macro preprocessor	rational preprocessors	language extensions	File inclusion	A
10	The output of the second pass of assembler is called what?	hypothetical machine code	relocatable machine code	pass code	register transfer code	B
11	The technique of merging intermediate and target code generation into one pass is called .	backtracking	forwarding	backpatching	looping	C
12	In a translation scheme, _____ are embedded within the right sides of the production.	parsing rule	syntax directed definition	operator precedence	semantic actions	D
13	is used to describe patterns	token	context free grammar	lexeme	regular expression	D
14	Which part of the compiler strip out comments from the source programme?	semantic analyzer	lexical analyzer	code generator	parser	B
15	Lexical analyzers are divided into cascade of which two phases?	parsing,semantic analysis	regular expression,context free grammar	scanning,lexical analysis	code generator,code optimization	C
16	The advantage of separating analysis phase into lexical analysis and parsing is	enhanced writability	enhanced portability	enhanced readability	enhanced security	B

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17	const pi=3.1416, pi in lexical analysis is called _____	lexeme	identifier	pattern	symbol	A
18	Which error will not be identified by lexical analyzer?	fi (a==f(x))…	a=(b	a=b c	all of the above	A
19	Which is the prefix of the string ahmedabad?	ahmedabad	med	bad	abad	A
20	Which is the substring of string gujarat?	gjrt	jar	gja	rag	B
21	Which is the subsequence of the string gujarat?	gjrt	rjg	jug	rgu	A
22	What can not be described by regular expressions?	balanced constructs	nested constructs	repeating strings	all of the above	B
23	Out of the following , which one is the syntactic error?	misspelling an identifier	operator applied to incompatible operand	arithmetic expression with unbalanced parantheses	infinitely recursive calls	C
24	synchronizing token is used in which type of error recovery?	phrase level	panic mode	error production	global correction	B
25	Rightmost derivations are sometimes called	canonical derivation	left derivation	derived derivation	constant derivation	A
26	E⊢-(E+E)⊢-(id+E)⊢(-id+id) , this is the example of	rightmost derivation	leftmost derivation	top down derivation	bottom-up derivation	B
27	A grammar that produces more than one parse tree for some sentence is said to be	context free	context sensitive	ambiguous	regular	D
28	A left recursive grammar can cause a recursive descent parser with backtracking to go into	infinite loop	panic mode	recovery mode	execution mode	A
29	Which four components are there in table driven predictive parser?	input buffer,stack,parsing table,output stream	input string, stack, transition diagram, output stream	input buffer,stack,regular definition,output stream	input buffer,stack, error recovery, output stream	A
30	FOLLOW function can be used as what during panic mode recovery?	nonterminal	terminal	synchronizing token	casesensitive character	C
31	Left recursion elimination and left factoring make the resulting grammar	both B and C	hard to read	difficult to use for translation process	none of the above	A
32	A rightmost derivation in reverse can be obtained by what?	handle	right sentential form	left sentential form	handle pruning	D
33	The set of prefixes of right sentential forms that can apper on stack of a shift reduce parser are called	handle	viable suffixes	viable prefixes	suffixes	B
34	In LR(k) - k refers to _____	number of symbols of lookahead	number of iterations	number of symbols on stack	number of sets	A
35	In LR(k) parsing, "L" refers to _____	left most derivative	left-to-right scanning	left recursion	left factoring	B
36	In LR(k) parsing, "R" refers to	right-to-left scanning	right side of the production	right most derivation in reverse	right recursion	C
37	Which attribute value at a node in a parse tree is defined in terms of attributes at the parent and/or siblings of that node?	synthesized	Nonterminal	terminal	inherited	D
38	The directed graph that depicts interdependencies among the inherited and synthesized attributes at the nodes in the parse tree is called	dependency graph	directed graph	parse tree	syntax tree	A
39	Which storage allocation strategy manages the run time storage?	run time allocation	static allocation	heap allocation	stack allocation	D
40	When there is a reference to storage that has been deallocated, the reference is called	pointer reference	dangling reference	null reference	deallocated reference	B
41	Shift reduce parsers are	top down parser	bottom up parser	predictive parser	recursive descent parser	B

