Dr. B.R.Ambedkar Institute of Technology

Recruitment for the Post of Lab Technician (Computer) on Contract Basis

Date of Examination: 30/09/2023 **Exam Time: 03:00 PM - 04:00 PM** **Exam Slot: L1**

ANSWER KEY

#	Question	Answer Key	Remarks
1	The size of a process is limited to the size of A. physical memory B. external storage C. secondary storage D. Process control Block	A	
2	Which one of the following is a visual (mathematical) way to determine the deadlock occurrence? A. Resource allocation graph B. Starvation graph C. Inversion graph D. AND OR graph	A	
3	Which one of the following is the deadlock avoidance algorithm? A. Banker's algorithm B. Round-robin algorithm C. Elevator algorithm D. Kam's algorithm	A	
4	The primary distinction between the short term scheduler and the long term scheduler is A. The length of their queues B. The type of processes they schedule C. The frequency of their execution D. The size of their queues	C	
5	In a timeshare operating system, when the time slot assigned to a process is completed, the process switches from the current state to? A. Suspended state B. Ready state C. Terminated state D. Blocked state	B	
6	The FCFS algorithm is particularly troublesome for A. Operating systems B. Multiprocessor systems C. Time sharing systems D. Multiprogramming systems	C	
7	Which algorithm is defined in Time quantum? A. Shortest job scheduling algorithm B. Round robin scheduling algorithm C. Priority scheduling algorithm D. Multilevel queue scheduling algorithm	B	
8	Swap space is allocated A. As a chunk of disk B. Separate from a file system C. Into a file system D. In a Page table	A	

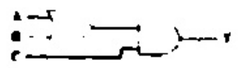
9	The arrival times and Burst times for a set of 6 processes are given in table below: Process ID / Arrival Time / Burst Time P1 / 0 / 3 P2 / 1 / 2 P3 / 2 / 1 P4 / 3 / 4 P5 / 4 / 5 P6 / 5 / 2 If FCFS scheduling Algorithm followed and there is 1 unit of overhead in scheduling the processes, What is the efficiency of the algorithm? A. 70.91% B. 66.91% C. 73.91% D. 84.91%	C	
10	In JavaScript, what will be used for calling the function definition expression A. Function literal B. Function calling C. Function declaration D. Function prototype	A	
11	Browser of Apple is? A. Chrome B. Firefox C. Opera D. Safari	D	
12	In the JavaScript, which one of the following is not considered as an error: A. Syntax error B. Missing of semicolons C. Division by Zero D. Missing of bracket	C	
13	A website is a _____ cookie. A. volatile B. transient C. in transient D. non-volatile	B	
14	In HTML, which attribute is used to create a link that opens in a new window tab? A. src="_blank" B. alt="_blank" C. target="_self" D. target="_blank"	D	
15	An_____CSS is used to apply a unique style to a single HTML element A. CSS B. inline C. internal D. external	B	
16	How can we select an element with a specific Class in CSS? A. # B. . C. $ D. !	B	

17	Which attribute is used for activation of JavaScript? A. button B. checkbox C. url D. submit	A	
18	Unsolicited commercial E-Mail is known as A. Malware B. Spam C. Spyware D. Virus	B	
19	Thesaurus tool in MS Word is used for A. Spelling suggestions B. Grammar options C. Synonyms and Antonyms words D. Design shape	C	
20	Which of the following is known as first commercially produced digital computer? A. ENIVAC B. EDVAC C. UNIVAC D. ADVAC	C	
21	The virus hides itself from getting detected by _____ different ways. A. 2 B. 3 C. 4 D. 5	B	
22	Which of the following is the shortcut key to open the existing presentation in the powerpoint? A. Ctrl + O B. Ctrl + M C. Ctrl + N D. Ctrl + K	A	
23	What was the name of the first microprocessor introduced by Intel? A. Intel 4004 B. Intel 8008 C. Intel 8080 D. Intel Pentium	A	

24	**Which of the following is defined as an attempt to steal, spy, damage or destroy computer systems, networks, or their associated information?** A. Computer security B. Cryptology C. Cyber Attack D. Digital Hacking	C	
25	Pascaline is known as_____ A. Adding Machine B. Multiplication Machine C. Division Machine D. Difference Engine	A	
26	Suppose a circular queue of capacity (n – 1) elements is implemented with an array of n elements. Assume that the insertion and deletion operation are carried out using REAR and FRONT as array index variables, respectively. Initially, REAR = FRONT = 0. The conditions to detect queue full and queue empty are A. Full: (Rear+1) mod n == FRONT, Empty: REAR == FRONT B. Full: (REAR+1) mod n == FRONT, Empty: (FRONT+1) mod n == REAR C. Full: REAR == FRONT, Empty: (REAR+1) mod n == FRONT D. Full: (FRONT+1) mod n == REAR, Empty: REAR == FRONT	A	
27	Which keyword is used to prevent any changes in the variable within a C program? A. immutable B. mutable C. const D. volatile	C	
28	Which of the following is not possible statically in C language? A. Jagged Array B. Rectangular Array C. Cuboidal Array D. Multidimensional Array	A	

29	What will be the output of the following C code? Omit file inclusion error if any.
	`void main(){`
	`int x=1, y=0, z=5;`
	`int a=x && y && z++;`
	`printf( "a=%d z=%d", a, z);`
	`}`
	A. a=0 z=6
	B. a=6 z=5
	C a=0 z=5
	D a=6 z=6
		C	