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42	YACC builds up	SLR parsing table	Canonical LR parsing table	LALR parsing table	None of the above	C
43	Inherited attribute is a natural choice in	Keeping track of variable declaration	Checking for the correct use of L values and R values	both A and B	None of these	C
44	An intermediate code form is	syntax tree	post fix notation	three address code	all of these	D
45	Instructions involving register operands are usually _____ and _____ than those involving operands in memory.	shorter and slower	shorter and faster	longer and slower	longer and faster	B
46	A ____ is a rule that describes that set and a _____ is a sequence of characters matching the patterns	lexeme,pattern	pattern,lexeme	pattern,token	token,lexeme	B
47	Non backtracking top-down parsers are also called _____	predictive parser	recursive descent parser	Both a and b	Canonical LR parsing	A
48	All SLR(1) grammars are also _____.	LR(1)	LALR(1)	LL(1)	operator precedence	A
49	S-attributeddefinition can be implemented using _____ parsers.	LL	LR	both a and b	neither a nor b	B
50	The execution of a procedure body is called ___ of the procedure maintained on _____.	Expansion,control stacks	copying, control stacks	Activation,control stacks	None of these	C
51	Static binding is performed at ____ while dynamic binding is performed at	Run time,compile time	link time,compile time	compile time,run time	link time,link time	C
52	_____ and _____ are disadvantages of manual deallocation.	starvation,dangling references	memory leaks,dangling references	starvation,memory leaks	starvation,heap allocation	B
53	Eliminating redundant load is an example of ____ optimization.	Runtime	Peephole	Algorithmic	logical	B
54	Instructions that compute a value that is never used is called ____.	Dead code	Hibernating code	static code	dynamic code	A
55	What will be the precedence relation id __ + __id	>,<	<,>	>,=	<,=	A
56	Initial item S'┤ .S is considered _____	kernel item	nonkernel item	itemset	initial item	D
57	The term l-value refers to the _____ of an expression and r-value refers to the _____ of an expression.	nonterminal,value	value,storage location	storage location,value	terminal,storage location	A
58	In call-by-reference mechanism of parameter passing, the _____ of actual parameter is passed to the function.	value	address of the memory location	name	none of the above	B
59	The stack holds all the ____ variables defined within a function during its activation.	global	environment	control	local	D
60	What type of language is "C"?	weakly typed	static type	strongly typed	none of the above	C
61	What is the regular expression for matching quoted strings?	\"[a-zA-Z0-9]\"	\"[a-zA-Z]\"	\"[^"\n]*["\n]	\"[a-zA-Z0-9]\"\n	A
62	What is the prurpose of -d option when following command is executed? yacc -d ch3-01.y	make y.tab.c	make y.tab.c and y.tab.h	make y.tab.c and link to lex library	make y.tab.c and lex.yy.c	C
63	What is the interpretation of following YACC declaration? '	"+" and "-" appears on the left side of production	"+" appears to the left of	"+" has a higher precedence than "-"	"+" and "-" are left associative	D
64	What is the meaning of regular expression A{1,3}	match one,two or three occurences of letter A	match if the string contains A,1,2 and 3.	match one to three occurences of letter A	match if the string contains A,1 and 3.	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
65	What will be the output of the code optimizer, if the following input is given? temp1:=inttoreal(60),temp2:=id3*temp1,temp3:=id2*temp2,id1:=temp3	id1:=id2+id3*60	temp1:=id3*60 id1:=id2+id3*60.0	temp1:=id3*60	id1:=id2+temp1	D
66	What will be the output if we remove the left recursion? expr┤ expr+term ├term	expr┤ termexpr' expr'┤ +termexpr' ├Є	expr┤ expr' expr'┤ term+expr	expr┤ termexpr' expr'┤ +termexpr'	expr┤ termexpr' expr' Є	A
67	What is the regular definition of unsigned numbers?	num┤ digit(.digit+)?(E(+├-)?digit+)?	num┤ digit+(.digit+)?(E(+├-)?digit+)	num┤ digit+(.digit+)?(E(+)?digit+)?	num┤ digit+(.digit+)?(E(+├-)?digit+)?	D
68	In call-by-reference mechanism of parameter passing, the _____ of actual parameter is passed to the function.	value	position	address	sata	C
69	In case of procedure calls in C, what is saved on the stack?	value	program counter machine register	address	function definition	C
70	The storage layout for data object is strongly influenced by the of the target machine	data constraints	heap constraints	stack constraints	addressing constraints	D
71	what is true in case of static allocation	the size of the data object must be known at compile time	recursive procedure are unrestricted	data structure can be created dynamically	all of these	D
72	what is placed in the middle in case of activation records ?	fields whose sizes are not fixed early	fields whose sizes are defined at run time	fields whose sizes are not proper	fields whose sizes are fixed early	D
73	Use of dangling references, is what type of error?	logical error	syntactical	lexical	semantic	B
74	consider the grammer S┤ (L) ├S L┤ L, S ├S which string we can generate out of above grammer ?	(a,((a,a),(a,a)))	(a,(a,a),(a,a)))	(a,((a,a,(a,a)))	(a,((a,a,a,a)))	A
75	consider the grammer bexpr┤ bexpr or bterm ├bterm bterm┤ bterm and bfactor ├bfactor┤ rootbfactor ├(bexpr) ├true ├false	grammer generates all relational expression	grammer generates all logical expression	grammer generates all mathematical expression	grammer generates all boolean expression	B
76	This grammar is R┤ R' ├'R ├RR ├R* ├(R) ├a├b _____	not ambiguous	not a valid grammar	ambiguous	none of the above	C
77	What type of grammer is this ? S┤ Aa ├bAc ├dc ├bda A┤ d	LALR(1)	operator precedence	SLR(1)	undefined	A
78	consider the grammer S┤ aSbS ├bSaS ├Є which string can be generated by the above grammer ?	ab	aabb	abab	all of these	D
79	S -> AaAb BbBa A -> Є B -> Є what is in the FIRST(S) ?	{a}	{Є}	{b}	{a,b}	B
80	S -> AaAb| BbBa A -> Є B -> Є	{$,a,b}	{}	{a,b}	{Є}	C
81	Which string is not generated by the following grammer ? S┤ aSa ├aa	6 a's	3 a's	4 a's	8 a's	B
82	how lexical analyzer can be implemented ?	produce a lexical analyzer from a regular-expression	use context free grammar	use directed acyclic graph	use heap storage	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
83	out of following what is the most concerned part for compiler design ?	logical operations	speed of lexical analysis	stack implementation	ease of operations	C
84	what does the lexical analyzer do in case of following input ? = 1.25	DO is a keyword	DO is not a keyword	lexical error	recovery	A
85	what is the purposr of function ungetc if used with lexical analyzer ?	to push scanned characters back in the input stream	To stop taking the input	to push lookahead characters back in the input stream	To read next character	C
86	how can we specify pattern of zero or more a's in lexical analysis ?	a-a	[a-a]	a+	a*	D
87	what does the following rule specify if we write (rs)t = r(st) where r and s are regular expressions.	bracket is not important	order of regular expression is not important	concatenation is associative	regular expression r,s,t are equal	C
88	what is the alternate representation for r*	r+	(r┼Є)*	(r┼0)*	r+0	B
89	for what purpose yylval is in LEX tool ?	To check whether the entered text is tring or integer	To convert the value to integer	to hold the lexical value returned	undefine the value	C
90	for what purpose yyleng is in LEX tool ?	integer telling how long the lexeme is	string telling the value of the lexeme	number of digits in lexeme	number of alphabets in lexeme	A
91	in the input buffering in lexical analysis where the sentinel character is kept ?	each buffer half holds a sentinel character at the beginning	both buffer half holds a sentinel character at the end and beginning	each buffer half does not hold a sentinel character at the end	each buffer half holds a sentinel character at the end	D
92	what regular expression lexical analyzer will use to strip out white spaces ?	delim -> blank | tab | newline ws -> delim	delim -> blank | tab | newline ws -> delim*	delim -> blank | tab | newline ws -> delim+	ws -> blank | tab | newline	C
93	what regular expression lexical analyzer will we to find optional fractional part of decimal number ?	optional_fraction ┼ (.digits)	optional_fraction ┼ (.digits) +	optional_fraction ┼ (.digits) *	optional_fraction ┼ (.digits) ?	B
94	I={E┼ E'.+T} then goto(I,+) consists of _____	I={E┼ E'+.T}	I={E┼ E'+T}	I={E┼ E'.+T}	I={E┼ E'+T.}	A
95	What type of grammar is this? S-> L=R S-> R L-> *R L ->id R-> L	not SLR(1)	SLR(1)	ambiguous	right recursive	A
96	The process of computing the attribute values at the nodes is called _____ the parse tree.	evaluating	decorating	analyzing	traversing	B
97	What identifies the common subexpression in the expression?	directed acyclic graph	directed graph	syntax tree	parse tree	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
98	The flow control in a program corresponds to _____ traversal of the activation tree	active	breadth first	top down	depth first	D
99	Match the static notation and its dynamic counterpart in context of compiler.	definition of a procedure - activation of the procedure	declaration of a name-binding of the name	scope of a declaration - lifetime of binding	all of these	D
100	How symbol table is stored in compiler?	as a hash indexed on the lexeme	as a pointer to the lexeme	as a pattern index	as an array of values	A
101	Which pattern will match if following command is executed? egrep -n -e '[^b]a'	labs	bat	ball	bracket	A
102	What regular expression will be written if we want to match any input line where letter p or q or s exist?	egrep -n -e '[$p-s]'	egrep -n -e '[p┼s]'	egrep -n -e '[^p-s]'	egrep -n -e '[p-s]'	
103	In which case we cannot build predictive parser?	nonrecursive call	nondeterminism in transition diagram	recursive procedure call	determinism in transition diagram	B
104	Which methods can be used to compute the attributes of different symbols in syntax directed definition?	translation interleaved with parsing	parse tree method	rule based method	all of these	A
105	Who determines the shift reduce parsing decision?	state	state symbol on the top of the stack and current input symbol	current input symbol	FOLLOW set	B
106	in upon constructing LR(1) sets of items following grammer generates which type of conflict ? S' S┤ aAd ┼ bBd ┼ aBe ┼ bAe A┤ c B┤ c	reduce - reduce conflict	shift-reduce conflict	shift - shift conflict	reduce-shift conflict	A
107	what is the syntex directed definition for the following ? 1. D > TL 2. T -> int 3. T -> real 4. L -> L1, id 5. L -> id	1. L.in := T.type 2. T.type := integer 3. T.type := real 4. L1.in := L.in addtype(id.entry, L.in) 5. addtype(id.entry, L.in)	1. L.in := T.type 2. T.type := integer 3. T.type := real 4. L1.in := L.in 5. addtype(id.entry, L.in)	1. T.type := L.in 2. T.type := integer 3. T.type := real 4. L1.in := L.in addtype(id.entry, L.in) 5. addtype(id.entry, L.in)	1. T.type := integer 2. T.type := real 3. L.in:=T.type 4. L1.in := L.in addtype(id.entry, L.in) 5. addtype(id.entry, L.in)	A
108	what is the initial set of items in case of LR(1) items for the following augmented grammer ? S' -> S S->CC C->Cc | d	I0:S'┤ ●S,$ S┤ ●CC, $ C┤ ●cC, c C┤ ●d, d	I0:S'┤ ●S,$ S┤ ●CC, $ C┤ ●cC, c┼d C┤ ●d, c┼d	I0:S'┤ ●S,$ S┤ ●CC, $ C┤ ●cC, C C┤ ●d, d	I0:S'┤ ●S,$ S┤ ●CC, $ C┤ ●cC, C C┤ ●d, C	B
109	Which type of three address code requires lesser space?	Quadruples	Indirect triples	Triples	none of these	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
110	Out of the following, which translation scheme maps infix expression to corresponding postfix expression?	E→TR R→addop T{print(addop.lexeme)}R1 → Є	E→TR R→addop T R1 → Є	E→TR R→addop {print(addop.lexeme)} T R1 → Є	E→TR R→addop T R1 {print(addop.lexeme)} → Є	A
111	For the semantic rule A.a:=f(X.x,Y.y,Z.z) is associated with the production A→XYZ. Before XYZ is reduced to A,which a↑ribute will be on the top of the stack?	X.x	Z.z	Y.y	A.a	A
112	In which case stack allocation strategy cannot be used?	value of local names must be retained when activation ends	A called activation outlives the caller	both of these	none of these	C
113	What is the result if left factoring is done on the grammar? iEtS → iEtSeS →a E→b	S -> iEtSS' S'-> eS E-> b	S-> iEtS' S'-> eS |Є E-> b	S -> iEtSS' S' ->S |Є E ->b	S -> iEtSS' S'-> eS |Є E-> b	D
114	What is the result if left recursion is removed from the grammar? S-> Aa→b A->Ac→Sd→Є	grammar is not left recursive	S-> Aa→b A->cA'→adA'→Є	S-> Aa→b A->bdA'→A' A'->cA'→adA'→Є	cannot remove left recursion	C
115	Why LR parser is attractive?	recognize all programming language construct	most general nonbacktracking shift reduce parsing	superset of predictive parsers	all of these	D
116	What is the drawback of LR parser?	difficult to understand	too much work to construct LR parser by hand	No drawback	No tool available to generate parser	B
117	What is the three address code for the statement if x<y goto lbl	lbl LT x y	lbl x y LT	LT x y lbl	none of these	D
118	f:=g is related to which issue of the code optimization in compiler?	common subexpression	dead code elimination	copy propagation	Loop optimization	C
119	Which method decreses the amount of code in a loop?	common subexpression	code motion	copy propagation	Loop optimization	A
120	What is the code motion equivalent of the statement while (i<=limit-2)	while(limit-2>=i)	while (i>limit-2)	t=limit-2 while(i<=t)	for(i=0;i<=limit-2;i++)	C
1	process is an executing program, including the current values of the ____, _____ and _____.	counter,registers and variables	counter,interrupt,functions	functions,stack,program counter	local and global variables	C
2	In UNIX process is created by which system call?	create	fork	system	process	B
3	Which data structure contains the address of interrupt service procedure?	interrupt array	interrupt routine	interrupt address	interrupt vector	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
4	What term is used to indicate that if one process is using shared variable or file , the other processes will be excluded from doing the same thing.	deadlock	mutual exclusion	mutual awareness	mutual denial	B
5	The part of the program, where the shared memory is accessed is called _____	shared heap	shared region	crtitical section	not accessible data	C
6	Which criteria constitutes a good scheduling policy?	Turnaround	response time	throughput	all of these	D
7	Allowing processes that are logically runnable to be temporarily suspended that type of scheduling is called _____	preemptive scheduling	process starvation	premature leaving	process observation	A
8	In round robin scheduling , what is the effect of setting the two short quantum?	too many process switches	too few process switches	increases CPU efficiency	too many sleeps	A
9	A _____ can be thought of as a program in execution.	assembly program	thread	executable program	processs	B
10	A batch system executes _____, wheareas a time-shared system has _____.	tasks,threads	processes,threads	jobs,user programs	jobs,tasks	D
11	A process includes the _____, which contains temporary data(such as function parameters,return addresses and local variables)	stack	program counter	data section	heap	A
12	What does a process include that is memory that is dynamically allocated during processes run time?	array	heap	vector	stack	B
13	Only one process can be _____ on any processor at any instant. Many processes may be _____ and _____.	running,ready,waiting	running,terminated,waitin g	waiting,running,ready	ready,waiting,running	A
14	The CPU registers in a process control block include which of the following?	accumulators	index registers	stack pointers	all of these	D
15	Page tables and segment tables are part of which piece of information in process control block?	memory management information	cPU registers	process state	accounting information	A
16	What is included as part of accounting information in case of process control block?	CPU and real time used	process priority	page tables	list of I/O devices	A
17	What data structure is used to store all processes?	vector	linked list	tree	array	B
18	What does a ready queue header contain?	pointer to first process control block	pointer to final process control block	pointer to first and final process control block	do not contain any thing	C
19	The list of processes in a device queue is waiting for a _____	process	particular I/O device	CPU	thread	B
20	What type of scheduler is needed for batch system?	process scheduler	short term scheduler	CPU and real time scheduler	long term scheduler	D
21	What type of scheduler is needed for processes that are ready to execute?	process scheduler	short term scheduler	CPU and real time scheduler	long term scheduler	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
22	short time scheduler is _____	slow	inefficient	fast	improper	C
23	_____ uses more of its time doing computations.	interrupt processes	I/O bound processes	CPU bound processes	memory bound processes	C
24	In which case short term scheduler has little work to do?	all processses are interrupt processes	all processses are I/O bound processes	all processses are CPU bound processes	all processses are memory bound processes	D
25	Which type of systems do not have long term scheduler?	real time system	batch system	time sharing system	single process system	D
26	The task of performing the state save of currrent process and state restore of a different process is called _____	context switch	process switch	memory switch	task switch	A
27	context switch time is overhead for the operating system because _____	system goes in wait mode	system does useful work	system creates many new processes	system does no useful work	A
28	On UNIX, listing of processing can be obtained using which command?	ps	execute	process	ls	A
29	Which process in UNIX, serves as a root parent process for all processes?	root	parent	init	login	A
30	each process in UNIX is identified by _____	process pointer	process tag	process identifier	process table	C
31	A process is _____ if it can affect or be affected by the other processes executing in the system.	cooperating	CPU sharing	memory sharing	I/O sharing	A
32	Which two models can be used for interprocess communication?	shared memory,vactor passing	shared memory,message passing	segmented memory,message passing	page memory,message passing	B
33	Which concept is easier to implement for intercomputer communication?	page memory	shared memory	message passing	segmented memory	C
34	message passing is useful for _____	intermediate amount of data	larger amounts of data		smaller amounts of data	D
35	In which case send() call of message passing is considered blocking send?	sending process is blocked until the message is received by receiving process	sending process is blocked until the message is not received by receiving process	sending process is blocked until the communication is established	sending process is blocked until the shared memory is defined	D
36	shared memory segment can be removed with the help of which system call?	shmget()	shmat()	shmctl()	shmcreate()	C
37	A system has one network address and it has ____ port	undefined	many	one	none	B
38	Communication in client server system may use	sockets	remote procedure calls	Java's remote method invocation	all of these	D
39	Java provides an interface java.io.serializable. What is the use of object serialization?	allows a state of an object to be written to an array	allows a state of an object to be written to a vector	allows a state of an object to be written to a byte stream	allows a state of an object to be written to a file	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
40	Which two problems are faced by process creation method?	time consuming and resource intensive	time consuming and resource starvation	time sharing and deadlock	time consuming and memory starvation	B
41	Which types of threads are managed directly by the operating system?	kernel threads	user threads	message threads	memory threads	A
42	What is the problem if relationship between user level and kernel level threads is many to one?	entire process will block if a thread makes a computation	entire process will block if a thread makes a blocking system call	entire process will block if a thread makes an exit	no problem	B
43	What is the problem if relationship between user level and kernel level threads is one to one?	overhead of data	overhead of creating user threads	overhead of starting Operating system	overhead of creating kernel threads	D
44	The benefits of multithreading include	increased responsiveness to user	resource sharing within the process	economy	all of these	D
45	The interval from the time of submission of a process to the time of completion is the time.	tunaround time	throughput time	average time	wait time	A
46	The criteria of waiting time in CPU scheduling includes	time during which a process executes	time during which a process does I/O	spends waiting in the ready queue	all of these	B
47	In which type of system turnaround time may not be best criteria for CPU scheduling?	real time system	interactive	time sharing	batch system	D
48	Process execution consists of _____	cycles of CPU execution	cycle of I/O wait	both A and B	none of these	C
49	To guarantee that all users get good service, _____ the maximum response time.	minimize	maximize	average	none of these	A
50	When a process enters the ready queue, what is linked onto the tail of queue?	process control block	process table	process identifier	free memory block	A
51	What type of scheduling is first come first served?	preemptive scheduling	nonpreemptive scheduling	maximum output sceduling	minimum wait scheduling	B
52	first come first served scheduling algorithm is troublesome for ____ systems	real time system	interactive	time sharing	batch system	C
53	shortest job first scheduling algorithm cannot be implemented at the level of	short term CPU scheduling	long term CPU scheduling	both of these	none of these	A
54	shortest job first scheduling algorithm is	preemptive scheduling	nonpreemptive scheduling	both of these	none of these	B
55	What is a major problem with priority scheduling?	unavailable I/O	unavailable memory	unavailable CPU	starvation	D
56	What criteria can be used to define priority in priority scheduling?	time limits,memory requirements,the number of open files, the average of I/O burst to average CPU burst	time limits,memory requirements, the average of I/O burst to average CPU burst	time limits,memory requirements,the previous priority, the average of I/O burst to average CPU burst	time limits,memory requirements,the number of processes in ready queue, the average of I/O burst to average CPU burst	A
57	What is the time quantum in case of round robin scheduling?	10 to 20 milliseconds	10 to 100 milliseconds	1 to 10 milliseconds	10 to 50 milliseconds	B
58	In round robin scheduling , if there are n processes in the ready queue and time quantum is q What is the maximum waiting time for a process until its next time quantum?	n-1	q	(n-1)xq	nxq	C
59	Which type of kernel is free from race conditions?	nonpreemptive	preemptive	both of these	none of these	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
60	preemptive kernel is suitable for which kind of process?	multiuser	interactive	batch	real time	D
61	Which type of semaphores are known as mutex locks?	counting	infinite	binary	none of these	C
62	Deadlock avoidance require which information in advance?	resources a process will request and use during lifetime	memory usage pattern	resources a process will request	cannot avoid deadlock	A
63	Which of the following resource cannot be simultaneously shared by several processes?	read only files	printer	both of these	none of these	B
64	A deadlock can occur if which of the following conditions hold simultaneously? 1. mutual exclusion 2. hold and wait 3. nopreemption 4. circular wait	1,2	2,3	1,2,3,4	1,2,4	C
65	If program can logically access all addresses from 300040 through 420940(inclusive) then what value is hold by base register and limit register?	300040 120900	300000 120940	300041 110999	300940 120000	A
66	If the processs can be moved during its execution from one memory segment to another , binding must be delayed until ____ time.	compile	run	execution	all of these	B
67	What is the role of memory management unit?	run time maaping from virtual to physical adddresses	load time maaping from virtual to physical adddresses	compile time maaping from virtual to physical adddresses	all of these	A
68	The memory is divided into which two partitions?	resident operating sytem,user processes	resident operating sytem,kernel processes	resident operating sytem,loader	resident operating sytem,compiler	A
69	What is worst fit strategy to select a free hole from the set of available holes in case of dynamic storage allocation problem?	allocate the first hole big enough	allocate smallest hole	allocate contiguous blocks	allocate largest hole	D
70	first fit and best fit strategies of memory allocation suffer from ____	external fragmentation	internal fragmentation	both of these	none of these	A
71	There is a memory allocation scheme with a hole of 18464 bytes. If a processes requests 18462 bytes. Then 2 bytes are left with a hole if exact requested block is allocated. This is called _____	external fragmentation	internal fragmentation	both of these	none of these	A
72	_____ is a memory management scheme that permits the physiacl address of a process to be noncontiguous.	external fragmentation	internal fragmentation	paging	none of these	C
73	If a process needs npages plus 1 byte. It would be allocated n+1 frames, resulting in an _____ fragmentation of _____ frame.	internal,entire	external, last	internal,0	external,0	A
74	In memory allocation, segment 2 is 400 bytes long and begins at location 4300. Reference to byte 53 of segment 2 is mapped onto location	4300	4353	4302	4355	B
75	In which situation Direct access files are of great use?	For indirect access to small amount of information	For immediate access to indirect information	For immediate access to small amounts of information	For immediate access to large amounts of information	D
76	For what purpose access control list is used in operating system?	implement identity dependent access	implement group identity	implement role dependent access	implement file list	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
77	Which command can be used in Linux to set priority in priority based scheduling?	grep	egrep	nice	cal	**C**
78	aging is the solution to which problem?	indefinite blockage of low priority process in priority scheduling	nonpreemptive scheduling in First come first served scheduling	preemptive scheduling in shortest job first	nonpreemptive scheduling in shortest job first	**A**
79	When a process creates a new process which two possibilities exist in terms of execution? 1. parent continues to execute concurrently with children 2. The parent waits until some or all of its children have terminated. 3. The parent exits so children gets memory for execution	1 and 3	1 and 2	2 and 3	1,2 and 3	**B**
80	When a new process is created, which are the two possibilities in terms of the address space? 1. The child process is a duplicate of the parent process 2. The child process has a new program loaded into it. 3. The parent,child process are shifted to new memory area.	1 and 3	1 and 3	1 and 2	1,2 and 3	**C**
81	What is deferred cancellation in case of cancellation of a target thread?	The target thread allows itself an opportunity to terminate init process	The target thread allows itself an opportunity to terminate itself in an orderly fashion	The target thread allows itself an opportunity to terminate memory operations	The target thread allows itself an opportunity to terminate I/O operations	**B**
82	When fork() is used to create a child process, what is the pid for the child process?	random number greater than 0	1	1356	0	**D**
83	Which resources are deallocated by operating system when a process terminates?	physical and virtual memory	open files	I/O buffers	all of these	**D**
84	In which case parerent may terminate the execution of one of its children? 1. The child has exceeded its usage of some of the resources that it has been allocated. 2. The task assigned to the child is no longer required. 3. The parent is exiting and the operating system does not allow a child to continue if its parent terminates.	1,2,3	1,2	2,3	1,3	**A**
85	The assembler generates object modules for loader who is a consumer in this?	assembler	loader	object module	none of these	**B**
86	What does IPC_PRIVATE in case of system call shmget(IPC_PRIVATE,size,S_IRUSR|S_IWUSR)	a new shared memory segment is created.	a new shared memory segment is created with read permission.	a new shared memory segment is created with write permission	a new shared memory segment is created in private memory are.	**A**
87	What is the meaning of NULL in the system call shmat(id,NULL,0)?	shared memory is detached	user selects the location where the shared memory will be attached	operating system selects the location where the shared memory will be attached	process selects the location where the shared memory will be attached	**C**
88	Thread pools offer which benefit?	servicing a request with an existing thread is usually faster than writing to create thread	A thread pool limits the number of threads that exist at any one point.	A and B	none of these	**B**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
89	What is the reason for CPU scheduling decisions?	When a process switches from running to waiting state	When a process switches from running to ready state	When a process switches from waiting to ready state	all of these	D
90	In First come First serve scheduling policy, the burst time for processes A,B,C is 24,3,3. burst time in milliseconds. If the processes arrive in orser B,C,A - the average waiting time	24 milliseconds	27 milliseconds	10 milliseconds	17 milliseconds	D
91	The four processes A,B,C,D has burst time 6,8,7,3. burst time in milliseconds. The average waiting time in case of simple shortest job first scheduling algorithm is	6 milliseconds	7 milliseconds	5 milliseconds	4 milliseconds	B
92	The four processes A,B,C,D has burst time 8,4,9,5 and arrival time 0,1,2,3. burst time and arrival time in milliseconds. The average waiting time in case of preemptive shortest job first scheduling algorithm is	6.5 milliseconds	7 milliseconds	6 milliseconds	4 milliseconds	A
93	The four processes A,B,C,D has burst time 8,4,9,5 and arrival time 0,1,2,3. burst time and arrival time in milliseconds. The average waiting time in case of nopreemptive shortest job first scheduling algorithm is	6.5 milliseconds	7 milliseconds	7.75 milliseconds	6 milliseconds	C
94	The five processes A,B,C,D,E has burst time 10,1,2,1,5 and priority 3,1,4,5,2 respectively. burst time in milliseconds. The average waiting time in case of priority scheduling algorithm is ____	6.9 milliseconds	8.2 milliseconds	7.75 milliseconds	6.3 milliseconds	B
95	If three processes A,B,C arrive at time 0 and length of the CPU burst in milliseconds is 24,3,3 respectively and if the time quantum is of 4 milliseconds then average waiting time in round robin scheduling is	10 milliseconds	7.4 milliseconds	6.2 milliseconds	5.66 milliseconds	D
96	If time quantum is too large, round robin scheduling degenerates to which scheduling policy?	First come first served	shortest job first	priority	none of the above	A
97	What is a critical section problem?	design a protocol that the process can use to cooperate	design a protocol that the process can use to access kernel thread	design a protocol that the process can use to access shared memory	design a protocol that the process can use to access CPU	C
98	In priority scheduling, if priorities range from 127(low) to 0(high) anf if priority of waiting process is increased by 1 every 15 minutes, then how many hours will be taken for a priority 127 to reach to priority 0.	30 hours	32 hours	28 hours	24 hours	B
99	If short term scheduler takes 10 milliseconds to decide to execute a process for 100 milliseconds then _____ percent of the CPU is being used for scheduling the work.	10%	9%	0.10%	0%	B
100	The shared buffer is implemented in a circular array with two logical pointer in and out. The variable in points to the next free position in the buffer; out points to the first full position in the buffer. In which situation buffer is full?	in = out	((in+1)%BUFFER_SIZE)=out	buffer cannot be full	in + 1 =out	B
1	A Relation R is called Equivalence Relation if R is	Reflexive	Symmetric	Transitive	All of these	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
2	A function is called “onto” or “surjective”	If domain and co-domain are same	If the range and co-domain are same	If the range and domain are same	None of these	**A**
3	For Language L following is not true	L+ = L*L	L+ = L L*	L+ = L*L*	All are true	**C**
4	In which machine all of the moves for an alphabet must be specified?	Finite Automata	NFA	NFA – Λ	All of these	**D**
5	Turing Machine is more powerful than Finite Automata because	It has no finite state control	It has the capabilities to remember arbitrary long sequence of input symbols	Tape movement is confined to one direction only	None of these	**C**
6	Push Down Automata uses	Tape	Queue	Stack	Tree	**C**
7	Regular Grammar is subset of	Context Free Grammar	Context Sensitive Grammar	Unrestricted Grammar	All of these	**A**
8	(00 + 01 + 10)(0+1)* represents	Strings of even length	Strings of Odd length	Strings not starting with 11	None of these	**C**
9	(00 + 01 + 10 + 11)* represents	Strings of even length	Strings of Odd length	Strings starting with 00	None of these	**A**
10	The regular expression 0*1(0*10*1)* represents strings with	Even no. of 1’s	Odd no. of 1’s	Odd no. of zeroes	None of these	**B**
11	Finite Automata can not have	Accepting State	Starting State	Transition Function	More than one transitions for same input from a state	**D**
12	A→ BC Rule is not allowed in	Context Free Grammar	Context Sensitive Grammar	Regular Grammar	CNF	**C**
13	Starting Symbol of a Grammar is subset of	Terminal Symbols	Non Terminal Symbols	Alphabet	Language	**B**
14	Following is not a primitive operation of a Regular Language	L1 ∩ L2	L1 ∪ L2	L1.L2	L1*	**D**
15	The Regular expression for strings of 0's and 1's which have no pairs of consecutive 0's is	(1 + 01)* (0 +)	(0 +10) *	(0 +11) *	None of these	**A**
16	The set of strings over {a, b}* that contain the substring aa is.	a(a*ba*b)*a*	(a)*(b+a)(b)	(aa + bb)*	(a + b)*aa (a + b)*	**D**
17	The regular expression (a + b)* abb denotes:	all possible combinations of a’s and b’s	set of all strings ending with abb	set of all strings starting with and ending with abb	None of these	**B**
18	Given two DFA’s M1 and M2” They are equivalent if:	*M1 and M2 has the same* number of states	M1 and M2 has the same number of final states.	*M1 and M2 accepts the* same language i.e. L(M1)= L(M2)	None of these	**C**
19	Given a finite automata M =(Q, ┐, └, qo’ F), If δ maps Q x Σ to 2Q then:	*M is NFA*	*M is DFA*	*M is NFA with ⌟-moves*	None of these	**A**
20	Which of the following phase of compilation process is an optional phase :	Lexical analysis phase	Syntax analysis phase	Code generation phase.	Code optimization phase	**D**
21	Which of the following statement is negation of the statement?	2 is even and -3 is not negative	2 is odd or -3 is not negative	2 is odd and -3 is not negative	2 is even or -3 is not negative	**B**
22	Which of the following are the aspects of the high level languages?	Ease of understanding	Naturalness	portability	All of Above	**D**
23	In a Finite State Machine, M = (Q, |, └,q0, A) transition function δ is a function which maps	Q→ ∑ X Q	Q X ∑ → Q	Q→ A	Q X q0 →∑	**B**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
24	In an NFA, M = (Q, |, └,q0, A) transition function δ is a function which maps	Q X ∑ → Q	Q X ∑ → Q2	Q X ∑ → 2Q	Q X |* → Q	C
24	In an NFA, M = (Q, |, └,q0, A) transition function δ is a function which maps	Q X ∑ → Q	Q X ∑ → Q2	Q X ∑ → 2Q	Q X |* → Q	C
25	By Kleens theorem we prove that	Any language is accepted by FA	Any Regular Language is accepted by FA	Any CFG is accepted by FA	None of these	B
26	For two FAs M1 = (Q1, |, └1,q1, A1) M = M2 = (Q2, |, └2,q2, A2) accepting languages L1 and L2 If we find L1 ∪ L2 then	Only A1 is accepting State	Only A2 is accepting State	We must add new accepting States	Both A1 and A2 are accepting State	D
27	For two FAs M1 = (Q1, |, └1,q1, A1) M = M2 = (Q2, |, └2,q2, A2) accepting languages L1 and L2 If we find L1. L2 then	Only A1 is accepting State	Only A2 is accepting State	We must add new accepting States	Both A1 and A2 are accepting State	B
28	For two FAs M1 = (Q1, |, └1,q1, A1) M = M2 = (Q2, |, └2,q2, A2) accepting languages L1 and L2 If we find L1.L2 then	q1 is starting State	q2 is starting State	We must add new starting State	None of these	A
29	If f(x) = cos(x) and g(x) = x3 , then (f O g)(x) is	(cos(x))3	cos (3x)	x3(cosx)	Cos(x3)	D
30	P → q is logically equivalent to (here ~ is Negation Sign)	~q → p	~p q	~p Λ q	~p V q	D
31	Let the classes of Languages accepted by finite state machines be L1 and the class of Languages represented by regular expressions be L2 then.	L1 is subset of L2	L2 is subset of L1	L1 = L2	L1 ∩ L2 = ϕ	C
32	Tautology is	Always True	Always False	Partially True	None of these	A
33	└* of Finite Automata is	Transition Function	Extended Transition Function	Non Recursive Function	None of these	B
34	Following is an Ambiguous Grammar	S → S + S | S * S | a	S → aSa | Λ	S → aS | Λ	None of these	A
35	CFG stands for	Compile Free Grammar	Content Free Grammar	Context Free Grammar	None of these	C
36	In a Push Down Automata, Which of the following Stack operations can not be performed on a particular move?	PUSH	PEEP	POP	None of these	B
37	Recursive Languages are recognizable by	FA	NFA	NFA -ʌ	Turing Machine	D
38	Minimum length of the string formed by Regular Expression (a+b)* abac*(a+b)+	3	6	4	8	C
39	(a+b)* represents	Null String	All Strings of a's and b's	String starting with a	None of these	B
40	If the language L is Recursive language then L is finite or infinite is	Decidable	Un-decidable	Still an open question	None of these	A
41	Turing Machine can't solve Halting Problem is	True	False	Still an open question	None of these	A
42	If P = NP then	P and NPC are different	NP and NPC are different	P,NP and NPC are same	None of these	D
43	The Coloring Problem is	NP Hard Problem	NP Complete Problem	P Problem	None of these	A
44	Conversion from NFA to DFA is done by	Subset construction	Kleen's Theorem	Minimization Algorithm	Cook's Theorem	A
45	Pumping Lemma is used to decide whether Language L is	Context Sensitive	Context Free	Recursive	Not a Regular	D
46	Which of the following is true?	(a+b)* = (a+b)(a+b)*	(a+b)* = a*b*	(a+b)* = (a*b*)*	None of these	C
47	(1+0)*0 represents	Binary number that are multiples of 2(two).	String starting with 1	String starting with 0	None of these	C
48	CFG : S → SS+ | SS* | a , generates	Prefix Expression	Postfix Expression	Infix Expression	None of these	B
49	CFG: S → aSb | Λ , generates language	(ab)n	ab(a+b)*	(a+b)*(ab)n	a nbn	D
50	The Regular Sets are closed under	Union	Concatenation	Kleen's Closure	All of Above	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
51	The output of a moore machine is	Depend on present state and present input	Depend only on the present state	Depend only on present input	All of these	**B**
52	In a Context Sensitive Grammar, no. of Grammar symbols on the left side of a Production can't be greater than the no. of	Grammar Symbols on right side	Terminals on the right side	Non Terminals on right side	All of these	**D**
53	A given grammar is called ambiguous if	2 or more productions have same non terminal on the left hand side	A derivation tree has more than on associated sentence	Brackets are not present in the grammar	There is a sentence with more than one derivation tree.	**D**
54	Let L be a language recognizable by a Finite Automata, then reverse of the language is a	Regular Language	Context Free Language	Context Sensitive Language	Recursively Enumerable Language	
55	The logic of Pumping Lemma is a good example of	Pigeon – Hole principle	Divide & Conquer Technique	Recursion	Iteration	**A**
56	The no. of Auxiliary memory required for a Push Down Automata to behave as a Finite Automata is	2	1	0	4	
57	A Push Down Automata behaves like a Turing Machine when no. of Auxiliary memory it has is	2	1	0	4	
58	Context Free Grammar is not closed under	Concatenation	Union	Complementation	Kleens	**C**
59	For two regular languages L1 = (a+b)*b and L2 = b(a+b)*, then L1 ∩ L2 is given by	(a+b)*ab	ab(a+b)*	a(a+b)*b	b(a+b)*a	
60	If L is a language recognizable by a Finite Automata then subset of the Language is	Regular Language	Context Free Language	Context Sensitive Language	Recursively Enumerable Language	**B**
61	Which of the following is not accepted by any deterministic Push Down Automata?	String ending in particular alphabet	Strings in which a given symbol is present atleast twice	Even palindromes	None of these	**D**
62	If S be an infinite set and S1 ∪ ┘2 … ∪ = S, then	Atleast one of the set Si is a finite set	Atleast one of the sets Si is an infinite set	Not more than on of the set Si can be finite	None of these	
63	A Grammar that produces more than one Parse tree for same sentence is	Ambiguous	Unambiguous	Regular	None of these	**A**
64	Which of the following Regular Expressions denotes a language comprising all possible strings over the alphabet (a,b)	a*b*	(a+b)*	(ab)+	(a+b*)	**B**
65	An Finite Automata can be considered to be a Turing Machine of finite length	Rewinding capability and unidirectional tape movement	Without rewinding capability and unidirectional tape movement	Rewinding capability and bidirectional tape movement	Without rewinding capability and bidirectional tape movement	**B**
66	Palindromes can't be recognized by any Finite Automata because	FA can't deterministically fix the mid-point	FA can't remember arbitrary large amount of information	Both A and B	None of these	
67	If ∑ = (a,b,c,d,e,f), then no. of string in ∑ of length 4 such that no symbol is used more than once in a string is	60	360	240	720	
68	If L = x*(x + yx), then which of the following is not a legal string within L?	yx	xyx	x	xyxyx	**D**
69	If every string of a language can be determined, whether it is legal or illegal in finite time, the language is called	Decidable	Undecidable	Interpretive	Non-determinstic	

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
70	Can a DFA simulate NFA?	No	Yes	Sometimes	Depends on NFA	A
71	Regular Expression (a+b) denotes the set	{a}	{●, a,b}	{a,b}	{ab}	C
72	Regular Expression (a+b)(a+b) denotes the set	{a,b,ab,aa}	{a,b,ba,bb}	{a,b}	{aa,ab,ba,bb}	D
73	Which of the following regular expression denotes zero or more instances of a or b?	a + b	(ab)*	(a+b)*	a* +b	C
74	The automata is a ____ device and a grammar is a _____ device	generative,cognitive	generative,acceptor	acceptor,cognitive	cognitive, generative	C
75	The Regular sets are closed under	Union	Concatenation	Kleens' Closure	All of these	
76	To accept strings with N characters the Finite Automata contains minimum	N states	N + 1 States	N + 2 States	N -1 States	B
77	Number of Articulation Points in a Rectangle is	0	1	2	4	A
78	For a simple connected graph G with n vertices and n edges(n>2), which of the following statement are true?	G has no cycles	G is a Spanning Tree	G has atleast one cycle	None of these	
79	Finite State Machine can recognize	Any Grammar	Only Context Free Grammar	Any Unambiguous Grammar	Only Regular Grammar	
80	S → aSa | bSb | Λ recognizes	Even Palindrome in (a,b)*	Odd Palindrome (a,b)*	Any Palindrome in (a,b)*	None of these	A
81	Match all items in Group 1 with correct options from those given in Group 2. Group 1 :: P. Regular expression Q. Pushdown automata R. Dataflow analysis S. Register allocation Group 2 :: 1. Syntax analysis 2. Code generation 3. Lexical analysis 4. Code optimization		P-3, Q-1, R-4, S-2	P-3, Q-4, R-1, S-2	P-2, Q-1, R-4, S-3	
82	Find a regular expression for strings of 0's and 1's which have no pairs of consecutive 0's.	(1 + 01)* (0 + Λ)	(0 +10) *	(11 +010) *	None of these	A
83	Which phase detects and ignores the comments?	Lexical	Syntax	Semantic	Code Generator	
84	The set of strings over {a, b} that contain the substring aa.	(ab)*a	(a + b)*aa (a + b)*	a*(a+b)*	None of these	B
85	The Left Linear Grammar is	Regular Grammar	CNF	Not a Regular Grammar	None of these	A
86	Modification of Simple Turing Machine(TM) can be done by	Multi-Tape TM	Multi-Head TM	Universal TM	All of these	D
87	Regular Grammar is	Type – 0	Type – 1	Type – 2	Type – 3	D
88	"Dangling else" is a phenomenon related to	Regular Grammar	Unambiguous Grammar	Ambiguous Grammar	None of these	C
89	For minimization of Finite Automata we find	Equivalent States	Unreachable State	Finite States	None of these	
90	Any Regular Expression is easily converted to	FA	NFA	NFA -Λ	None of these	C
91	Λ -closure (Null Closure) of a state in NFA -Λ contains	The state itself	All states obtained from Λ -transitions from the state	Both A and B	None of these	C
92	(11+101)(1+0)* represents	String starting with 11 and 101	String starting either with 11 or 101	Strings always starting with 11	None of These	B
93	f:R+ → R, f(x) = x2 function is	Both onto and one-to- one	Not onto but one-to-one	onto but not one-to-one	Neither onto nor one-to-one	B
94	f:R+ → R+, f(x) = x2 function is	Both onto and one-to-one	Not onto but one-to-one	onto but not one-to-one	Neither onto nor one-to-one	A
95	If NFA contains n states then by subset construction the equivalent DFA contains maximum of	n 2 states	2n states	n 3 states	2n states	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
96	Recursively Enumerable Grammar falls in	Type – 0	Type – 1	Type – 2	Type – 3	A
97	For simplification of CFG following can be done	Eliminate Null Production	Eliminate not reachable Variables	Eliminate Unit Production	All of these	D
98	In case of Turing Machine(TM) by reading input x, TM	May go to infinite loop	May go to halt-non final state	May go to halt-final state	All of these	
99	Recursively Enumerable Languages are	A proper subset of CFLs	Always recognizable by PDA.	Also called type-0 languages	All of these	C
100	Any language generated by a Unrestricted Grammar is	Regular Language	Recursively Enumerable Language	Context Free Language	None of these	B
101	Which of the following properties of Recursively Enumerable sets are decidable?	Emptiness	Finiteness	Regularity	None of these	
102	Finite State Machine can recognize	Only Context Free Grammar	Only Regular Grammar	Any unambiguous Grammar	Any Grammar	B
103	Which of the following problem is not NP-Hard?	Travelling Salesman Problem	0/1 Knapsack Problem	Graph Coloring	None of these	B
104	In a Grammar : S → aSa | bSb | Λ For recognizingstring “abba” the number of productions used are	2	3	4	5	B
105	Finite Automata do not find application in	Syntax Checking	Recognition of Tokens	Checking string ending with some alphabets	None of these	D
106	“NFA can be simulated by a DFA.” The statement is	True	False	Depends on NFA	Depends on DFA	A
107	Universal Turing Machine influenced the concept of	Stored program computers	Interpretive implementation of programming language	Computability	All of these	
108	Following is not a proof method	Contradiction	Contra-positive	Recurrence	Principle of Mathematical Induction	
109	“Finite Automata is a particular case of NFA”. The statement is	False	True	Partially true	Depends upon NFA	
110	In NFA, a particular state can have	Zero Transition on an alphabet	One Transition on an alphabet	More than One Transition on an alphabet	All of above	C
111	(00+11+01+10)* represents	Strings of odd length	Strings of even length	Strings starting with 00	Strings ending in 10	B
112	For the language (00)*(11)* drawing/designing _____ is easier.	FA	NFA	NFA -Λ	Universal TM	
113	Which of the following is not true with respect to regular expression?	(a+b)* = (b+a)*	(ab)* = a*b*	(ab+ba)* = (ba+ab)*	(a+b)+ = (a+b)(a+b)*	B
114	Bottom Up Parsing have	Shift operation	Reduce Operation	Both A and B	None of these	C
115	With respect to Grammar, Following is the part of actual string of a Language	Variables	Start Symbol	Non Terminal Symbol	Terminal Symbol	D
116	Grammar: S → [S] | {S} | SS | Λ represents	Strings with Λ symbols	Strings with Unbalanced Brackets	Strings with Balanced Brackets	Strings like {SSSS}…	C
117	L={xcxr / x Є (a,b)* } can be recognized by	FA	NFA	NFA -Λ	Push Down Automata	D
118	A function f is called bijection if f is	onto	surjective	Both onto and surjective	None of these	C
119	0(1+0)*0 represents all strings	Starting with 0	Ending in 0	Contains substring 00	Starting with and ending in 0	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
120	Total no. of substrings of the letter "TOC" (without considering NULL) equal to	3	4	5	6	D
1	The depth of a complete binary tree is given by	Dn = n log2n	Dn = n log2n+1	Dn = log2n	Dn = log2n+1	B
2	Which of the following sorting algorithm is of divide-and-conquer type?	Bubble sort	Insertion sort	Quick sort	All of above	C
3	The time factor when determining the efficiency of algorithm is measured by	Counting microseconds	Counting the number of key operations	Counting the number of statements	Counting the kilobytes of algorithm	B
4	The Worst case occur in linear search algorithm when	Item is somewhere in the middle of the array	Item is not in the array at all	Item is the first element	Item is the last element in the array or is not there at all	D
5	The Average case occur in linear search algorithm	When Item is somewhere in the middle of the array	When Item is not in the array at all	When Item is the last element in the array	When Item is the last element in the array or is not there at all	A
6	The complexity of Bubble sort algorithm is	O(n)	O(log n)	O(n2)	O(n log n)	C
7	An algorithm is made up of 2 modules Ml and M2. If order of M1 is f(n) and M2 is g(n) then the order of the algorithm is	max (f (n) ,g (n))	min (f (n) ,g (n))	f (n) + g (n)	f (n) x g (n)	A
8	There are 4 different algorithms AI, A2, A3, A4 to ·solve a given problem with the order log(n), log(log(n)), nlog(n) ,n / log(n) respectively. Which is the best algorithm?	A1	A2	A3	A4	B
9	The time complexity of an algorithm T(n), where n is the input size, is given by T(n) = T(n -1) + (1/n) if n > 1 The order of this algorith	log n	n	n 2	n n	A
10	The running time of an algorithm is given by T(n) = T(n -1) + T(n -2) - T(n -3), if n > 3 n, otherwise.	n	log n	n n	n 2	D
11	Which of the following algorithms solves the all-pair shortest path problem?	Dijkstra's algorithm	Floyd's algorithm	Prim's algorithm	Warshall's algorithm	B
12	For merging two sorted lists of sizes m and n into a sorted list of size m + n, we require comparisons of	O(m)	O(n)	O(m + n)	O(log(m) + log(n))	C
13	Which of the following algorithm design technique is used in the quick sort algorithm?	Dynamic programming	Backtracking	Divide and conquer	Greedy method	C
14	The correct matching for the following pairs is (A) 0/1 Knapsack (B) Quick sort (C) Minimum weight (D) Connected Components (1) Greedy (2) Depth-first search (3) Dynamic programming (4) Divide and conquer	A-2 , B-4 , C-1, D-3	A-3 , B-4 , C-l , D-2	A-3 , B-4 , C-2 , D-1	A-4 , B-1 , C-2 , D-3	B
15	In the worst case, the number of comparisons needed to search a single linked list of length n for a given element is	log(n)	n/2	log(n/2)-1	n	D
16	For the bubble sort algorithm, what is the time complexity of the best/worst case? (assume that the computation stops as soon as no more swaps in one pass)	best case: O(n) worst case: O(n*n)	best case: O(n) worst case: O(n*log(n))	best case: O(1) worst case: O(n)	best case: O(n*log(n)) worst case: O(n*n)	A
17	When we say the order of a tree is M, we mean	Every non-leaf node must have M subtrees	Every non-leaf node must have M keys	Every non-leaf node can have at most M subtrees	The Height of the tree is M.	C
18	Worst case Time Complexity of Merge Sort is	O(n2)	O(n log(n))	O(2 log(n))	O(n2 log(n))	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
19	The number of edges in a Minimum Spanning Tree of a connected Graph G with n vertices is	n log(n)	n!	n*(n-1)/2	n -1	
20	Time Complexity of Tower of Hanoi Problem (Recursive) with n disks is	n 2	2n	3n	n 3	B
21	Total Degree of a Triangle is	6	4	3	2	A
22	Travelling Salesman Problem is	NP Problem	P Problem	Halting Problem	All of Above	A
22	For the Quick sort algorithm, what is the time complexity of the best/worst case?	best case: O(log(n)) worst case: O(n2)	best case: O(n2) worst case: O(n log(n))	best case: O(n log(n)) worst case: O(n2)	best case: O(n2) worst case: O(n2log(n))	C
23	A Bi-connected Graph Certainly does not contain any	Cycle	Path	Parallel Edges	Cut Vertex	D
24	N-Queens Problem can be solved easily by	Dynamic Programming	Backtracking Method	Greedy Method	Divide and Conquer Method.	B
25	Max Heap Tree has following Property.	Right Child > Parent	Both Children > Parent	Both Children < Parent	None of above	C
26	Heap Tree is	Complete Binary Tree	Cyclic Graph	3-way Search Tree	Forest	A
27	Dynamic Programming Method is not suitable to solve	0/1 Knapsack Problem	Making Change Problem	Binomial Co-efficient	Fractional Knapsack Problem	D
28	Krushkal's Algorithm uses	Greedy Method	Divide and Conquer Method.	Dynamic Programming	Branch & Bound Method	A
29	NP Problem is	Polynomial Problem	Non Deterministic Polynomial Problem	Easy to Solve problem	All of Above	B
30	For a same problem If Time Complexity of Recursive algorithm is x and Time Complexity of Iterative algorithm is y, then	x < y	x > y	x = y	can not be said	B
31	for(i=1 ; i<=n ; i++) printf("**") ; The above C code has Time Complexity of	1	log(n)	n log(n)	N	D
32	Binary Search Method has Worst Case Time Complexity of	2n	nlog(n)	log(n)	n*n	C
33	The number of ways to multiply 4 Matrices in a Chained Matrix Multiplication	2	3	4	5	
34	Worst case Time Complexity of Linear Search is	O(n)	O(log(n))	O(1)	O(nlog(n))	A
35	Breadth First Search method uses	Stack	Queue	Hash Table	None of these	B
36	Minimum no. of states to Search/Recognize string "nano" with Finite Automata is	2	3	4	5	C
37	Following is a NP Problem related to Graph	To find Longest Path	To find Shortest Path	To find Minimum Spanning Tree	To find a Cycle	
38	The "Principle of Optimality" is used in	Greedy Method	Backtracking	Dynamic Programming	Branch & Bound	A
39	Worst case Time Complexity of Multiplication of two n X n Matrix is	n 2	n 2log(n)	n log(n)	n 3	D
40	Worst case Time Complexity of Addition of two n X n Matrix is	n 2	n 2log(n)	n log(n)	n 3	A
41	The running time of the following sorting algorithm depends on whether the partitioning is balanced or unbalanced	Insertion sort	Selection Sort	Quick Sort	Merge Sort	C
42	The average case complexity of Insertion Sort is	O(2n)	O(n2)	O(n3)	O(2n)	B
43	The spanning tree of connected graph with 10 vertices contains	9 edges	10 edges	11 edges	11 vertices	
44	Worst case Time Complexity of Heap Sort Algorithm is	O(log(n))2	O(n)	O(n2)	O(nlog(n))	D
45	In a heap tree bottom level should be filled	From left to right.	From right to left.	Completely.	None of these	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
46	The height of heap tree of N data is	O(N)	O(N log(N))	O(log(N))	O(2N)	B
47	A sorted array in ascending order is	MAX Heap	MAX Heap	Not a Heap Tree	None of these	
48	Which of the following algorithm do not have a time complexity of O(n2)	Bubble Sort	Shell Sort	Radix Sort	Quick Sort	C
49	Consider the Array: 26, 35, 11, 49, 54, 30, 80. How array will look like after 2 (two) iterations of Bubble Sort?	26, 11, 35, 49, 54, 30, 80	26, 11, 35, 49, 30, 54, 80	11, 26, 35, 30, 49, 54, 80	None of these	A
50	In a Selection Sort of n elements, how many times is the swap function called in the complete execution of the algorithm?	1	n-1	n log(n)	n 2	D
51	Which of the following sorts have a O(n log(n)) Worst case performance?	Insertion Sort	Quick Sort	Heap Sort	None of these	C
52	An hash table with chaining as a collision resolution technique degenerates to a	Stack	Queue	Linked List	Tree	
53	Consider the following statements. I. An algorithm is a no. of steps to be performed to solve a problem. II. To a given problem there may be more than one algoritm.	Only I is correct	Only II is correct	Both I and II are false	Both I and II are correct	D
54	Analyzing of an algorithm involves	Evaluating the complexity only	Validating the algorithm Only	Both Validating the algorithm and Evaluating the Complexity	None of these	C
55	The running time of an algorithm means	No. of Primitive	Time taken on a Standard Computer to execute the program	Time taken by the algorithm on a particular input size.	None of these	C
56	f(n) = θ (g(n)) is	g(n) is asymptotic upper bound for f(n)	g(n) is asymptotic tight bound for f(n)	g(n) is asymptotic lower bound for f(n)	None of these	B
57	f(n) = Ω (g(n)) is	g(n) is asymptotic upper bound for f(n)	g(n) is asymptotic tight bound for f(n)	g(n) is asymptotic lower bound for f(n)	None of these	C
58	f(n) = O (g(n)) is	g(n) is asymptotic upper bound for f(n)	g(n) is asymptotic tight bound for f(n)	g(n) is asymptotic lower bound for f(n)	None of these	A
59	f(n) = θ (g(n)) implies	f(n) = O (g(n)) only	f(n) = Ω (g(n)) only	f(n) = O (g(n)) and f(n) = Ω (g(n))	None of these	C
60	T(n) = 2 T(n/2) + k.n , where k is constant, then T(n) is equal to	O(n log(n))	O(log(n))	O(n)	O(n2)	A
61	Time Complexity of Recursive Fibonacci algorithm is	O(n2)	O(n3)	O(n2 log(n))	O(Cn), where C is a constant	D
62	Assume the input array is nearly sorted. Then performance of Quick sort is	Better than Average case	Worst than Average case	Same as in Average case	None of these	C
63	At least how many comparisons are required for merging two sorted lists of n elements each?	2n -1	n-1	2n+1	n	A
64	Which of the following data structure may be used to aid implementation of radix sort?	Stack	Heap	Binary Search Tree	Queue	D
65	What is the preferred form of representation of Dense graph?	Adjacency Matrix	Adjacency List	Incidence Matrix	None of these	A
66	What is the running time of an efficient algorithm to find an Euler Tour in a graph if one exists?	O(|V|)	O(|E|)	O(|V| |E|)	O(|V|2)	B
67	Following Problem(s) is NP Complete	Vertex Cover	SAT(Satisfiable)	K-Colouring	All of these	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
68	Graphs are represented using	Adjacency tree	Adjacency linked list	Adjacency Graph	Adjacency Queue	B
69	Infinite recursion leads to	Overflow of run-time stack	Underflow of registers usage	Overflow of I/O cycles	Underflow of run-time stack	A
70	The running time for creating a heap of size n is	O (n)	O (log n)	O (n log n)	O (n2)	A
71	Recursive procedures are implemented by using ____ data structure.	Queues	Stacks	Linked Lists	Strings	B
72	A technique for direct search is	Binary Search	Linear Search	Tree Search	Hashing	D
73	For an undirected graph with n vertices and e edges, the sum of the degree of each vertex is equal to	2n	(2n-1)/2	2e	e 2 /2	
74	Which of the following sorting methods would be most suitable for sorting a list which is almost sorted	Bubble Sort	Selection Sort	Quick Sort	Merge Sort	A
75	A BST is traversed in the following order recursively: Right, root, left. The output sequence will be in	Ascending order	Descending order	Bitomic sequence	No specific order	B
76	Quick sort is also known as	merge sort	heap sort	None of these	bubble sort	C
77	An algorithm is made up of two independent time complexities f (n) and g (n). Then the complexities of the algorithm is in the order of	*f(n) x g(n)*	*Max (f(n),g(n))*	*Min (f(n),g(n))*	*f(n) + g(n)*	B
78	The goal of hashing is to produce a search that takes	*O(1) time*	*O(n2) time*	*O(log n) time*	*O(n log n) time*	A
79	The time required to find shortest path in a graph with n vertices and e edges is	O(e)	O(n)	O(e2)	O(n2)	D
80	Search tables used by compilers for efficient searching generally use	Hash Tables	Linear lists of Records	Binary Search Tables	Binary Search Trees	A
81	For merging two sorted lists of size m and n into a sorted size of m+n, we require comparisons of	O(m)	O(n)	O(m+n)	O(log(m) + log(n))	
82	The running time T(n) is given as T(n) = c + T(n-1) , if n >1 = d , if n<=1 The order of the algorithm is	n 2	n	n 3	n n	A
83	Which of the following shows the correct relationship?	O(nlog(n)) < O(n)	O(2n) < O(n2)	O(n3) < O(n2log(n))	O(log(n)) < O(n)	D
84	Breadth First Traversal (BFS) is a method to traverse	Graph using shortest path	All successors of a visited node before any successors of any of those successors	A single path of the graph as far as it can go	None of these	B
85	The way a card game player arranges his cards as he picks them up one by one , is an example of	Bubble Sort	Selection Sort	Insertion Sort	Merge Sort	C
86	The concept of Order (Big O) is important because	It can be used to decide the best algorithm that solves a given problem	It determine the Maximum space occupied by the algorithm	It is the lower bound of the growth rate of the algorithm	None of these	A
87	The common implementation of a heap is	Array	Linked List	Multilinked Structure	Doubly Linked List	A
88	The depth-first search	Uses a queue	Uses a stack	Searches a tree	Searches a linked list	B
89	For NP-Complete problem	Several Polynomial time algorithms are available.	Polynomial Time algorithms are not exist, hence can not be discovered	No Polynomial Time algorithm is discovered yet	None of Above	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
90	If P(n) = n2 then what is correct?	P(n) = n3	P(n) = n4	P(n) = n2	All of the above	
91	An algorithm	Is a finite set of instructions	Any well defined computational procedure	Zero or more quantities are externally supplied and at least one quantity is produced	All are correct	A
92	Which of the following is type of amortized analysis?	Aggregate Method	Accounting Method	Potential Method	All of these	D
93	Divide and Conquer is a general design paradigm does not consist the following part	Divide	Recursion	Iteration	Conquer	D
94	f(n) =n2 , g(n) = n3 ,then which of the following is not correct?	g(n) = ┐(n)	g(n) = O(n2)	g(n) = O(n3)	g(n) = ┐(f(n))	B
95	In the division method for creating hash function, which of the following hash table size is appropriate?	2	4	7	8	C
96	Greedy Algorithms have following characteristic.	Objective function	Feasible solution	Selection function	All of these	D
97	Divide and Conquer method is not suitable to solve Problem like	Merge Sort	Finding Minimum Spanning	Exponentiation	Binary Search	D
98	"Chained Matrix Multiplication" can be solved by	Dynamic Programming	Greedy Method	Branch & Bound	Backtracking	A
99	"Longest Common Subsequence" Problem can be solved by	Greedy Method	Dynamic Progamming	Backtracking	None of these	B
100	What is the minimum number of Stacks of size n required to implement a Queue of size n?	1	2	3	4	B
101	Maximum number of edges in a n node graph is	n(n-1)/2	n 2	n 2 log(n)	n+1	A
102	Level Ordered Traversal of a Rooted Tree can be done by starting from the root and performing	In-order traversal	Preorder traversal	Breadth First Search	Depth First Search	C
103	Which of the following Pairs of traversals define Binary Tree uniquely?	Pre-order and Post- order	In-order and Pre-order	Level –order and Post-order	None of these	B
104	The Time Complexity of finding Transitive Closure of a Binary Relation on a set of n elemtns is known to be	O (n3)	O (n)	O (n2 log n)	O (n2)	A
105	In a binary max heap containing n elements, the smallest element can be found in	θ (1)	θ (n)	θ (log(n))	θ (nlog(n))	B
106	Which of the following sorting algorithm has minimum worst case time complexity?	Selection Sort	Bubble Sort	Quick Sort	Merge Sort	D
107	Which of the following is not a Graph Traversal technique?	In-order Traversal	BFS	DFS	None of These	A
108	Greedy algorithms have following characteristics	Objective function	Feasible solution	Selection Function	All of these	D
109	Divide & Conquer can't solve Problems like	Merge Sort	Exponentiation	Minimum Spanning Tree	Binary Search	B
110	Chained Matrix Multiplication problem can be solved by	Greedy Method	Dynamic Programming	Backtracking	None of these	B
111	Longest Common Subsequence Problem can be solved by	Greedy Method	Divide & Conquer	Dynamic Programming	None of these	C
112	If there is an NP-Complete Language L whose Complement is in NP, Then the Complement of any Language in NP is in	P	NP	Both A and B	None of these	B
113	Both P and NP are closed under the operation of	Union	Intersection	Concatenation	Kleene's	A
114	Binary Search method uses as input	Unsorted Array	Linear Linked List	Sorted Array	Hash Table	C
115	Which of the method is used to solve Recurrences?	Substitution Method	Recursive Tree Method	Master Method	All of these	C
116	Applying Krushkal's algorithm to find Minimum Spanning Tree is more suitable for	Sparse Matrix	Dense Graph	Sparse Graph	None of these	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
117	Applying Prim's algorithm to find Minimum Spanning Tree is more suitable for	Sparse Matrix	Dense Graph	Sparse Graph	None of these	B
118	Algorithm analysis is useful for finding	Space Complexity	Time Complexity	Correctness	All of these	D
119	Which of the following is not the required condition for binary search algorithm?	There must be mechanism to delete or insert elements in the list	there should be the direct access to the middle element in any sublist	The list must be sorted	None of these	A
120	In Hamiltonian Cycle for n vertices, we	Can visit to same vertex two times	Can't visit same vertex more	Can omit one vertex	None of these	A
121	"Preconditioning" term is used with	Linked List	Dequeue	Graph	Priority Queue	
122	Min-max Principle is used for	Gaming	Finding Minimum Spanning Tree	Finding Non Leaf Node	Divide and Conquer	A
123	The approach used by linear search is	Greedy	Divide & Conquer	Probabilistic	Brute-Force	D
124	One NP-Complete Problem can be reduced to another problem of NP in What time?	Polynomial Time	Exponential Time	Linear Time	Logarithmic Time	A
125	Which of the following functions are often referred as "exponential growth function"?	2n, log(n)	2n, n!	n!, nlog(n)	n!, log(n)	
126	Branch & Bound Technique uses	Lower Bound	Upper Bound	Both Lower Bound & Upper Bound	None of these	C
127	Simple Merge merges	Two sorted array	Two unsorted array	Two Trees	None of these	A
128	In Dynamic Programming after table is created of m rows and n columns, finding a particular solution takes order of	log(m)	m*n	m+n	n 2	B
129	Feasible Solution in Greedy Method is	Satisfying constraints	Always optimal	Not a solution	None of these	A
130	Which of the following is not a property of algorithm?	Finiteness	Effectiveness	Unambiguousness	None of these	D
1	Which of the following is true?	C is middle level language	C has no I/O statements	C supports bit-wise operators	All of the above	D
2	Which of the C operator finds the remainder of integer division?	/	%	*	None of the above	B
3	Which of the following symbol is permitted in C variable name?	- (hyphen)	_ (underscore)	& (ampersand)	| (pipe)	B
4	What is true for the following C statement? extern int x;	It is definition	It is function declaration	it is declaration	It is error	B
5	Which of the following is character constant in C?	'1'	"1"	1	None of the above	A
6	The size of long double in ANSI C is	32 bits	64 bits	128 bits	128 bits	A
7	Which of the following is not valid?	long int	long float	long double	All are correct	B
8	Which is correct format specifier for long integer?	%ld	%li	Both A and B	None of the above	C
9	The sizeof operator gives the size of data in	bits	bytes	words	double words	B
10	Which of the following is not a logical operator in C?	!=	!	&&	||	A
11	Which of the following is not an unary operator in C?	sizeof	!	~	bitwise &	A
12	Trigraph character in C starts with	??	$$	##	None of the above	A
13	Which is the best data type for 8-bit integer?	short int	unsigned short int	unsigned char	char	A
14	The range of 'unsigned char' in C is	0 to 128	0 to 255	-128 to +127	None of the above	B
15	What is the value of C expression 16 >> 2?	4	8	16	32	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
16	Which of the following is not a valid floating point constant?	-4.5	78	3.15	All are valid	B
17	Which of the following character constant is used for bell?	'\f'	'\r'	'\a'	None of the above	C
18	Which of the following is not a valid variable name in C?	max1	max$	max_1	max_high	B
19	Value of which type of C variable can be changed by external source?	auto	extern	static	volatile	B
20	What is the value of x after executing following statement? x = (a=5, b=10, a+b);	15	10	5	None of the above	D
21	What is the output of printf("%d",'A'); ?	Character A	ASCII value of A	error	None of the above	B
22	Which loop executes at least once?	for	while	do-while	All	C
23	Which of the following loop is an exit control loop?	for	while	do-while	All	C
24	Which of the C feature indicates it is middle level language?	structure	union	bit-fields	bitwise operators	D
25	Which of the following is not C operator?	sizeof	. (dot)	, (comma)	All are operators	A
26	C is ..... Langauge.	Procedural	Object oriented	Object based	None of the above	A
27	The array index in C starts from	0	1	0 or 1	User defined	A
28	For C array, int a[5] = {23,45}, the value of a[3] is	23	45	0	Can't say	C
29	..... Operator is used to access the structure member in C.	=	. (dot)	()	None of the above	B
30	Which C function is appropriate for inputting a string?	gets()	getch()	getche()	All	A
31	C uses ..... Statement to separate the cases in switch?	; (semicolon)	continue	break	newline	C
32	Which of the following is an example of infinite loop?	for(; ;) { }	while(1) { }	Both A and B	None of the above	C
33	A string always ends with	$	Null ('\0') character	#	?	B
34	Which of the following operation can not be performed on pointer?	adding two pointers	adding an integer to pointer	assigning pointer to same type	All are possible	D
35	Which of the following is correct pointer declaration in C?	int pointer a;	int *a;	*int a;	int a*;	B
36	if function does not return value, its return type is	int	none	void	auto	C
37	Which of the following variable type is used to retain value even after function is over?	local	auto	static	All of the above	C
38	Which of the variable type is accessible to all the functions in a file?	local	register	static	global	D
39	The logical end of C program is	End of main()	End of last function	depends on input	None of the above	A
40	Which of the following C data type allocates memory in bits?	structure	union	bit-fields	array	A
41	Dynamic memory allocation in C means	Allocating memory at run time	Allocating memory at compile time	Both A and B	None of the above	A
42	A structure in C is	group of variables of same types	group of variables of different types	group of integer types	None of the above	B
43	Which of the following operator is used to access structure member if pointer to structure is used?	ampersand (&)	dot (.)	arrow (->)	Any of the above	C
44	The && is ..... Operator.	Logical	Relational	Bit-wise	Arithmetic	A
45	What is true regarding C string?	Character array	Ends with NULL	Stored as ASCII values	All of the above	D
46	Writing a prototype of a function is same as	declaring a function	defining a function	calling a function	All of the above	B
47	The function header includes	return type	name of function	parameters	All of the above	D
48	An union in C is	a group of variables	a variable	same as structure	None of the above	A
49	Which of the following represents the address of variable x?	*x	%x	&x	!x	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
50	If x is declared as an integer pointer, which of the following incorrect?	x = &a;	x = NULL;	x = 0;	x = 3456;	C
51	Assume that p1 and p2 are structure variables of same type, which of the following is valid operation?	p1 = p2	p1 = = p2	p1 != p2	All are valid	C
52	Which of the following variable type is not accessible to other files?	global	static global	Both A and B	None of the above	B
53	Which of the following variable has life same as local variable?	global	static	register	None of the above	B
54	Which is true for a function in C?	It must return a value	It must have at least one parameter	Both A and B	None of the above	D
55	Assume that a string is defined in C with name str, which of the following is valid operation?	str = "Hello";	strcpy(str, "Hello");	str + "Hello";	All are valid	B
56	A pointer variable stores	value like simple variable	address of another variable	Both A and B	None of the above	B
57	What is true regarding following declaration? int **p;	It is pointer to pointer	It can store address of an integer variable	It can store address of a pointer to an integer	Both A and C	D
58	Which of the following specifier is used in C to read number in Hex?	%u	%o	%x	%h	C
59	By default, the number is ..... in given field width.	left-justified	right-justified	centre-justified	User defined	A
60	Which of the following is not a C keyword?	main	auto	int	register	A
61	What is true regarding switch statement?	All cases must have break	use any variable with switch	default case must be present	None of the above	D
62	Which one of the following C statement differs from others in effect?	x++	x += 1	x = +1	x = x + 1	C
63	Which of the following operation is not valid for float data type?	%=	&&	<=	*=	A
64	Why type casting is used?	to convert data type	to create new data type	to convert data to desired form for use in expression	All of the above	A
65	In which order, following C expression is evaluated? z = x - y + c / 2 * e;	- + / * =	/ * - + =	+ - * / =	* / + - =	B
66	Right side expression of || operator is not evaluated, if the left side expression is	true	false	always evaluated	None of the above	C
67	Right side expression of && operator is not evaluated, if the left side expression is	true	false	always evaluated	None of the above	B
68	What is similarity between structure and enum in C?	Both defines new values	both define new pointers	Both defines new data types	None of the above	C
69	Which of the following statement is correct?	bit-fields are allowed inside structure only	bit-fields are allowed inside union only	Both A and B	None of the above	C
70	if a structure inside structure is used, it is called	nested structure	recursive structure	self-referential structure	Any of the above	A
71	If a structure contains variable of itself as member, then it is called	nested structure	recursive structure	self-referential structure	Any of the above	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
72	Which function is used to deallocate the memory?	delete()	remove()	deallocate()	free()	D
73	Consider following C statements int *p; p = (???) malloc(100); The ??? Is replaced with which of the following?	int	int *	int **	int &	B
74	malloc() allocates memory in terms of ……	words	bits	bytes	double words	C
75	How many bytes are used by near pointer in DOS?	2	4	8	16	A
76	How many bytes are used by far pointer in DOS?	2	4	8	16	B
77	If p is an pointer to integer, which of the following increments the value of variable pointed by p?	(++*ptr)	(*ptr++)	Both A and B	None of the above	A
78	Consider the following C statements. int y=50; const int x=y++; printf("%d\n", x); What is output?	50	51	error	None of the above	A
79	Consider the following C statements. int y=50; const int x=++y; printf("%d\n", x); What is output?	50	51	error	None of the above	B
80	If str1 and str2 are same, what is return value of strcmp(str1,str2);	1	0	-1	Error	B
81	If str1 lexically comes before str2, what is return value of strcmp(str1,str2);	1	0	-1	Error	
82	What will be output of following? for(i=0;i<10;i++); printf("%d ",i);	0 1 2 3 4 5 6 7 8 9	10	Error	None of the above	D
83	What will be output of following? for(i=0;i<10;); printf("%d ",i);	0 1 2 3 4 5 6 7 8 9	10	0 0 0 0 0 0 0 0 0 0	No output as printf never execute	D
84	What would be output of following? int x = 5; If (x = 5) printf("Hello"); else printf("Fine");	Hello	Fine	Compile error	HelloFine	C
85	if function max() finds the maximum of two numbers, which of the following determines maximum of three numbers?	max(x, max(y,z));	max(max(x,y),z);	max(max(x,y),max(y,z));	All of the above	D
86	For the following function prototype, which of the call is correct? void exch(int *, int *);	exch(x,y);	exch(&x,&y);	exch();	exch(5,y);	B
87	What is the meaning of following statement? int *ptr(a,b);	ptr is a function returning an integer	ptr is a pointer to function returning an integer	ptr is a function returning a pointer to integer	None of the above	C
88	What would be the output of following statements? char str[] = "Hello\0World"; printf("%s",str);	Hello	Hello World	Hello World	Hello World	A
89	Which of the following prints '\n'?	printf("\n");	printf("\\n");	printf("\n\");	printf("/n");	B
90	What would be the output of following statements? char str[] = "\0World"; printf("%s",strlen(str));	7	5	6	0	
91	The main() in C is	reserve word	library function	user defined function	All of the above	C
92	In C expression (5/10)*(f - 32), if f = 50, what would be value of expression?	0	9	18	None of the above	B
93	Which of the following is true regarding break statement?	used to break block	used to break the loop	used to return from function	None of the above	A
94	The life of local variable declared in main() is same as	local variable	static variable	global variable	None of the above	A
95	Which of the following is true for C array?	All the elements are of same type	Array name is an address of first element	Array index starts from 0	All of the above	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
96	Which of the following declaration is true for "array of 5 pointers to char"	char **ptr[5];	char *ptr[5];	char (*ptr)[5];	None of the above	C
97	When an array is passed as argument to function, what is actually passed?	All the elements	only first element	address of first element	None of the above	C
98	How many bytes are occupied in memory by following string? char str[]="Computer";	8	9	10	11	A
99	if for a scanf("%s",str); input is "Hello World", the str stores	Hello	Hello World	World	NULL	A
100	How can we declare generic pointer in C?	Not possible	generic *ptr;	NULL *ptr;	void *ptr;	D
101	If a pointer points to memory location which deallocated, it is called	dangling pointer	dealign pointer	null pointer	nomemory pointer	A
102	Consider the following C statements. enum COLOR {RED, BLACK, GREEN, BLUE}; What would be the value of GREEN?	0	1	2	3	C
103	Which of the following is best to define multiple named constants in C?	#define	const	enum	Any of the above	C
104	Which of the following results into an error in C?	Defining a local and a global variables with same name	Defining a local variable inside a function with same name as function argument	Defining a global variable as static	Defining a function argument as register	
105	If a variable is declared inside a loop, its scope is	file	program	function	block	C
106	For following C expression, what is incorrect statement? (x > 5) || (y = = 4)	if x is 6, (y = = 4) is not evaluated	if x is 4, (y = = 4) is evaluated	Both (x > 5) and (y = = 4) are evaluated always	All are correct	C
107	For following C expression, what is correct statement? (x > 5) && (y = = 4)	if x is 6, (y = = 4) is not evaluated	if x is 4, (y = = 4) is not evaluated	Both parts of && are always evaluated	All are incorrect	B
108	For C expression x = y = 10; which of the following order is true?	x = y, y = 10	y = 10, x = y	x = 10, y = x	None of the above	B
109	Which of the following is not valid for C union?	It is a variable	occupies memory equal to size of its largest member	It is a group of variable	None of the above	A
110	int a[] = {1,2,3,4,5}; for(i=0;i<4;i++) printf("%d ",a[++i]); What would be output of above?	1 2 3 4	2 4	1 3 5	1 2 3 4 5	B
111	int a[] = {1,2,3,4,5}; for(i=0;i<4;i++) printf("%d ",a[i++]); What would be output of above?	1 2 3 4	1 3 5	1 3	1 2 3 4 5	C
112	What is the total size of all the command line arguments including spaces?	64	128	256	Operating system dependent	D
113	The command line argument 'argc' means	argument control	argument count	argument counter	None of the above	C
114	Consider the following C statements. int x = 10; int *p = &x; Which of the following increments x by 1?	x = *p + 1;	*p = *p + 1;	(*p)++;	All of the above	D
115	What the following code performs? int count = 0; for(i=0;i<10;i++) if(a[i]%2) count++;	counts from 0 to 9	counts odd values in array	counts even values in array	counts zero values in array	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer

116	What the following code performs?
	int count = 0;
	for(i=0;i<10;i++)
	if(!(a[i]%2)) count++;
		counts from 0 to 9	counts odd values in array	counts even values in array	counts zero values in array	B

117	Assume that p and q are pointers to integers, what will the value of p - q ?	Another pointer	An integer	Not valid operation	Can't say	D
118	Consider the following C statements. int a[10], *p; p = a; The expression p+3 points to ..... Element.	a[0]	a[3]	a[6]	a[9]	B
119	Consider the following C statements. int a[10]; int *p; p = a; The last statement p = a; is same as	p = a[0];	p = &a;	p = &a[0];	None of the above	C
120	Consider the following C structure. struct { int r_no; char name[20]; } s; Which of the following is true?	It does not use tag	It is not possible to define more variable of this structure at other place in program	It defines one structure variable	All of the above	
121	Consider the following C structure. struct std { int r_no; char name[20]; } s; What is output of sizeof(struct std) if integer is of 32 bits?	20	22	24	26	C
122	If a structure needs 4 bytes and ptr is a pointer to that structure, the expression ptr = ptr + 4; internally incremented by ..... Bytes.	4	8	12	16	D
123	If p is a pointer to an integer, p = p + 2; is same as	p = p + 2*2;	p = p + 2*4;	p = p + 2 * sizeof(int);	All of the above	
124	If p points to start of a string and q points to '\0' at the end of the string, p - q gives	length of a string	number of character in string	number of bytes occupied	All of the above	D
125	Consider the following macro definition. #define SQR(x) (x*x) The z = SQR(5+2) results into	17	49	25	Invalid	D
126	126 Consider the following macro definition. #define SQR(x) ((x)*(x)) The z = SQR(5+2) results into	17	49	25	Invalid	D
127	The C statements starting with # are processed at	run time	during compilation	before compilation	None of the above	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer

128	Consider the following C statements.
	for(i=0;i<3;i++) {
	printf("%d",i);
	break;
	printf("%d",i);
	}
	What would be the output of above?
		0 1 2	0 0 1 1 2 2	Error	None of the above	D

129	Consider the following C statements.
	for(i=0;i<5;i++) {
	if(i = = 3)
	continue;
	printf("%d",i);
	}
	What would be the output of above?
		0 1 2	0 1 2 4	0 1 2 3 4	None of the above	D

130	How many bytes are allocated to variable of following union?
	union data {
	int x;
	float y;
	double z;
	};
		2	4	8	None of the above	C

131	Consider the following C statements.
	for(i=0;i<5;i++) {
	if(i = 3)
	continue;
	printf("%d",i);
	}
	What would be the output of above?
		0 1 2 4	0 1 2 3 4	No output	Error	D

132	Consider the following C statements. int a[5], sum = 0;
	for(i=0;i<5;i++) {
	if(!(a[i]%2))
	continue;
	sum += a[i];
	}
		sum of odd numbers of a[]	sum of even numbers of a[]	sum of all the numbers of a[]	None of the above	C

133	Which of the following causes "unreachable statements" error in C?	unconditional break	unconditional continue	unconditional return in middle of function body	All of the above	B
134	if integers sum = 25 and n = 10, What would be the results of avg = sum/n; and avg = (float)sum/n; if avg is float?	2.0 and 2.5	2 and 2	2 and 2.5	2.5 and 2.5	A
135	Consider the following C statements. int a[5], sum=0; for(i=0;i<5;i++) { if((a[i]%2)) continue; sum += a[i]; } What would be output of above code?	sum of odd numbers of a[]	sum of even numbers of a[]	sum of all the numbers of a[]	None of the above	B
136	For the following C statement, what will be the value of x in hex? x = -2<< 2;	0xFFF8	0xFFFF	0x0000	Error	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer

137	Consider the following C code?
	union data {
	int x;
	char s[2];
	} u;
	u.s[0] = 5; u.s[1] = 3;
	printf("%d %d %d",u.x);
	What would be the output?
		53	35	573	Error	

138	Consider the following C code?
	union data {
	int x;
	int y;
	} u;
	u.x = 10; u.y = 20;
	printf("%d %d %d",u.x);
	What would be the output?
		10	20	30	Error	

139	Consider the following C statements.
	struct value
	{
	int b1:1;
	int b2:4;
	int b3:4;
	} bit;
	printf("%d\n", sizeof(bit));
	What would be the output?
		1	2	4	8	**B**

140	Consider the following C statements.
	int x = 10;
	printf("%d %d %d",x++,x,++x);
	What would be the output?
		10,11,12	10,11,11	11,11,12	11,11,11	**D**

141	Consider the following C statements. enum month {JAN=5,FEB,MAR=8,APR,MAY}; printf("%d %d %d",FEB,MAR,APR); What would be the output?	6 8 9	0 8 1	0 8 9	None of the above	**A**
142	Consider the following C statements. int y=-5; printf("%x",y); What would be the output?	FFFF	FFFB	FFFE	Error	
143	Consider the following C statements. struct data { int d:1; }; struct data x = {1}; printf("%d\n", x.d); What would be the output?	0	1	-1	Error	

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
144	Consider the following C statements. enum month {JAN=5,FEB,MAR=8,APR,MAY}; printf("%d %d %d",++FEB,MAR,APR); What would be the output?	6 8 9	0 8 1	0 8 9	Error	D
145	Consider the following C statements. enum COLOR {RED, BLACK, GREEN, BLUE}; enum COLOR c; Which of the following is incorrect?	c = BLACK;	c = 2;	c = (enum COLOR)2;	All of the above	D

146	void fun(int n) {
	printf("%d", n);
	n = - 1;
	if(n > 0)
	fun(n);
	}
	What would be output of above function when called as fun(5)?
		5 4 3 2 1	1 2 3 4 5	5 4 3 2 1 0	None of the above	D

147	What would be output of following C code?
	int x = 10;
	void main()
	{
	int x = 20;
	{
	int x = 30;
	printf("%d ",x);
	}
	printf("%d ",x);
		10 20	20 30	30 20	Error	C

148	What would be output of following C code?
	int x = 10;
	void main()
	{
	int x = 20;
	{
	int x = 30;
	printf("%d ",x);
	}
	f();
	printf("%d ",x);
	}
	void f() {
	printf("%d", x);
		10 20 30	30 10 20	30 20 10	Error	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer

149	What would be output of following C program?
	void main()
	{
	int i;
	for(i=0;i<5;i++) fun();
	}
	void fun() {
	static int x = 10;
	printf("%d ",x);
	x += 2;
	}
		10 10 10 10 10	10 12 14 16 18	10 11 12 13 14	Error	B

150	What would be output of following C program?
	int y = 3;
	void main()
	{
	int i;
	for(i=0;i<5;i++) fun();
	}
	void fun() {
	int y = 5;
	static int x = 10;
	printf("%d ",x);
	x += y;
	}
		10 10 10 10 10	10 13 16 19 22	10 15 20 25 30	Error	C

1	Data structure means	logical relation among data items	how data are stored in memory	Both A and B	None of the above	C
2	Which of the following is a primitive data structure?	an integer	a structure variable in C	an array	All of the above	A
3	How an integer is stored in computer memory?	mantissa form	sign-magnitude form	Both A and B	None of the above	B
4	Which of the following is true for an array?	primitive data structure	non-linear data structure	uses sequential allocation	All of the above	C
5	Which of the following is linear data structure?	Array	Stack	Linked list	All of the above	D
6	Windows explorer is an example of ..... data structure?	Linked list	Tree	Graph	Stack	B
7	Which of the following defines preorder sequence?	left-root-right	left-right-root	root-left-right	None of the above	C
8	Which search method compares data elements one-by-one in sequence?	Linear	Binary	Hashing	All of the above	A
9	Which of the following tree traversal starts from root node?	inorder	preorder	postorder	None of the above	B
10	Which of the following tree traversal visits root node last?	inorder	preorder	postorder	None of the above	C
11	Which of the following is non-linear data structure?	Tree	Linked list	Stack	Array	A
12	Which of the following follows LIFO manner?	Stack	Queue	Both A and B	None of the above	A
13	Which of the following data structure allows operations at only one end?	Stack	Queue	Both A and B	None of the above	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
14	Which of the following data structure allows operations at both the ends?	Stack	Queue	Both A and B	None of the above	B
15	A simple queue uses ..... order.	FIFO	LIFO	LILO	None of the above	A
16	Insertion operation occurs at ..... end in a queue.	front	rear	top	bottom	B
17	Deletion operation occurs at ..... end in a queue.	front	rear	top	bottom	A
18	Which of the following points to element to be deleted next in stack?	front pointer	rear pointer	top pointer	None of the above	C
19	Which of the following condition relates to push operation in stack?	overflow	underflow	Both A and B	None of the above	A
20	Which of the following condition relates to pop operation in stack?	overflow	underflow	Both A and B	None of the above	B
21	Which of the following search method needs data in sorted order?	Linear	Binary	Hashing	All of the above	B
22	Which of the following is true for tree?	Root node have indegree 0	Should not contain cycle	Outdegree of leaf node is 0	All of the above	D
23	Which of the following node in binary tree has indegree 0.	Root	Leaf	Intermediate	All of the above	A
24	What is true for non-primitive data structures?	Not processed directly by machine instructions	user defined data types in C are examples are non-primitive	More complex	All of the above	D
25	Array uses ..... Method to access the elements.	Computed address	Linked address	Sequential address	None of the above	C
26	Linked list uses ..... Method to access the elements.	Computed address	Linked address	Sequential address	None of the above	B
27	Array is an example of ..... and ..... memory allocation.	Run, dynamic	Run, compile	Compile, dynamic	Compile, sequential	D
28	An integer is an primitive data type as	it is basic data type	processed by machine directly	Both A and B	None of the above	C
29	Which of the following does not have subtree in tree?	Root node	Leaf node	Intermediate node	None of the above	B
30	..... type of node is only one in given tree?	Root node	Leaf node	Intermediate node	None of the above	A
31	Stack can be implemented using	Array	Linked list	Both A and B	None of the above	C
32	A node structure for binary tree has	only one pointer	two pointers	no pointers	None of the above	B
33	The expressions used in programming languages are	infix expressions	prefix expressions	postfix expressions	depends on language	D
34	Which of the expression is most suitable for evaluation using stack?	infix	prefix	postfix	All of the above	C
35	The address field in the node of singly linked list	stores address of next node	can be NULL	Both A and B	None of the above	C
36	Which of the following allows insertion and deletion at either end?	queue	dqueue	stack	None of the above	D
37	End of the list is denoted in the singly linked list as	marked by special node	by storing length of list	using NULL pointer	All of the above	C
38	If last node in linked list points to first list it is called	circular linked list	round list	loop	None of the above	A
39	If a linked list has no nodes, it is called	zero list	empty list	null list	no node list	B
40	If the root node of a binary tree has both left and right pointers NULL, then it contains ..... nodes.	0	1	2	3	B
41	Which of the following inserts value at first position, if rear end is pointing to last position?	simple queue	dqueue	circular queue	All of the above	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
42	If singly linked list allows insertion at the end and deletion at the start, it implements ..... data structure.	queue	stack	dqueue	circular queue	A
43	If singly linked list allows insertion and deletion only at start, it implements ..... data structure.	queue	stack	dqueue	circular queue	B
44	What is true for inorder successor in binary search tree?	left most node in right subtree	right most node in left subtree	root of the left subtree	root of the right subtree	C
45	Inorder traversal of a binary starts from	root node	right most node of the tree	left most node of the tree	None of the above	C
46	Which is true for tree?	acyclic graph	directed graph	has a root node with indegree 0	All of the above	D
47	Performing search operation in binary search tree is	linear search	Binary search	hash search	None of the above	B
48	Which of the operation returns top most value in stack?	push	pop	peep	change	B
49	Which of the following stores elements in sequential manner in memory?	Array	Tree	Graph	All of the above	A
50	Which of the following search needs data in sorted order?	linear search	Binary search	hash search	None of the above	B
51	Which of the following list points to previous and next node both?	Singly linked list	Circular list	Doubly linked list	All of the above	C
52	Which of the following binary tree operation does not change the tree?	Search	Insertion	Deletion	None of the above	A
53	Which of the following data structure is hierarchical?	stack	List	Queue	Tree	D
54	Which of the following is true for AVL tree?	Difference of heights of left and right subtrees is 0	Difference of heights of left and right subtrees is 1	Difference of heights of left and right subtrees is <= 1	None of the above	
55	The value of root node in max-heap is	Largest of all	smallest of all	Any value	Can't say	A
56	Which is true for 2-3 tree?	It is height balanced tree	Non leaf nodes have 2-3 offsprings	Length of path from root to each leaf is same	All of the above	A
57	The value of root node in min-heap is	Largest of all	smallest of all	Any value	Can't say	B
58	Binary heap is used to implement ..... data structure.	dqueue	circular queue	priority queue	None of the above	C
59	Binary heap can be represented using	Array	Binary tree	Both A and B	None of the above	A
60	Binary heap is similar to	Simple binary tree	Complete binary tree	AVL tree	2-3 tree	B
61	Which of the following is useful for checking the balanced parantheses for the expression?	stack	queue	list	tree	A
62	Which of the following array operation is time consuming?	Changing value of an element	Reading an element	Inserting a new element	All of the above	A
63	Which of the following is fastest operation on array?	Changing value of an element	Deleting an element	Inserting a new element	None of the above	C
64	C language uses ..... method for array storage?	row-major	column-major	Both A and B	Any of A and B	A
65	Which of the following is not a linear data structure?	Array	stack	tree	queue	C
66	A line at the cinema hall represents	stack	queue	linked list	None of the above	B
67	Which of the following also called Reverse Polish notation?	Infix expression	Postfix expression	Prefix expression	All of the above	B
68	In a priority queue, two elements with same priority are processed in	Random manner	FCFS manner	Implementation dependent	None of the above	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
69	Stack is used for which of the following?	Recursion	Parameter passing	Evaluating postfix expression	All of the above	C
70	Which of the following search is faster for large data size?	Linear	Binary	Hash	All of the above	C
71	Which of the following traversal on binary search tree gives sorted data?	Inorder	Preorder	postorder	None of the above	A
72	What is drawback of doubly linked list compared to singly linked list?	Allows traversal in both directions	Deletion operation is faster	Needs more memory	All of the above	C
73	Which of the following allows traversal in both the directions?	Singly linked list	Doubly linked list	Circular list	All of the above	B
74	If first is a pointer to singly linked list and if first->next = NULL, How many nodes does list contain?	0	1	2	3	B
75	Conversion from infix to reverse polish expression uses ..... Data structure.	stack	queue	list	tree	A
76	Which of the following allows insertion and deletion to be performed at either end?	stack	queue	dqueue	None of the above	B
77	If dqueue allows insertion at only one end it is called	input restricted dqueue	insertion restricted dqueue	output restricted dqueue	None of the above	A
78	If dqueue allows deletion at only one end it is called	input restricted dqueue	deletion restricted dqueue	output restricted dqueue	None of the above	C
79	Indegree of a node in a directed graph means	number of incoming edges	number of outgoing edges	sum of incoming and outgoing edges	None of the above	A
80	Outdegree of a node in a directed graph means	number of incoming edges	number of outgoing edges	sum of incoming and outgoing edges	None of the above	B
81	Which of the following denotes the application of the graphs?	circuit networks	transport networks	maps	All of the above	D
82	A tree is ..... and ..... graph.	directed, cyclic	undirected, cyclic	directed, acyclic	undirected, acyclic	C
83	An edge starting and ending in same node is called	loop	swing	Both A and B	None of the above	A
84	The nodes having same parents in tree are called	peers	siblings	brothers	All of the above	B
85	All the nodes in a left subtree of a binary search tree contains keys	less than root	greater than root	Random	None of the above	A
86	All the nodes in a right subtree of a binary search tree contains keys	less than root	greater than root	Random	None of the above	B
87	Which of the following node in a tree has no child?	Root node	Middle node	Leaf node	All of the above	C
88	Which of the node in a tree has no parent node?	Root node	Middle node	Leaf node	All of the above	A
89	Which of the following does not store NULL in pointer field of any of its nodes?	Singly linked list	Doubly linked list	Circular linked list	All of the above	C
90	Linked list can be sorted by	swapping data only	swapping links only	Both A and B	None of the above	C
91	If following is preorder sequence of the tree, what is the value of root? 15 5 7 9 23 17 35	15	23	5	35	A
92	What is true for binary search tree?	All the keys in left subtree are less than root key	All the keys in right subtree are greater than root key	Both A and B	None of the above	C
93	Which of the tree operation visits node exactly once?	Search	Deletion	Traversal	All of the above	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
94	Which of the following property is used by binary search but ignored by linear search?	Maximum value of the list	Median of the list	Length of the list	Order of the list	B
95	Which is most suitable data structure to maintain the ready-queue in process management?	Array	Linked list	Tree	Graph	A
96	Which of the following is true for recursion?	Uses stack	result in infinite loop if not handled properly	Reduces the code size	All of the above	D
97	Which of the following is not suitable for recursion?	Printing Fibonacci numbers	Reversing a given string	Tree traversals	All are suitable for recursion	D
98	If function calls itself, it is an example of ..... recursion.	direct	indirect	tail	None of the above	A
99	Inorder threaded binary tree uses	Empty left link to point to inorder predecessor	Empty right link to point to inorder successor	Both A and B	None of the above	C
100	To delete a node from a binary search tree having both the subtrees non-empty needs to	find inorder successor of the node to be deleted	find inorder predecessor of the node to be deleted	Both A and B	None of the above	C
101	Inorder threading of a binary tree makes ..... operation faster.	finding inorder successor	finding inorder predecessor	Both A and B	None of the above	C
102	A large matrix with most of the elements are 0 is called	near-zero matrix	sparse matrix	zero matrix	None of the above	B
103	The signed integers are usually stored by programming languages using	1's complement	2's complement	No-complement	10's complement	B
104	Which of the following is not a graph traversal method?	Postorder	BFS	DFS	None of the above	A
105	The data with key k is stored at ..... Location using hashing.	k	k/2	h(k)	log k	C
106	Which of the following data structure does not allow reuse of the space, until its get empty?	Stack	Linear queue	Circular queue	All of the above	D
107	If a binary tree has N levels than possible number of nodes in the tree are	< 2N -1	= 2N -1	> 2N-1	None of the above	D
108	13. How many values can be stored by an array A(-1..m,1..m)?	m	m(m+1)	m(m+2)	m2	D
109	For an array A(1..m), if base address is 2000 and a size of element is 4 bytes, What is the address of A(5)?	2004	2008	2016	2020	C
110	For array A(-m..m) with element size 2, how much storage is required?	2m bytes	2m+1 bytes	2(2m+1) bytes	2m2 bytes	C
111	For array A(3..7), if base address = 4000 and size of element is 4 bytes, what is the address of third element?	4004	4008	4012	4016	B
112	The address of ith element of C array is determined using ..... function.	a + i	a + i * 2	a + i * 4	a + i * sizeof(data type)	D
113	For an array A(1..3,1..4), give the base address of A(2,3) element if base address is 2000 and size of element is 2 bytes for column major representation.	2010	2012	2014	2016	D
114	For an array A(1..3,1..4), give the base address of A(2,3) element if base address is 2000 and size of element is 2 bytes for row major representation.	2010	2012	2014	2016	B
115	If a stack is implemented using array A[1..N], the stackful condition is	top = N	top = N - 1	top = 0	None of the above	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
116	If a stack is implemented using array A[0..N-1], the initial value of top of the stack pointer is	top = 0	top = 1	top = -1	None of the above	C
117	If a linear queue is implemented using array A[1..N], the initial values of front and rear pointers are	front = rear = -1	front = rear = 0	front = rear = 1	None of the above	B
118	If a linear queue is implemented using array A[1..N], which of the condition represents queue is full?	rear = N	front = rear = N	front = N	None of the above	A
119	If a linear queue is implemented using array A[1..N] and if front and rear pointers are pointing at same location within queue, how many elements queue can have?	0	1	2	3	B
120	In a linear queue implemented with array A[1..N] and if rear pointer is pointing to N, which position the next element is inserted?	1	N	N + 1	results in overflow	D
121	In a circular queue implemented with array A[1..N] and if rear pointer is pointing to N, which position the next element is inserted?	1	N	N+1	None of the above	A
122	What is the queue full condition for circular queue implemented using array A[1..N]?	rear = N and front = 1	rear + 1 = front	Both A and B together	None of the above	C
123	What is the height of the full binary tree if it has 15 nodes?	2	3	4	5	C
124	No. of nodes at level = 3 in a full binary tree (level of root is 0) are	1	2	4	8	D
125	Total number of nodes in a full binary tree with height 5 is	15	31	63	127	B
126	In which of the following tree, all the levels are full?	Binary tree	Strict binary tree	Complete binary tree	All of the above	C
127	In which of the following tree, every node has exactly two childs?	Binary tree	Strict binary tree	Both A and B	None of the above	B
128	Preorder traversal is same as	depth first search	breadth first search	level order traversal	None of the above	A
129	If in a binary tree LPTR and RPTR denotes pointers to left and pointer to right subtrees respectively, which of the following condition for given node determines whether it is leaf node or not?	LPTR = NULL	RPTR = NULL	LPTR = RPTR = NULL	None of the above	C
130	Which of the following determines that the binary tree has only one node?	LPRT and RPTR of root node are NULL	Either of the LPRT and RPTR of root node is NULL	Pointer to root node is NULL	None of the above	A
131	Which of the following is suitable storage structure for binary trees?	Linked representation	Array representation	Both A and B	None of the above	A
132	Which of the following nodes a completer binary can contain?	30	31	32	Any of the above	D
133	If a complete binary tree is stored in array A[1..N], How do you find parent of ith node?	i/2 with truncation	2i	2i+1	None of the above	A
134	If a complete binary tree is stored in array A[1..N], How do you find left child of ith node?	i/2 with truncation	2i	2i+1	None of the above	B
135	If a complete binary tree is stored in array A[1..N], How do you find right child of ith node?	i/2 with truncation	2i	2i+1	None of the above	C
136	What is maximum height of any AVL tree with 7 nodes if height of tree with single node is 0.	1	2	3	4	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
137	If a binary tree is stored in array,the right child of node at position 5 is at	6	10	11	None of the above	C
138	Which of the following is valid sequence in an array representing 3-ary max-heap?	1 3 5 6 8 9	9 6 3 1 8 5	9 3 6 8 5 1	9 5 6 8 3 1	
139	A binary search tree is build by inserting numbers in following sequence. 10 1 3 5 15 12 16 What is the maximum height of a leaf from root node?	2	3	4	5	C
140	A binary search tree is build by inserting numbers in following sequence. 7 5 1 8 3 6 0 9 4 2 What would be the inorder traversal of resulting tree?	0 2 4 6 8 1 3 5 7 9	9 7 5 3 1 0 2 4 6 8	0 1 2 3 4 5 6 7 8 9	None of the above	C
141	Assume that array A[1..N] is used to implement double stack. Two stacks grow from opposite side and top1 and top2 are the top pointers for them. Which of the following is "stack full condition"?	top1+top2 = N	top1 = N/2 and top2 = N	top1 = top2 -1	None of the above	C
142	What is the postfix expression for infix expression : a + b / c - d * e ?	b c / a + d e * -	a b + c d - / e *	a b + d e * c /	None of the above	D
143	Assume that the following are the sequence resulted using the inorder and preorder traversal of a binary tree. Inorder: 5 7 10 13 15 17 Preorder: 10 5 7 15 13 17 What is correct postorder sequence?	7 5 13 17 15 10	7 5 13 10 15 17	5 7 13 17 15 10	None of the above	A
144	The preorder traversal of a*(b+c)/d-g is	*+ab/c-dg	*a+bc/-dg	-*a/+bcdg	None of the above	D
145	Which of the following array represents a binary max-heap?	{25,12,16,13,10,8,14}	{25,14,13,16,10,8,12}	{25,14,16,13,10,8,12}	None of the above	C
146	Assume that first is a pointer to singly linked list having more than 2 2 nodes, what is the effect of following operation? first = first->next;	Inserts a node	deletes first node	No effect	None of the above	D
147	A binary tree is created by inserting following sequence. 6 10 25 12 4 7 15 8 33 Which traversal does following sequence shows? 6 4 10 7 25 8 12 33 15	Inorder	preorder	postorder	level order	B
148	The search ends in binary search tree, when	Node is found	A leaf node is reached	Either of A or B	None of the above	C
149	Assume that the following are the sequence resulted using the inorder and preorder traversal of a binary tree. Inorder: 5 7 10 13 15 17 Preorder: 10 5 7 15 13 17 How many nodes are there in left subtree?	2	3	4	None of the above	A
150	Assume that the following are the sequence resulted using the inorder and preorder traversal of a binary tree. Inorder: 5 7 10 13 15 17 Preorder: 10 5 7 15 13 17 How many nodes are there in right subtree?	2	3	4	None of the above	B
1	Which of the following topologies follows the primary-secondary relationships between the devices?	Mesh	Ring	Star	Bus	C
2	Frequency range of the coaxial cable is	100 Hz to 5MHz	100 Hz to 500MHz	100 KHz to 500MHz	None of these	
3	When the angle of refraction is 90 degrees and the angle of incidence is 68 degrees, then the critical angle would be	45	90	68	180	A
4	End-to-End connectivity is provided from host-to-host in	Network Layer	Data link Layer	Transport Layer	Physical Layer	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
5	Port number is	Process Number	Computer's Physical Address	Equivalent to IP Address	None of these	A
6	MTU Stands for	Minimum Transfer Unit	Maximum Transfer Unit	Minimum Transmission Unit	Maximum Transmission Unit	D
7	Which is the devices belongs to the OSI physical layer?	Switch	Repeater	Router	Bridge	B
8	Virtual Terminal (TELNET)	Maps host name onto their network addresses	Allow user to login one machine from distant machine	Move news article around	Fetch pages from www	B
9	Segmentation is done at	Transport Layer	Network Layer	Physical layer	Data link Layer	A
10	Congestion Control is done at	Physical layer	Data link Layer	Transport Layer	Network Layer	D
11	Manchester Code is	Non-return to zero code	polar code	bipolar code	both A and B	D
12	Which is the main difference between synchronous and asynchronous transmission?	The bandwidth requirement is different	clocking is derived from data in synchronous transmission	Pusle height is different	Clocking is mixed with data in asynchronous transmission	
13	The purpose of preamble in the ethernet is	Error checking	collision avoidance	clock synchronization	Broadcast	C
14	Which Protocol Data Unit (PDU) is employed at the transport layer	Bits	Segments	Frames	Packets	B
15	Baud rate means	No of bits tramsmitted per unit time	No of signal units per second to represent the bits	No of pulse transmitted per unit time	No of bits received per unit time	A
16	Which of the following is a example of bounded mediaum?	Coaxial Cable	Waveguide	Fiber optics cable	All of these	D
17	Wavelength Division Multiplexing is used in	Coaxial Cable	Twisted pair cable	Fiber optics channel	Microwave transmission	C
18	The transfer of data from CPU to peripheral devices of the computer system is achieved	Compuetr ports	Buffer memory	Interfaces	Modems	A
19	If switches are used to replace the hubs on a network, which of the following statement is true?	The number of broadcast domains will increase	The number of collision domains will increase	The number of collision domains will decrease	The number of broadcast domains will decrease	D
20	Which error detection method uses ones compliment arithmetic?	checksum	CRC	simple parity ckeck	two-dimetional parity check	A
21	In CRC, there is no error if remainder at the receiver is _____.	equal to reminder of the sender	nonzero	zero	the quotient at the sender	C
22	Hamming code is used for	Error detection	Error correction	Error generation	both A and B	D
23	HDLC does not support	Half Duplex	Balanced Multipoint	Full Duplex	Multipoint Link	B
24	FDDI is a	Hybrid Network	Ring Network	Star Network	Mesh Network	B
25	ALOHA	Is used for channel allocation problem	Is used for Buffering	Is used for data transfer	None of these	A
26	Pure ALOHA	Does not requires global time synch	both A and B	Does requires global time synch	None of these	A
27	Which of the following is a type of coax cabling transmission method?	Baseband	CSMA/CD	Broadband	both A and C	D
28	The LLC (Logical Link Control) standard format is based on	BLAST	SDLC	ZMODEM	HDLC	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
29	what is a MAC?	It is Network layer address of the NIC that cannot be modified	It is Network layer address of the NIC that can be modified	It is Data-Link layer address of the NIC that cannot be modified	It is Data-Link layer address of the NIC that can be modified	A
30	In the sliding window protocol, if the window size is 63, what is the range of sequence number?	0 to 64	0 to 63	1 to 64	1 to 63	B
31	The Hamming distance between 001111 and 010011 is	1	2	3	4	C
32	What addressing information is shipped with every network interface card?	IP Address	MAC Address	ARP Address	All of these	D
33	IGRP Stands for	Interior Gateway Routing Protocol	Internal Gateway Routing Protocol	Internet Gateway Routing Protocol	Interior Gigabit Routing Protocol	A
34	Which of these true? (I) Transmission is a physical movement of the Information (II) Communication means meaningful exchange of information between two communication entities.	I	II	I and II	None of these	C
35	Which of the following statement is true about router and bridge?	Bridges connect two networks at transport layer	Routers are improved Bridges	Bridges are type of inexpensive routers	Routers connect two networks at network layer	D
36	In the virtual circuit switching approach, a route is established are sent	After packets	After Data	Before packets	Before Data	D
37	What is the difference between DTE and DCE devices?	DTE does not clocking while DCE goes according to clocking	DCE does not clocking while DTE goes according to clocking	DTE are capable for routing while DCE are not	DCE are capable for routing while DTE are not	A
38	Which is the most dominant LAN Technology?	Ethernet	Asynchronous Transfer Mode	Token Ring	Token Bus	A
39	X.25 standard Specifies a	Techniques for Start/Stop data	DTE/DCE Interface	Techniques for dial access	Data Bit rate	B
40	RIP is based on	Link State routing	Distance vector routing	Dijkstra's algorithm	Path vector routing	B
41	A Routing table contains	the destination network ID	next hop router ID	The Hop count	All of these	D
42	OSPF is based on	Link State routing	Distance vector routing	Dijkstra's algorithm	Path vector routing	A
43	BGP is based on	Link State routing	Distance vector routing	Dijkstra's algorithm	Path vector routing	D
44	Dijkstra's algorithm is used to	Create LSA's	Flood an internet with information	Calculate the routing tables	create a link state databases	C
45	Transport Layer is responsible for	Hop-to-Hope delivery	Network-to-Network delivery	End-to-End delivery	Station-to-Station delivery	C
46	The file transfer protocol FTP requires a realiable transport service, which protocol of the TCP/IP suite does it use?	Tansmission Control Protocol (TCP)	User Datagram Packet (UDP)	Telnet	All of these	A
47	If your routing table reaches to large size then how could you decrease the size of table?	Add more memory to router	Replace router with most powerful one	switch to different routing protocol	Implement summarization	
48	Which of the following is the most resistant to electrical and noise interference?	Fiber	UDP	Coaxial Cable	STP	A
49	Which of the following is most expensive to install and terminate?	Coaxial Cable	CAT4 UTP	Fiber cable	CAT5 UTP	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
50	Bit stuffing means	inserting 0 in flag stream to avoid ambiguity	inserting 0 in user data stream to differentiate it with a flag	Appending a nibble to flag sequence	Appending a nibble to user data stream	B
51	For subnet addresses, (i) 128.252.4.0 (ii) 128.252.8.0 (iii) 128.252.12.0 and (iv) 128.252.16.0 which will be a subnet mask?	255.255.255.0	255.255.240.0	255.255.192.0	255.255.252.0	A
52	Whci of the following network address classes id reserved for multicast addressed only?	class A	class C	class D	class B	C
53	Put the encapsulation steps in order: 1:User Input, 2:data, 3:Frame, 4:Segment, 5:Datagram, 6:bits	1-2-3-4-5-6	1-2-4-5-3-6	1-3-4-5-6-2	1-2-5-4-3-6	B
54	Where router will store the active configuartion file?	In NVRAM	In RAM	In ROM	On TFTP Server	D
55	Why origional SNMP causes greater network overhead?	Because it uses UDP Protocol	Beacause it allows remote configuration	Because it can not automatically provide Information to management info base	All of these	
56	Which of following is not a function of Transport Layer	Provide a ability to send ACK packet	Segments can be placed back into their correct sequence at destination	Can issue the NOT READY indicator	Providing routing services	B
57	Let in IPv4 datagram, total length is 461 bytes and length of data is 433 bytes, so determine the header size in bytes	28	27	32	224	A
58	IP has	Flow control mechanism	Congection control mechanism	Both A and B	None of these	C
59	How many IP addresses are available to company with class B addresses?	8192	65536	32768	16384	D
60	TCP sending data at 1 meghabyte/s, if sequence number starts with 0, how long does it take before sequence goes 7002?	5 msec	7 msec	1.056 sec	None of these	
61	Which of the following is the functinality of TCP timers?	Retransmission	Persistence	Keep alive	All of these	D
62	As if IP datagram travels from its source to its destination	Source IP address is changed at each router to identify the sending router	The router uses destination IP address to consult its routing table	the router does not use the IP addresses in the datagram	Destination IP address is changed at each router to reflect the next hop	
63	The primary functions of the ARP that resides in Internet hosts and routers is	To provide LAN router functions	To traslate LAN addresses to Physical interface addresses	To translate IP addresses to LAN addresses	To calcuate shortest path between two nodes on a LAN	C
64	Subnetting and Supernetting techniques are used to help avoid	Congestion at Routers	The running out of address space problem	Overflow of buffer at receiver	Duplication of Datagrams	B
65	Given the address 172.16.2.120 and the subnet mask of 255.255.255.0. How many hosts are available?	254	126	510	16372	A
66	For system using TCP, the sender window size is determined by window size. (1) Receiver (2) Sender (3) Congestion	1 and 2 Only	2 and 3 Only	1 and 3 Only	1, 2 and 3	C
67	Encryption/Decryption provide the network with	Authentication	Integrity	Non-repudiation	Privacy	D
68	Digital signature can provide the network with	Authentication	Integrity	Non-repudiation	All of these	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
69	Which of the following is one of the most important tasks to perform when hardening a DNS Server?	FTP Server	DNS Server	NNTP Server	File and Print server	
70	What is the primary purpose of the FTP server?	Simplify the storage of files	Allow for backup storage of files	Report security violation of files	Facilitate the transfer of files	D
71	SNMP uses which Transport layer port number to communicate?	UDP port 21	TCP port 21	UDP port 69	UDP port 161	D
72	which of the following is included in a packet header to ensure that data split over several packets is reassembled in the correct order?	Checksum	sequence number	packet number	source address	C
73	What is the maximum size of the data that application layer can pass on to the TCP layer below?	Any Size	216 byte	216 byte size of the TCP header	1500 byte	A
74	Which of the following statement is FALSE regarding to the Bridge	Bridge is Layer2 device	Bridge used to connect two or more LAN segment	Bridge reduces collision domain	Bridge reduces broadcast domain	B
75	In a broad sense, Railway track is a example of	Simplex	Half-Duplex	Full Duplex	All of these	B
76	TFTP uses which transport protocol?	SPX	UDP	ICMP	TCP	B
77	What is the remainder obtained by dividing X7 + X5 +1 by the generator polynomial X3 + 1	X3 + X +1	X2 + X +1	X4 + X +1	X4 + X +1	B
78	Start and Stop bits are used in the serial communication for	Error detection	Error correction	Synchronization	Slowing down the communication	C
79	Piggybacking is a method of	Backtracking	Forwarding	Method to combine a data frame and ACK	None of these	C
80	A computer is using the following sequence numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9,10, 11, 12, 13, 14, 15, 0, 1, ……. Then what is the size of window using selective repeat protocol?	16	8	4	3	B
81	Stop and wait protocol equal to	SR protocol with SWS = 1	GBN protocol with RWS = 1	SR protocol with SWS = RWS	GBN protocol with SWS = RWS	D
82	Which of the following will descriminate LAN or a WAN?	Distance and size	Distance and Time	Size and shape	Topology and Time	B
83	The Data-Link layer is devided into	MAC and LLC	L2CAP and MAC	LCAP and MAC	None of these	A
84	In Ethernet, MAC sub-layer uses access method	ALOHA	CSMA/CD	Slotted ALOHA	None of these	B
85	GIGABIT Ethernet uses	NRZ encoding	Manchester Encoding	Both A and B	None of these	D
86	which of the following is true for infra-red transmission?	suitable for a WAN	Blocked by solid objects	Uses expensive cables	Use copper shielding	B
87	In Stop and Wait ARQ if ACK1 is sent by receiver then the sender sends	Frame-1	Frame-2	Frame-0	None of these	A
88	in which ARQ, if a NAK is received, only specific damaged or lost frame is retransmitted?	Stop and Wait	Go-back-N	Selective repeat	Both A and B	C
89	What is TTL?	Time To Live	Time To Learn	Time To Leave	Time To Link	A
90	A subnet mask is the portion of an IP address that identifies	a perticular network	A perticular computer	A perticular person	The perticular location of a computer	A
91	Which of the following will create a Push Button?	Input	Reset	Radio	CheckBox	A
92	Choose the correct HTML tag for left align the content inside a table cell	<td left align>	<td align="left">	<td ralign="left">	<tdleft>	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
93	In HTML, Which of the following attributes of text control allow to limit the maximum character?	Maxlength	Size	Length	None of these	A
94	In HTML, Which of the following will be considered a container?	<BODY>	<INPUT>	<VALUE>	<SELECT>	A
95	The correct HTML Tag for largest heading is	<h1>	<heading>	<h6>	<head>	A
96	Which of the following is a not attribute of <FORM> tag	SUBMIT	ON SUBMIT	ACTION	METHOD	A
97	The <INPUT> is	Unformatted tag	Empty tag	Format tag	None of these	B
98	The main container of the <TR>, <TD> and <TH> is	<CAPTION>	<DATA>	<GROUP>	<TABLE>	D
99	The attribute that defines the releationship between current document and HREF's URL is	REV	URL	REL	None of these	A
100	The MIME text file is saved with	HTML Extension	HMT Extension	TMH Extension	None of these	A
101	How many basic types of bullets supported by the HTML4.	One	Three	Two	Four	B
102	Which of the following will display the line with more thickness?	cannot be determine	<HR size = 10 noshade>	<Hr Size = 10>	both B and C	B
103	POP stands for	Past Office Protocol	Post Office Protocol	Previous Office Protocol	Present Office Protocol	B
104	Which one of the following is not a client-server application ?	Internet chat	Web browsing	E-mail	Ping	A
105	One of the header fields in an IP datagram is the (TTL) field. Which of the following statements best explains the need for this field ?	It can be used to prioritize packets	It can be used to reduce delays	It can be used to optimize throughput	It can be used to prevent packet looping	D
106	In the slow start phase of TCP congesting control algorithm, the size of the congestion window	Does not increase	Increases linearly	Increases quadratically	Increases exponentially	D
107	Which of the following statements is not true about XML Schemas?	They are used to define the content and structure of data	They define a set of symbols and the relationships of those symbols	They are themselves XML documents.	They have their own syntax.	D
108	To eliminate definition duplication, XML Schemas define	an intersection table.	global elements	a normalized definition table.	None of the above is correct.	C
109	XML Schemas consist of	properties and methods	elements and attributes	structure and data	tables and relationships	B
110	What standard, protocol or language was generalized to become a standard protocol for sending messages of any type, using any protocol?	SOAP	SGML	SQL	ADO	A
111	How long is an IPv6 address?	32 bits	128 bytes	64 bits	128 bits	D
112	What flavor of Network Address Translation can be used to have one IP address allow many users to connect to the global Internet?	NAT	Static	Dynamic	PAT	D
113	You have 10 users plugged into a hub running 10Mbps half-duplex. There is a server connected to the switch running 10Mbps half-duplex as well. How much bandwidth does each host have to the server?	100 kbps	1 Mbps	2 Mbps	10 Mbps	D
114	Which protocol is used to send a destination network unknown message back to originating hosts?	TCP	ARP	ICMP	BootP	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
115	Which class of IP address has the most host addresses available by default?	A	B	C	Both A and B	A
116	What is a stub network?	A network with more than one exit point	A network with more than one exit and entry point	A network with only one entry and no exit point.	A network that has only one entry and exit point.	D
117	What does a VLAN do?	Acts as the fastest port to all servers.	Provides multiple collision domains on one switch port	Breaks up broadcast domains in a layer 2 switch internetwork	Provides multiple broadcast domains within a single collision domain.	C
118	What is the main reason the OSI model was created?	To create a layered model larger than the DoD model	So application developers can change only one layer's protocols at a time.	So different networks could communicate.	So Cisco could use the model.	C
119	Which protocol does Ping use?	TCP	ICMP	ARP	BootP	B
120	Which statement(s) about IPv6 addresses are true? (1) Leading zeros are required. (2) Two colons (::) are used to represent successive hexadecimal fields of zeros. (3) Two colons (::) are used to separate fields. (4) A single interface will have multiple IPv6 addresses of different types	1 and 3	2 and 4	1, 3 and 4	All of the above	B
121	In the network with 50 computers, Mesh topology will requires how many numbers of cables?	1225	1280	50	99	A
122	Maximum data rate of a channel of 3000 Hz bandwidth and S/N ratio of 30 dB is	30000 bps	60000 bps	75000 bps	3000 bps	A
123	A terminal multiplexer has six 1200 bps termnals and nline what will be the value of n?	4	12	8	16	C
124	For the fiber optics cable if the propagation speed is 2x108propogation time would be	10 microsecond	0.1 microsecond	1 microsecond	0.001 micosecond	A
125	characters per second (7bit + 1 parity) which can be transmitted over a 2400 bps line if the transfer is synchronous (1 start + 1 stop bit)	275	240	250	300	D
126	State True (T) and false (F) of the following (respectively). 1. Hub is multi-port repeater 2. Bridge has filtering capability 3. The bridge changes the MAC address	TTT	TTF	FFT	FTT	B
127	No of cross points needed for 10 lines in a cross point switch which is full duplex in nature and there are no self connection is,	45	43	50	90	A
128	What layer of the OSI model would be connected with network applications such as Telnet and FTP?	The application Layer	The Data Link Layer	The session layer	The presentation layer	B
129	Consider the signal is measured at two different points. The power P1 is one point and P2 is at second point. If dB is zero then,	P2 is zero	P2 equals to P1	P2 is larger than P1	P2 is smaller than P1	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
130	To correct the single bit error the number of redundancy bit required for 64 bit data	6	7	8	9	B
131	What is the probability of exactly 5 collision followed by a success when ALOHA users generate 50 request/second, if time is slooted in units of 40 msec?	0.12	0.06521	0.3	None of these	D
132	In a Stop and Wait ARQ bandwidth 1Mbps and 1bit takes 20ms to make a round trip if system data frame are 1000 bit's in length then what is the % of utilization of the link	2%	3%	10%	5%	D
133	Consider the sliding window algorithm where sender window size is 9 and receiver window size is 7 and no out of order arrivals. What is the smallest value for maximum sequence number?	7	15	4	16	A
134	What will be result for the protocol G-Back-N with window size of 7?	50sec	7.1sec	12.5sec	None of these	B
135	if we run N simultaneous stop-n-wait ARQ processors parallelly over the transmission channel, then it is equal to	Go-back N protocol	SR Protocol	Stop-n-wait protocol	None of these	C
136	if RTT is 40ms and transmission delay is 200ms then what is the throughput of the ethernet?	55%	67%	50%	None of these	D
137	CSMA/CD LAN is designed over a 1km cable without repeater. The minimum frame size that DLL should consider if cable support signal speed of 200000 km/sec is	1000	5000	100000	10000	D
138	An image is of 1024x768 pixels with 3 bytes/pixel. Assume image is uncompressed the how long will it takes to transmit it over 56 kbps modem channel?	329.14 second	329.14 ms	330 second	330 ms	C
139	In the TCP/IP Protocol suite, which on of the following is a NOT part of the IP header?	Fradment offset	Source IP address	Destination IP address	Destination port address	D
140	Which of the following command/s is/are supported by ICMP protocol?	ping	Tracert	A Only	A and B Both	D
141	If you have a network 192.168.10.0/24. How many subnets and hosts are available?	10 subnet-10 hosts	1 subnet-254 hosts	1 subnet-1 hosts	254 subnet-254 hosts	B
142	If you have a IP 156.233.42.56 with subnet mask of 7 bits. How many hosts and subnets are available?	510 subnet-126 hosts	128 subnet-512 hosts	126 subnet-510 hosts	None of these	D
143	Which of the following statement is FALSE?	HTTP runs over TCP	HTTP describe the structure of web pages	HTTP allows information to be stored in a URL	HTTP can be used to test the validity of the hyperlink	
144	In TCP, Unique sequence number is assigned to each	Byte	word	Segment	Message	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
145	ARP request is _____ while ARP reply will _____	Broadcast, Unicast	Unicast, broadcast	Broadcast, broadcast	Unicast, unicast	A
146	A datagram size consists of minimum _____ bytes and maximum _____ bytes	22,64	20,60	28,56	30,60	B
147	Packets of the same session may be routed through different paths in	TCP but not UDP	TCP and UDP	UDP but not TCP	Neither TCP, nor UDP	B
148	An organization has a class B network and wishes to form subnets for 64 departments. The subnet mask would be	255.255.0.0	255.255.64.0	255.255.128.0	255.255.252.0	D
149	In a packet switching network, packets are routed from source to destination along a single path having two intermediate node. If the message size is 24 bytes and each packet contains a header of 3 bytes, then the optimum packet size is	4	6	7	9	D
150	Suppose the round trip propagation delay for a 10 Mbps Ethernet having 48-bit jamming signal is 46.4 sμ . The minimum frame size is	94	416	464	512	C
151	In Ehernet when manchester encoding is used, the bit rate is	Half the baud rate	Twice the baud rate	Same as the baud rate	None of these	A
152	In a token ring network the transmission speed is 10 bps and the propagation speed is 200 metres/μs. The 1-bit delay in this network is equivalent to	500m of cable	200 m of cable	20m of cable	50m of cable	C
153	The maximum window size for data transmission using the selective reject protocol with n bit frame sequence number is	2n	2n-1	2n-1	2n-2	B
154	Which of the following is private IP address?	12.0.0.1	168.172.19.39	172.15.14.36	192.168.24.43	D
155	Which of the following allows a router to respond to an ARP request that is intended for a remote host?	Gateway DP	Reverse ARP (RARP)	Proxy ARP	Inverse ARP (IARP)	C
156	The DoD model (also called the TCP/IP stack) has four layers. Which layer of the DoD model is equivalent to the Network layer of the OSI model?	Application	Host-to-Host	Internet	Network Access	C
157	Pat Address Translation is also termed what?	NAT Fast	NAT Static	NAT Overload	Overloading Static	C
158	which of the following system calls results in the sending of SYN packets?	socket	bind	listen	connect	D
159	In RSA Algorithm, value of p is 5 and q is 11, find the value of decryption key if the value of encryption key is 27	40	27	3	None of these	
160	Frequency range of the microwaves is	100 MHz to 10 GHz	100 MHz to 1 GHz	100 KHz to 100 MHz	1 GHz to 10 GHz	
161	Spreading of light rays in all directions perpendicular to direction of travelling is known as a	spreading	dispersion	traversal	None of these	

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
162	Standard to implement the wireless LAN based on ethernet is	802.11	802.16	802.3	802.5	A
163	The wireless communication between the devices take place without using access point is	infrastructure mode	Mix mode	adhoc mode	None of these	C
164	Fiber optics cable operates in the frequency range of	microwave range	visible light	A and B Both	None of these	
165	The connection establishment in TCP is called	One-way handshaking	Two-way handshaking	Three-way handshaking	None of these	C
166	In sliding window protocol, what is the value of the receiver window for host A if the receiver host B has a buffer size of 5000 bytes and 1000 bytes of received and unprocessed data?	5000 bytes	4000 bytes	1000 bytes	6000 bytes	
167	Which timer is used to prevent a long idle connection between teo TCPs?	keepalive Timer	Time-wait Timer	Stowatch timer	None of these	A
168	SCTP stands for	Super Control Transmission Protocol	Stream Control Transmission Protocol	Special Control Transmission Protocol	Safety Control Transmission Protocol	B
169	UDP is	message-oriented protocol	bit-oriented protocol	byte-oriented protocol	None of these	A
170	TCP is	message-oriented protocol	bit-oriented protocol	byte-oriented protocol	None of these	D
171	SCTP is	message-oriented protocol	bit-oriented protocol	byte-oriented protocol	None of these	A
172	Routing inside an autonomous system is reffered to as	intradomain routing	autonomous routing	interdomain routing	None of these	A
173	Routing between an autonomous system is reffered to as	intradomain routing	autonomous routing	interdomain routing	None of these	C
174	Which of the following is intradomain routing protocol	TCP	RIP	OSPF	Both B and C	D
175	Which of the following is interdomain routing protocol	BGP	RIP	OSPF	None of these	A
176	On the network, multicast routers are connected to each other logically by	creating multicast backbone	adding multicast routers	adding unicast routing	None of these	B
177	DHCP is backward compitible with	TCP	BOOTP	IP	None of these	B
178	Common Gateway Interface (CGI) is	techniques to handle dynamic documents	techniques to handle static documents	techniques to handle multimedia documents	None of these	A
179	JPEG is a	image compression techniques	image editing techniques	image handling techniques	None of these	A
180	The delay between two real time packet is called	Delay	Jitter	gap	None of these	A
181	The TTL field of IPv4 is replaced by which filed of IPv6?	time limit	left field	timer field	hop limit	D
182	IP within IP is called	encapsulation	tunneling	tunning	mixing	A
183	How many cross points are needed in a single stage switch with 40 inputs and 50 outputs?	40	50	90	2000	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
184	for 64 kbps satellite channel, 512B data frames and RTT=64ms, what is max throughput for the window size of 1?	1 kbps	4 kBps	4 kbps	7 kbps	B
185	for 64 kbps satellite channel, 512B data frames and RTT=64ms, what is max throughput for the window size of 8?	8kbps	16 kBps	32 kBps	448 kbps	C
186	This command identifies the recipient of the mail.	HELO	MAIL FROM	RCPT TO	None of these	C
187	What is the port number for Domain Name System service DNS?	53	54	61	60	A
188	What is the port number for (Remote login service) Telnet?	20	25	23	24	C
189	What is the port number for (File Transfer Protocol - Data) FTP?	20	21	22	35	B
190	What is the port number for (Simple Mail Transfer Protocol) SMTP?	20	25	23	24	B
191	What is the port number for Internet Message Access Protocol (IMAP)?	161	149	144	143	D
192	What is the port number for ECHO?	10	7	9	8	B
193	In _____, resources are allocated on demand	datagram switching	circuit switching	frame switching	none of the above	A
194	which address in the header of a packet in a datagram network normally remains the same during the entire journey of the packet?	source	destination	local	none of these	A
195	Which of the following functions does UDP perform?	process-to-process communication	host-to-host communication	end-to-end reliable data delivery	None of the choices are correct	C
196	Which of the following does UDP guarantee?	flow control	connection-oriented delivery	congestion control	None of the choices are correct	D
197	The combination of an IP address and a port number is called a	transport address	network address	socket address	None of the choices are correct	C
198	In FTP, ASCII, EBCDIC, and image define an attribute called	file type	data structure	transmission mode	none of the choices are correct	D
199	In FTP, which category of commands defines the port number for the data connection on the client site?	file transfer commands	access commands	port defining commands	none of the choices are correct	C
200	In TFTP, a connection is terminated with.	DATA	ACK	ERROR	none of the choices are correct	A
201	In TFTP, if a duplicate DATA message is received	the sender sends an error message	the connection is terminated	the receiver discards the duplicate	none of the choices are correct	C
202	In a URL, the _____ is the client-server program used to retrieve the document.	path	protocol	host	None of the choices are correct	B
203	One way to create an active document is to use	CGI	Java stand-alone programs	Java applets.	None of the choices are correct	C

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
204	HTTP uses the services of _____ on well-known port 80.	UDP	IP	TCP	None of the choices are correct	C
205	In a _____connection, the server leaves the connection open for more requests after sending a response.	persistent	nonpersistent	persistent and nonpersistent	None of the choices are correct	A
206	Which of the following is present in both an HTTP request line and a status line?	HTTP version number	URL	status code	None of the choices are correct	A
207	The HTTP request line contains a _____ method to request a document from the server.	GET	POST	COPY	None of the choices are correct	
208	The HTTP request line contains a _____ method to get information about a document without retrieving the document itself.	HEAD	POST	COPY	None of the choices are correct	A
209	An applet is _____ document application program.	a static	an active	a passive	a dynamic	B
210	_____ is more powerful and complex than _____.	POP3; IMAP4	IMAP4; POP3	SMTP; POP3	None of the choices are correct	B
211	Suppose the BSNL telephone line has a bandwidth of 6100Hz the S/N ratio is 40 dB then capacity of the channel would be	80176 bps	38821 bps	32681 bps	81056 bps	D
212	when the signal travels through the transmission medium, its power becomes 100 times Then gain/loss would be	Gain of 80 dB	Loss of 80 dB	Gain of 20 dB	Loss of 20 dB	C
213	If channel capacity is 250Kbps, find the white noise present in the channel if the signal strength is 15microW and bandwidth is 8000 Hz, SNR=20000.	9.375 x 10^{-12} watts/Hz	9.370 x 10^{-11} watts/Hz	9.388 x 10^{11} watts/Hz	9.368 x 10^{12} watts/Hz	
214	The wavelength of the red light whose frequency is 4x4_{14} Hz in the air is	0.75 micrometer	7500 pm	400 m	Data insufficient	A
215	When the signal travels through the transmission medium, its power becomes one fifth Then power	Loss of 7 dB	Gain of 7 dB	Loss of 5 dB	Gain of 5 dB	A
216	How many 8-bit characters can be transmitted per second over a 9600 baud serial communication link using asynchronous mode of transmission with one start bit, eight data bits, and one parity bit ?	600	800	876	1200	C
217	A and B are the only two stations on an Ethernet. Each has a steady queue of frames to send. Both A and B attempt to transmit a frame, collide, and A wins the first backoff race, At the end of this successful transmission by A, both A and B attempt to transmit and collide. The probability that A wins the second backoff race is	0.5	0.625	0.75	1	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
218	Two computers C1 and C2 are configured as follows. C1 has IP address 203. 197.2.53 and netmask 255.255. 128.0. C2 has IP address 203.197.75.201 and netmask 255.255.192.0. Which one of the following statements is true?	C1 and C2 both assume they are on the same network	C2 assumes C1 is on same network, but C1 assumes C2 is on a different network	C1 assumes C2 is on same network, but C2 assumes C1 is on a different network	C1 and C2 both assume they are on different networks	C
219	Suppose computers A and B have IP addresses 10.105.1.113 and 10.105.1.91 respectively and they both use the same netmask N. Which of the values of N given below should not be used if A and B should belong to the same network ?	225.255.255.0	255.255.255.128	255.255.255.192	255.255.255.224	D
220	Which ATM layer has a 53-byte cell as an end product?	physical	ATM	Application adaptation	None of these	B
221	The IP protocol uses the which sublayer.	AAL1	AAL2	AAL5	None of these	C
222	Which one out of following is suitable for businesses that require comparable upstream and downstream data rates.	VDSL	ADSL	SDSL	None of these	C
223	SONET is a standard for which kind of networks.	twisted-pair cable	coaxial cable	fiber-optic cable	None of these	C
224	In which service, there is a relation between all packets belonging to a message.	connectionless	virtual	connection-oriented	None of these	C
225	which control means including a mechanism for detecting corrupted, lost, or duplicate packets.	Flow	Error	Congestion	None of these	B
226	which packet is a special packet that can be sent from a router to the sender when the router encounters a congestion.	ckoke	data	control	None of these	A
227	The number of addresses assigned to an organization in classless addressing	can be any number	must be a multiple of 256	must be a power of 2	None of the choices are correct	C
228	The first address assigned to an organization in classless addressing	must be a power of 4	must be evenly divisible by the number of addresses	must belong to one of the A, B, or C classes	None of the choices are correct	B
229	Which address could be the beginning address of a block of 32 classless addresses?	2.4.6.5	2.4.6.16	2.4.6.64	None of the choices are correct	C
230	What is the first address of a block of classless addresses if one of the addresses is 12.2.2.76/27?	12.2.2.0	12.2.2.32	12.2.2.64	None of the choices are correct	C
231	In fixed-length subnetting, the number of subnets must	be a power of 2	be a multiple of 128	be divisible by 128	None of the choices are correct	A
232	What is the default mask for class A in CIDR notation?	/9	/8	/16	None of the choices are correct	B
233	In which addressing, when an address is given, we can find the beginning address and the range of addresses.	classless	classless	both classless and classful	None of the choices are correct	B
234	In a block, the mask is 255.255.255.224; what is the prefix length?	/20	/19	/20	None of the choices are correct	D

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
235	In which forwarding, the mask and destination addresses are both 0.0.0.0 in the routing table?	next-hop	network-specific	host-specific	default	D
236	The idea of address aggregation was designed to alleviate the increase in routing table entries when using	classful addressing	classless addressin	classful addressing and classless addressing	None of the choices are correct	B
237	By using of hierarchy in routing tables,the routing tables size will be	reduce	increase	reduce and increase	None of the choices are correct	C
238	The task of moving the packet from the input queue to the output queue in a router is done by	input and output ports	routing processor	switching fabrics	None of the choices are correct	C
239	A best-effort delivery service such as IP includes	error checking	error correction	datagram acknowledgmen	None of these	D
240	If the fragment offset has a value of 100, it means that	the datagram has not been fragmented	the datagram is 100 bytes in size	the first byte of the datagram is byte 800	None of the choices are correct	C
241	What is needed to determine the number of the last byte of a fragment?	offset number	total length	both offset number and the total length	None of the choices are correct	C
242	The IP header size	is 20 to 60 bytes long	is 20 bytes long	is 60 bytes long	is 80 bytes long	A
243	When we use IP over ATM, padding can be added only to the _____ or the _____.	first cell; last cell	last two cells; last three cells	last cell; last two cells	None of the choices are correct	C
244	ATM network to be divided into several logical subnets with the help of	LAS	LAN	LIS	None of the choices are correct	C
245	If the sender is a host and wants to send a packet to another host on the same network, the logical address that must be mapped to a physical address is	the destination IP address in the datagram header	the IP address of the router found in the routing table	the source IP address	None of the choices are correct	A
246	he target hardware address on an Ethernet in an ARP request is.	0x000000000000	0.0.0.0	variable	class dependent	A
247	If a host needs to synchronize its clock with another host, it sends a	timestamp-request message	source-quench message	router-advertisement message	None of the choices are correct	C
248	Who can send ICMP error-reporting messages?	routers	destination hosts	routers or destination hosts	None of the choices are correct	B
249	Multicast link state routing uses the which kind of tree approach.	source-based	group-shared	destination-based	None of the choices are correct	A
250	MOSPF is a	data-driven protocol	command-driven protocol	both data- and command-driven	None of the choices are correct	A
251	In the stop-and-wait protocol, the send window size is _____ and the receive window size is _____ where n is related to the number of bits in the sequence.	1, 1	1, n	n, 1	n, n	A

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
252	In the go-back-N protocol, the send window size is _____ and the receive window size is _____, where n is related to the number of bits in the sequence. number.	1, 1	1, n	n, 1	n, n	C
253	In the selective-repeat protocol, the send window size is _____ and the receive window size is _____, where n is related to the number of bits in the sequence.	1, 1	1, n	n, 1	n, n	D
254	The checksum in SCTP is	16 bits	32 bits	64 bits	128 bits	B
255	The association identifier in SCTP cannot be a combination of logical and port addresses because of	multistream services	multihoming service	multistream and multihoming services	None of the choices are correct	B
256	Network programming needs information to be in _____ byte order.	host	network	client	None of the choices are correct	B
257	SOCK_STREAM sockets are used by	UDP process	TCP Process	SCTP process	None of the choices are correct	B
258	SOCK_DGRAM sockets are used by _____ processes.	UDP process	TCP Process	SCTP process	None of the choices are correct	A
259	SOCK_RAW sockets are used by _____ processes.	UDP process	TCP Process	SCTP process	None of the choices are correct	D
260	IPv6 allows _____ security provisions than IPv4.	more	less	same	None of the choices are correct	A
261	The web standerd allows programmers on many different computer platforms to dispersed format and display the information server These programs are called	Internet Explorer	HTML	Web Browser	None of thse	C
262	Which of following tag will create a number/order list?	<UL>	<OT>	<OL>	None of these	C
263	<DIR> tag can have only	12 characters	18 characters	22 characters	24 characters	D
264	The optical amplifier will	Converts optical signal to electrical signal, reshape and convert back to Optical	Re-amplifies the origional signal	Both A and B	None of these	
265	Optical Regenerator will	Converts optical signal to electrical signal, reshape and convert back to Optical	Re-amplifies the origional signal	Both A and B	None of these	
266	Interface type T1 can support data rate in Mbps	1.544	44.736	2.048	155.52	A
267	Interface type T3 can support data rate in Mbps	1.544	44.736	2.048	155.52	B
268	Which of the following command of SMTP responsible for terminate SMTP connection	HELO	STOP	QUIT	NOOP	C
269	SAN stands for	Service Area Network	Storage Area Network	Standard Area Network	Super Area Network	B
270	NAS stands for	Network Analysis Storage	Network Attached Storage	Nework attached service	None of these	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
271	Which of the following statements is/are true? S1: The transport layer is responsible for delivery messages between hosts that may or may not be on different networks S2: The network layer is responsible for delivery messages between processes	only S1	Only S2	Both S1 and S2	None of these	**D**
272	Which of the following devices translates dissimilar network protocols?	Router	Repeater	Switch	Gateway	**D**
273	Which of the following statements is/are true? S1: MAC addresses are used to address individual devices on the same LAN S2: MAC addresses are assigned by the manufecturer and are globally unique	S1 true, S2 false	S1 false, S2 true	Both S1 and S2 are true	Both are false	**C**
274	An advantages of a switch over a hub would be	Guarantees wire speed	Connects multiple segments	Segments by MAC addresses	Runs BGP transport protocol	
275	Which of the following statements is/are true? S1: Network layer dividing the transmitted bit stream into frames S2: Network layer determining which route through the subnet to use	S1 true, S2 false	S1 false, S2 true	Both S1 and S2 are true	Both are false	**B**
276	If the divisor is binary equivalent of X8 + X3 + X + 1 then CRC will be	2 bit	3 bit	8 bit	9 bit	**C**
277	A virtual connection for the ATM network is defined by a pair of	VPI and VCI	VCI and VPP	VCP and VPP	None of these	**A**
278	The channel capacity is 125 MBPS, maximum packet size is 1000 bytes, round trip time is 100microsecond, then transmission time is	1 microsecond	8 microsecond	1 milisecond	8 milisecond	**B**
279	The channel capacity is 125 MBPS, maximum packet size is 1000 bytes, round trip time is 100microsecond, then ulilization of the sender is	5%	2.50%	7.40%	8.70%	**C**
280	The distance between A and B is 4000km, propagation delay is 5microsecond/km for the both the links. The data rate between A to B is 100kbps and full duplex kind. Data frames are size of 1000 bits long and ACK frames are negligible.Window size is 4. If RTT between A and C is 50ms then what is the distance between B and C?	1000 KM	2000 KM	3000 KM	4000 KM	**A**
281	The distance between A and B is 4000km, propagation delay is 5microsecond/km for the both the links. The data rate between A to B is 100kbps and full duplex kind. Data frames are size of 1000 bits long and ACK frames are negligible.Window size is 4. What is the required transmission rate between B and C so the buffer of the node B are not flooded?	100 kbps	150 kbps	200 kbps	250 kbps	**A**
282	Consider 100baseT cable Ethernet with an efficiency of 50%. Assume frame length of 1kB and propagation speed in the cable is 2x108 m/sec. Calculate the distance between a node and the hub	4 km	4 km	2.7 km	4.8 km	**B**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
283	Consider a token ring consisting of 20 stations with 10 mt distance between each. If propagation speed is 2x108 m/sec. and per station 5 bit delay, then what will be ring latency if ring bandwidth is 10Mbps?	7 microsecond	10 microsecond	11 microsecond	None of these	**B**
284	A 4 Mbps token ring has token holding time value of 10msec. What is the longest frame (in bytes) that can be sent on this ring?	40000	40000	5000	None of these	**C**
285	Let TCP operates over a 10Gbps link. If TCP uses the full bandwidth continuously, how long would it take the sequence numbers to wraparound completely?	4 ms	0.4 second	1 second	None of these	**B**
286	if TCP RTT is currently 20 ms and ACK comes in after 30 ms then what is the timeout period for the next transmission? Use alpha=0.9 and Beta=2.	84 ms	116 ms	21 ms	29 ms	**A**
287	Assume a TCP implementation over a 10Gbps link with one way delay of 80ms. If TCP receiver window is 2MB and TCP send 1kB packet then how many RTTS does it take until slow start opens the congestion window to 2MB? Assume no congestion and no packet lost.	11 RTT	10 RTT	8 RTT	14 RTT	**A**
288	State true (T) and false (F) of the following Persistent connection is default in HTTP 1.1 HTTP supports proxy servers HTTP uses well known port 23	TTF	TFF	TTT	FTF	**A**
289	There are 15 users communicationg to each other. How many pairs of the keys are required to authenticate the communication is symmetric key is used?	15	30	105	225	**C**
290	In which way does a Firewall increase the security of a VPN?	Configured to allow certain ports to access the VPN	Physically protects the network from catching fire	Restrict the use of specific application software on the network	Limits the speed in which transmission of data is carried out	**C**
291	The initial 8 bits of the IP packets are 01000010, Then what will be the version of IP version	IP version 4	IP version 6	Both	None of these	**A**
292	An IP pcaket has arrived with the first few hexadecimal digits as below, then how many hops this packet can travels? 450000280001000000102……	Only 1 Hop	Only 2 Hop	Only 3 Hop	None of these	**A**
293	Kerberos is a	Authentication protocol	Security protocol	Integrity protocol	None of these	**A**
294	If transmitted bit sequence is 111000111000 the which of the following is a example of burst error	111100111000	111000111100	111010111000	111111111000	**D**
295	Xpointer specification essentially extends you which specification	XHTML	XL Link	Xpath	Xreference	**C**
296	DOM is a	Coding style	Document model , a specification	Document Object Model, a parser	None of these	**C**
297	If we have to process huge XML document to read it and to insert the records in to the database, and there are limited memory resources, which parsing API would you use?	DOM	SAX	Either A or B	None of these	**B**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
298	XML Schema divides data types into two main categories they are	Simplex, Complex	Machine dependent, machine Independent	Standard, custom	String, Number	D
299	Which is the documents that describes how the data will be exchanged, and acts as a kind of contract between the sender and the receiver?	Schema	DTD	XSLT stylesheet	Both A and B	
300	What is one of the better known early implementation of XML based communication protocol?	SOAP	RemoteXML	XML-RPC	None of these	A
1	Which one of the following is universal gate?	AND	NOR	NOT	XOR	B
2	Advantage of synchronous sequential circuit over asynchronous ones is	faster operation	ease of avoiding problems due to hazards	lower hardware requirement	better noise immunity	C
3	Which of the following is the first integrated logic family	RTL	DTL	TTL	MOS	A
4	The functional capacity for VLSI devices is	1 to 11 gates	12 to 99 gates	100 to 10000 gates	More than 10000 gates	D
5	A shift register can be used for	Parallel to serial conversion	Serial to parallel conversion	Digital delay line	All of these.	D
6	Parallel adders are	Combinational logic circuit.	Sequential logic circuit.	Both (a) & (b)	None of above.	A
7	VLSI stands for	Very large scale integration	Very logical switch interface	Very large switch integration	None of these	A
8	2's complement of any binary number can be calculated by	adding 1's complement twice	adding 1 to 1's complement	subtracting 1 from 1's complement.	calculating 1's complement and inverting Most significant bit	B
9	Which of the number is not a representative of hexadecimal system	1234	ABCD	1001	DEFH	D
10	The values that exceed the specified range can not be correctly represented and are considered	Overflow	Carry	Parity	Sign value	A
11	In ANSI/IEEE Standard 754 ' Mantissa ' is represented by _____ bits	8-bits	16-bits	23-bits	64-bits	C
12	BCD to 7-Segment decoder has	3 inputs and 7 outputs	4 inputs and 7 outputs	7 inputs and 4 outputs	7 inputs and 4 outputs	B
13	The decimal 8 is represented as _____ using Gray Code.	11	1100	1000	1010	B
14	A NAND gate's output is LOW if	all inputs are LOW	all inputs are HIGH	any input is LOW	any input is HIGH	B
15	NOR gate is formed by connecting _____	OR Gate and then NOT Gate	NOT Gate and then OR Gate	AND Gate and then OR Gate	OR Gate and then AND Gate	A
16	The AND Gate performs a logical _____function	Addition	Subtraction	Multiplication	Division	C
17	The OR gate performs Boolean _____.	multiplication	subtraction	division	addition	D
18	The output of an AND gate is one when _____	All of the inputs are one	Any of the input is one	Any of the input is zero	All the inputs are zero	A
19	A NOR's gate output is HIGH if	all inputs are HIGH	any input is HIGH	any input is LOW	all inputs are LOW	D
20	the boolean expression AB'CD' is	a sumterm	a product term	a literal term	always 1	B
21	the boolean expression A + B' + C is	a sum term	a literal term	a product term	a complemented term	A
22	A (bar)B +A(bar)BC(bar)+AC is an example of _____	Product of sum form	Sum of product form	Demorgans law	Associative law	B

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
23	An example of SOP expression is	A + B(C + D)	A'B + AC' + AB'C	(A' + B + C)(A + B' + C)	both (a) nad (b)	**B**
24	Half-Adder Logic circuit contains _____ XOR Gates	1	2	4	6	**A**
25	Using multiplexer as parallel to serial converter requires connected to the	A parallel to serial converter circuit	A counter circuit	A BCD to Decimal decoder	A 2-to-8 bit decoder	**A**
26	A demultiplexer has	one input and several outputs	one input and one output	several inputs and several outputs	several inputs and one output	**A**
27	The main use of the Multiplexer is to	Select data from multiple sources and to route it to a single Destination	Select data from Single source and to route it to a multiple Destinations	Select data from Single source and to route to single destination	Select data from multiple sources and to route to multiple destinations	**A**
28	The PROM consists of a fixed non-programmable _____ Gate array configured as a	AND	OR	NOT	XOR	**A**
29	Tri-State Buffer is basically a/an _____ gate.	AND	OR	NOT	XOR	**C**
30	GAL is an acronym for _____.	NOT	General Array Logic	Generic Array Logic	Generic Analysis Logic	**A**
31	ASCII code is a …… bit code.	1	2	7	8	**C**
32	8421 codes is also called as.	Gray code	ASCII code	excess 3-code	BCD code	**D**
33	ECL stands for	a) Emitter control logic	Emitter complementary logic	Emitter coupled logic	Emitter coded logic	**C**
34	When an inverter is placed between both inputs of SR flip flop the resulting flip flop is	JK Flip flop	D Flip flop	T Flip flop	Master Slave JK Flip flop	**B**
35	The boolean function AB+A(B+C) +B(B+C) is equivalent to	A+BC	B+A	AB+BC	B+AC	**D**
36	10s complement of 428 is	571	572	-571	-572	**B**
37	when PUSH is executed , the stack pointer register is decremented by	1	2	0	Offset value	**B**
38	Sum-of-Weights method is used	to convert from one number system to other	to encode data	to decode data	to convert from serial to parralel data	**A**
39	which of the following rules states that if one input of an AND gate is always 1, the output is	A +1 =1	A +A =A	A.A = A	A.1= A	**C**
40	Which one of the following is NOT a valid rule of Boolean algebra?	A = A'	AA = A	A + 1 = 1	A + 0 = A	**A**
41	The binary value ' 1010110 ' is equivalent to decimal	86	87	88	89	**A**
42	2's complement of 5 is	1101	1011	0101	1100	**C**
43	The Extended ASCII Code (American Standard Code for Information Interchange) is a code	2-bit	7-bit	16-bit	16-bit	**B**
44	One advantage TTL has over CMOS is that TTL is	less expensive	not sensitive to electrostatic discharge	faster	more widely available	**B**
45	8-bit parallel data can be converted into serial data by using multiplexer	4-to-2	4-to-4	8-to-1	8-to-4	**C**
46	The boolean expression X = AB + CD represents	two ORs ANDed together	a 4-input AND gate	two ANDs ORed together	an exclusive-Or	**C**
47	The expression _____ is an example of Commutative Law for Multiplication.	AB+C = A+BC	A(B+C) = B(A+C)	AB=BA	A+B=B+A	**C**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
48	(A+B).(A+C) = _____	B+C	A+BC	AB+C	**AC+B**	**B**
49	A.(B + C) = A.B + A.C is the expression of _____	Demorgan's Law	Commutative Law	Distributive Law	Associative Law	**C**
50	A.(B.C) = (A.B).C is an expression of _____	Demorgan's Law	Distributive Law	Commutative Law	Associative Law	**D**
51	A non-standard POS is converted into a standard POS by using the rule	A+A(bar) = 1	AA(bar) =0	1+A=1	A+B = B+A	**A**
52	In a 4-variable K-map, a 2-variable product term is produced by	a 2-cell group of 1s	a 8-cell group of 1s	a 4-cell group of 1s	a 4-cell group of 0s	**C**
53	The 3-variable Karnaugh Map (K-Map) has _____ cells for min or max terms	4	8	12	16	**B**
54	The 4-variable Karnaugh Map (K-Map) has _____ cells for min or max terms	4	8	12	16	**D**
55	On a Karnaugh map, grouping the 0s produces	a POS expression	a SOP expression	a "don't care" condition	AND-OR logic	**A**
56	Which gate is best used as a basic comparator?	NOR	OR	exclusive-OR	AND	**C**
57	A particular Full Adder has	exclusive-OR	3 inputs and 3 output	2 inputs and 3 output	2 inputs and 2 output	**A**
58	For a 3-to-8 decoder how many 2-to-4 decoders will be required?	4	3	2	1	**C**
59	The range of Excess-8 code is from _____ to _____	+7 to -8	+8 to -7	+9 to -8	-9 to +8	**A**
60	GAL can be reprogrammed because instead of fuses _____ logic is used in it	E^2CMOS	TTL	CMOS+	None of the given options	**A**
61	A latch has _____ stable states	One	Two	Three	Four	**B**
62	An S-R latch can be implemented by using _____ gates	AND, OR	NAND, NOR	NAND, XOR	NOT, XOR	**B**
63	The Quad Multiplexer has _____ outputs	4	8	16	12	**A**
64	Half adder consist of. ……&…..Gates	EX-OR&AND	EX-OR&OR	EX-OR&NOT	None of this	**A**
65	In half adder EX-OR gate O/P is	Carry	Remainder	Sum	None of this	**C**
66	For getting an output from an XNOR gate, its both inputs must be	high	low	at the same logic level	at the opposite logic level	**C**
67	Which of the following expressions is not equivalent to x'?	x NAND X	x NOR x	x NAND 1	x NOR 1	**D**
68	The complement of a variable is always	1	0			**C**
69	The difference of 111 - 001 equals	100	111	001	110	**D**
70	In the binary number ' 10011 ' the weight of the most significant digit is	2^4(2 raise to power 4)	2^3 (2 raise to power 3)	2^0 (2 raise to power 0)	2^1 (2 raise to power 1)	**A**
71	2's complement of hexadecimal number B70A is	B70B	B709	48F6	48F5	**C**
72	The 4-bit 2's complement representation of ' -7 ' is	111	1111	1001	110	**C**
73	The output of the expression F=A+B+C will be Logic _____ when A=0, B=1, C=1. the symbol ' +	Undefined	One	Zero	10 (binary)	**B**
74	Fan-out is specified in terms of	voltage	current	watt	unit loads	**D**
75	Generally, the Power dissipation of _____ devices remains constant throughout their operation	TTL	CMOS 3.5 series	CMOS 5 Series	Power dissipation of all circuits increases with time.	**A**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
76	A logic circuit with an output X = A(Bar)BC+AB(Bar) consists of .	two AND gates, two OR gates, two inverters	three AND gates, two OR gates, one inverter	two AND gates, one OR gate, two inverters	two AND gates, one OR gate	**C**
77	To implement the expression AB(bar)CD+ ABC(bar)D+ ABCD (bar), it takes one OR gate and	three AND gates and three inverters	three AND gates and four inverters	three AND gates	one AND gate	**A**
78	Determine the values of A, B, C, and D that make the sum term A(bar) + B+C(bar)+D equal to zero.	A = 1, B = 0, C = 0, D = 0	A = 1, B = 0, C = 1, D = 0	A = 0, B = 1, C = 0, D = 0	A = 1, B = 0, C = 1, D = 1	**B**
79	According to Demorgan's theorem: (A+B+C)bar = _____	A.B.C	A+(B.C)Bar	A(Bar).B(Bar).C(Bar)	A.B(Bar)+C	**C**
80	A SOP expression is equal to 1	All the variables in domain of expression are present	At least one variable in domain of expression is present.	When one or more product terms in the expression are equal to 0.	When one or more product terms in the expression are equal to 1.	**D**
81	Adjacent 1s detector circuit will have active low output for the input	1101	1010	0110	1011	**B**
82	If ' 1110 ' is applied at the input of BCD-to-Decimal decoder which output pin will be activated:	2nd	3rd	4th	No output will be activated	**C**
83	The _____ Encoder is used as a keypad encoder.	2-to-8 encoder	4-to-16 encoder	BCD-to-Decimal	Decimal-to-BCD Priority	**C**
84	Subtract (1010)2 from (1101)2 using 1s complement	(1100)2	(0011)2	(1001)2	(0101)2	**B**
85	Conversion of hexadecimal number (69)16 to octal equivalent will give	451	351	251	151	**A**
86	The difference between two decimal numbers 87 and 63 in binary format will be	10100	11000	10010	None	**A**
87	Which of the following functions implements the Karnaugh map shown below?	a) A'B+CD	D(C+A) (C+D)(C'+D)+(A+B)		AD+A'B	
88	The number of full and half-adders required to add 16-bit numbers is	4 half-adders, 12 full-adders	16 half-adders, 0 full-adders	8 half-adders, 8 full-adders	1 half-adder, 15 full-adders	**D**
89	Which of the following logic families has the highest noise immunity?	RTL	DTL	TTL	HTL	
90	Which of the following Boolean algebra statements represents commutative law?	(A+B)+C=A(B+C)	A.(B+C)=(A.B)+(A.C)	A+B=B+A	A+A=A	**C**
91	Let X and Y be the inputs and Z be the output of XOR gate. The value of Z is given by	X+Y	X.Y	(X.Y)'	X'Y+XY'	**D**
92	If we multiply ' 723 ' and ' 34 ' by representing them in floating point notation i.e. by first,	24.582	2.4582	24582	0.24582	**A**
93	Which one is true:	Power consumption of TTL is higher than of CMOS	Power consumption of CMOS is higher than of TTL	Both TTL and CMOS have same power consumption	depends on no. of gates in the circuit.	**A**
94	3.3 v CMOS series is characterized by _____ and _____as compared to the 5 v CMOS	Low switching speeds, high power dissipation	Fast switching speeds, high power dissipation	Fast switching speeds, very low power dissipation	Low switching speeds, very low power dissipation	**C**
95	The minterm expansion for F(A,B,C) = (A + B + C)(A + B' + C')(A' + B + C')(A' + B' + C) is	F (A,B,C) = Pi M(0,3,5,6)	F(A,B,C) = Summation m(0,3,5,6)	F(A,B,C) = Summation m(0,3,5,6)	F(A,B,C) = Summation m(1,2,4,7)	**A**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
96	The binary numbers A = 1100 and B = 1001 are applied to the inputs of a comparator. What are	A > B = 1, A < B = 0, A < B = 1	A > B = 0, A < B = 1, A = B = 0	A > B = 0, A < B = 1, A = B = 1	A > B = 1, A < B = 0, A = B = 0	**C**
97	Two 2-input, 4-bit multiplexers 74X157 can be connected to implement a multiplexer.	4-input, 8-bit	4-input, 16-bit	2-input, 8-bit	2-input, 4-bit	**C**
98	What will be the decimal equivalent of 111011.10	48.625	59.487	48.487	59.625	**D**
99	What will be the hexadecimal equivalent of decimal number 54977	D6C1	DC61	D6C5	none	**A**
100	The sum of octal numbers (25)8 + (52)8 +(33)8 is :	(90)10	(132)8	(5A)16	All above	**D**
1	Transfer between registers takes place when	There is an interrupt	There is a control signal	There is an execution	There is a fetch	**D**
2	Which technique allows DMA controller to transfer one data word at a time.	Bus transfer	cycle stealing	Bus grant	bit stealing	**B**
3	An associative memory is also called	Content addressable memory	Virtual memory	Main memory	Secondary memory	**A**
4	Advantage of CMOS technology over a MOS is	lower power dissipation	greater speed	smaller chip size	fewer masks for fabrication	**A**
5	Program counter contains	The address of the current instruction	Data which is to be processed	The address of the next instruction to be executed	Counter value that is used in the program	**C**
6	CD-ROM is a	Semiconductor memory	Memory register	None of the above	None of the above	**D**
7	Actual execution of instructions in a computer takes place in	ALU	Storage unit	None of the above	None of the above	**A**
8	Which of the following is used as a primary storage device	Magnetic tape	PROM	Floppy disk	None of the above	**B**
9	Information retrieval is faster from	Floppy disk	Magnetic tape	Hard disk	None of the above	**C**
10	The communication line between the CPU, memory and peripherals is called a	Bus	line	media	none of these	**A**
11	The main three component of a digital computer system are	memory, IO, DAM	ALU CPU Memory	Memory CPU IO	CU ALU Registers	**C**
12	Which register is responsible for computation in any computer system ?	Special Register	C Register	B Register	Accumulator	
13	ALP stands for	All Language Programming	Assembly Language Programming			**B**
14	RTL stands for	Resgister Transfer Language	Register Transistor Language	Register Translation Language	Register Transformation Language	**A**
15	Which of the following statement is true ?	ROM is read / write memory	PC points to the last instruction that was executed	All instructions affect the flag	All instructions affect the flag	
16	Which of the following are registers ?	Accumulator	Stack Pointer	Program Counter	**All of the above**	**D**
17	The main difference(s) between a CISC and a RISC processor is/are that a RISC processor typically	is easier to implement using hard-wired control logic	has fewer instructions	has more registers	has fewer addressing modes	**B**
18	The total size of address space in a virtual memory system is limited by	the length of MAR	the available secondary storage	the available main memory	all of above	**B**
19	Which of the following requires value of data with the instruction	Direct	indirect	base index	Immediate	

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
20	The access method used for magnetic tape is _____	Direct	Random	Sequential	None of the above	C
21	Which is an important data transfer technique ?	CPU	DMA	CAD	None of these	B
22	Which disk read the data by reflecting pulses of laser beams on the surface ?	Magnetic disk	Soft disk	Floppy disk	Optical disk	D
23	UART stands for	Universal asynchronization receiver/transmitter	Universal asynchronous receiver/transmitter	United asynchronous receiver/transmitter	Universal automatic receiver/transmitter	B
24	_____operations are the results of I/O operations that are written in the computer program	Programmed I/O	DMA	Handshaking	Strobe	A
25	DMAC stands for	Direct memory accumulator controller	Direct memory access controller	Direct memory access content	Direct main access controller	B
26	Which may be classified as a processor with the direct memory access capability that communicates	DCP	IOP	Both a & b	None	B
27	Which is used for this and known as high speed buffer exist with almost each process?	Primary	RAM	Cache	None of these	C
28	___ decrements SP (the stack pointer) by two and then transfers a word from the source operand to	Pop	CALL	MOV	PUSH	
29	Data bus is	Uni-directional	Bi-directional	Non-directional	None of the given	B
30	Control bus_____	is Not Important.	is Important	is bidirectional	is unidirectional	D
31	Which of the following is an invalid addressing mode ?	immediate	direct	register	micro	
32	Which is the invalid instruction type ?	0-address	Binary	1-address	2-address	
33	MRI stands for	Memory register instruction	Memory regular instruction	Memory reference instruction	Most register instruction	
34	When an interrupt occurs, following will take place	Execution cycle	Register cycle	Fetch cycle	Interrupt cycle	
35	RISC stands for	Reduced Instruction Set Computer	Register Instruction Set Computer	Register Interrupt Set Computer	Reduced Interrupt Set Computer	A
36	The language which is understandable by the computer system is known as	ALP	Machine language	OPCODE	Higher language	
37	Which of the following is not a valid expression notation ?	Prefix notation	Postfix notation	Outfix notation	Infix notation	C
38	Expressions can be evaluated with the help of which data structure ?	Stack	Queue	Register	Accumulator	A
39	Which is considered as the most basic operation in a computer system ?	Instruction	Microoperation	Pseudoinstruction	Minioperation	
40	Stack is nothing but a set of	reserved ROM address space	reserved RAM address space	reserved IO address space	**none of the above**	
41	If negative numbers are stored in 2's complement system, the range of numbers that can be stored	-128 to +128	-128 to +127	-127 to +128	-127 to +127	B
42	To achieve parallelism one needs a minimum of	2 processors	3 processors	4 processors	none of the above	A
43	Any instruction should have at least	2 operands	1 operands	3 operands	none of the above	
44	Which of the following is not typically found in the status register ?	Overflow	Zero result	none of the above	Negative result	C
45	Which of the following architecture is not suitable for realizing SIMD ?	Vector Processor	Array processor	Von Neumann	All of the above	

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
46	Which of the following units can be used to measure the speed of a computer ?	SYPS	BIPS	BAUD	FLOPS	
47	Bubble memory is preffered over floppy disks because	of their higher transfer rate	the cost to store a bit is less	consume less power	the cost to store a bit is high	
48	All register reference instruction that use accumulator are	Implied mode instruction	Indirect mode instruction Immediate mode instruction	Based index addressing mode instruction		
49	A certain processor supports only the immediate and the direct addressing modes. Which of the	Pointers Records	Arrays	Records	Recursive procedures with local variable	
50	when PUSH is executed , the stack pointer register is decremented by	1 0	2	0	Offset value	
51	The operating mode of I/O devices is_____ for different device	Same Optimum	Different	Optimum	Medium	
52	There are 2 ways in which addressing can be done in memory and I/O device	Isolated I/O	Memory-mapped I/O	Both a & b	None of these	
53	If CPU and I/O interface share a common bus than transfer of data b/w 2 units is said to be	Synchronous	Asynchronous	Clock dependent	Decoder independent	
54	_____processor has to check continuously till device becomes ready for transferring the data	Interrupt-initiated I/O	DMA	IOP	DCP	
55	When two devices in the system want to use the same IRQ line then what will happen?	An IRQ Conflict	An IRQ Crash	An IRQ Collision	An IRQ Blockage	
56	CX register mostly use a	Counter register	Flag register	Base register	Desination register	
57	When the operand of DIV instruction is of 16-bits then implied dividend will be stored in	AX register	The concatenation of DX and AX	The concatenation of ES and AX	The concatenation of DS and BX	
58	The source register in OUT is	AL or AX	AL or AX	CL or CX	DL or DX	
59	To transfer control back the RET instruction take	1 argument	1 argument	3 arguments	No arguments	
60	In assembly the CX register is used normally as a register	source	pointer	index	counter	
61	When a 16 bit number is divided by an 8 bit number, the dividend will be in	AX	BX	CX	DX	**A**
62	A 32bit address register can access upto .....of memory	2 GB	4 GB	8 GB	8 GB	**B**
63	When the subprogram finishes, the _____ retrieves the return address from the	CALL instruction	POP instruction	Jump instruction	RET instruction	**B**
64	In “total: dw 0 ” Opcode total is a _____	Literal	Variable	Label	Starting point	**C**
65	In “mov ax, 5 ” is _____Addressing Mode	Immediate	Indirect	Direct	Register	**A**
66	In “ mov [SI], AX ” is _____ Addressing Mode	Base Register Indirect	Indirect	Indexed Register Indirect	Immediate	**C**
67	In “ mov ax, [bx - Si] ” is_____ Addressing Mode	Base Register Indirect	Indirect	Direct	Illegal	**A**
68	A computer with 32 bit data bus uses 4 K X 8 static RAM memory chips. The smallest memory this	32 K	16 K	8 K	24 K	
69	PSW does not have following flag	Zero	Sign	Overflow	Positive	**B**
70	Instructions which are not meant for execution are known as	Fakeinstructions	Extrainstruction	Noninstruction	Pseudoinstructions	

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
71	Increment operation is incorporated with which instruction ?	IZS	ISZ	ICR	CIR	
72	Following cannot be part of an instruction	Lable	Opcode	Comment	Data	**C**
73	The fastest memory available on earth is	RAM	Cache	ROM	Register	**B**
74	The instruction used to shift right the accumulator content by one bit through the carry flag bit is	RLC	RAL	RRC	RAR	**D**
75	The only interrupt that is edge triggered is	INTR	TRAP	RST 7.5	RST 5.5	**A**
76	Which is the non-maskale interrupt ?	TRAP	RST 7.5	INTR	**RST 6.5**	**C**
77	A typical application of MIMD is	railway reservation	weather forecasting	matrix multiplication	all of above	
78	SIMD can be used for	railway reservation	parallel processing	matrix multiplication	all of above	**B**
79	The advantage of single bus over multibus is the	Low cost	Parallel operation	High operating speed	All of the above	**A**
80	The addressing mode used in the instruction PUSH B is	Direct	Register	Register Indirect	Immediate	**A**
81	The addressing mode used in the instruction ADD X, Y is	Absolute	Immediate	Indirect	Indexed	**C**
82	When a very large number is divided by very small number so that the quotient is larger than the	Divide logical error	Divide overflow error	Divide syntax error	An illegal instruction	**B**
83	There is a central register in every processor called the _____ and The word size of a processor is	accumulator,accumulator	data bus,accumulator	accumulator, Address Bus	accumulator,memory	**C**
84	_____does not hold data but holds the address of data	Pointer, Segment, or Base Register	Pointer, Index, or Base Register	General Registers	Instruction Pointer	**B**
85	Memory references are processed in which pass of the assembler ?	1 pass	2 pass	3 pass	4 pass	**B**
86	Address symbol table is built in which pass of the assembleer ?	1 pass	2 pass	3 pass	4 pass	**A**
87	Fetch…Decode….Execute phases are overlapped to spped up the overall execution	Vector Processing	Parallel Execution	Pipelining	Parallel Processing	**C**
88	Content of a register is shifted in circular manner for following instruction	CIL	ICL	ISZ	SIZ	**A**
89	Which notation is considered to be the best for execution of an instruction ?	Prefix notation	Infix notation	Postfix notation	Outfix notation	**C**
90	The speed imbalance between memory access and CPU operation can be reduced by	Memory Compaction	Memory interleaving	Reducing the size of memory	Inreasing the size of memory	**D**
91	In a vector interrupt the	branch address is assigned to a fixed location in memory	interrupting source supplies the branch information to the processor through interrrupt vector	branch address is obtained from register in the processor	none of the above	**D**
92	Which of the following instruction may be used to clear the content of accumulator ?	CLR A	ORA A	SUB A	MOV A, 00h	**A**
93	Which of the following is the typical characteristic of RISC machine ?	Instructions taking multiple cycles	Highly pipelined	Instructions interpreted by microprogramme	None of above	**D**
94	A microprogramed control unit	is faster than a hard wired control unit	facilitated easy implementation of new instructions	is useful when very small programs to be run	useally referes to the control unit of a microprocessor	**A**

Sr.	Question	Answer A	Answer B	Answer C	Answer D	Correct Answer
95	Which of the following instruction may be used to save the accumulator value onto the stack ?	PUSH PSW	PUSH A	PUSH SP	POP PSW	**B**
96	Von Neumann architecture is	SISD	SIMD	MIMD	MISD	**A**
97	A computer uses 8 digit mantissaand 2 digit exponent. If a=0.052 and b=28E + 11 then b+a-b will	overflow error	underflow errror	0	5.28E + 11	**C**
98	The most relevant addressing mode to write position independent code is	Direct mode	Indirect mode	Relative mode	Indexed mode	**C**
99	The seek time of a disk is 30 ms. It rotates at the rate of 30 rotations per second. Each track has a	47 ms	50 ms	60 ms	62 ms	**C**
100	The number of instructions needed to add 'n' numbers and store the result in memory using only	n	n-1	n+1	independent of 'n'	**D**