30	Which of the following application makes use of a circular linked list? A. Recursive function calls B. Undo operation in a text editor C. Implement Hash Tables D. Allocating CPU to resources	D	
31	The postorder traversal of a binary tree is 8, 9, 6, 7, 4, 5, 2, 3, 1. The inorder traversal of the same tree is 8, 6, 9, 4, 7, 2, 5, 1, 3. The height of a tree is the length of the longest path from the root to any leaf. The height of the binary tree above is _____. A. 2 B. 3 C. 4 D. 5	C	
32	Which of the following is not a valid escape code? A. \f B. \w C. \\ D. \?	B	
33	When searching for the key value 60 in a binary search tree, nodes containing the key values 10, 20, 40, 50, 70 80, 90 are traversed, not necessarily in the order given. How many different orders are possible in which these key values can occur on the search path from the root to the node containing the value 60? A. 35 B. 64 C. 128 D. 5040	A	
34	What is the average case time complexity for finding the height h of the binary tree? A. h = O(lglgn) B. h = O(nlgn) C. h = O(n) D. h = O(lg n)	D	

35	**The output 'Y' of the below logic diagram is**  A. Y=AB+C B. Y=(A+B)C C. Y=A+B+C D. Y=A+BC	B	
36	**The truth table below represents the Boolean function:** X | Y | f(X,Y) 0 | 0 | 0 0 | 1 | 0 1 | 0 | 1 1 | 1 | 1 A. X + Y B. Y C. X⊕Y D. X	D	
37	**A toggle operation cannot be performed using a single** A. NOR gate B. NAND gate C. AND gate D. XOR gate	C	
38	**A NOT gate means** A. AND gate followed by an inverter B. NOT gate followed by an OR gate C. OR gate followed by an inverter D. NAND gate followed by an OR gate	C	
39	**Decimal equivalent of Hexadecimal value 16 is** A. $(10)_{10}$ B. $(16)_{10}$ C. $(20)_{10}$ D. $(22)_{10}$	D	
40	**Which of the following statements about BCD are not true?** A. It is 8-4-2-1 weighted code. B. Conversion to and from the decimal system can be done easily. C. Complement of a number can be found easily. D. $(12345678)_{10}$ need 4 bytes in BCD representation.	C	
41	**The binary subtraction 101111 – 010101 is** A. 100100 B. 010101 C. 011010 D. 011001	C	
42	**Binary subtraction of 100101 – 011110 is** A. 111000 B. 000111 C. 010101 D. 101010	B	

43	Consider the following relation schema pertaining to a students database: *Student (rollno, name, address)* *Enroll (rollno, courseno, coursename)* where the primary keys are shown underlined. The number of tuples in the Student and Enroll tables are 120 and 8 respectively. What are the maximum and minimum number of tuples that can be present in (Student NATURAL JOIN Enroll) relation A. 8, 8 B. 120, 8 C. 960, 8 D. 960, 120	A	
44	**Which of the following command is used to delete a table in SQL?** A. Delete B. Truncate C. Remove D. Drop	D	
45	**The architecture of a database can be viewed as the** A. One-Level B. Two-Level C. Three-Level D. Four-Level	C	
46	**DBMS advantage over File System is** A. Data is dependent on programs B. Data redundancy increases C. Data is integrated and can be accessed by multiple programs D. Data is isolated in nature	C	
47	**Which of the following is belong to metadata** A. Data Dictionary B. Table C. E-R Diagram D. View of Database	A	
48	**The database administration function includes** A. Application programming B. Computer operations management C. Database access planning D. User management	C	
49	**E-R modeling technique is a** A. Bottom-up approach B. Top-down approach C. Left-right approach D. Right-left approach	B	
50	**Which of the following is a top-down approach in which the entity's higher level in ER Diagram can be divided into two lower sub-entities?** A. Generalization B. Specialization C. Aggregation D. Agglomeration	B	

51	**The employee information in a company is stored in the relation schema below:** **Employee(name, sex, salary, deptname)** **Consider the sql query below:** **select deptname from Employee where sex = 'M'** **group by deptname having avg(salary) > (select avg(salary) from Employee);** **It returns the name of the departments in which the average salary** A. is more than the average salary in the company B. of the male employees is more than the average salary of all the male employee in the company C. of the male employees is more than the average salary of the employees in the same department D. of the male employees is more than the average salary in the company	D	
52	Which TCP/IP protocol is used for remotely accessing and controlling another computer over a network? A. HTTP B. SMTP C. SSH D. DNS	C	
53	What does each packet contain in a virtual circuit network? A. only source address B. only destination address C. full source and destination address D. a short VCID (Virtual Circuit Identifier) number	D	
54	In original ARPANET, _____were directly connected together. A. IMPs B. Host Computer C. Routers D. Networks	A	
55	The protocol data unit (PDU) for the application layer in the Internet stack is A. Segment B. Frame C. Message D. Datagram	C	
56	The time required to examine the packet's header and determine where to direct the packet is part of _____ A. Processing delay B. Queuing delay C. Transmission delay D. Propagation delay	A	
57	What is the purpose of ICMP in TCP/IP? A. To send control messages and error reporting B. To establish connections between devices C. To encrypt data packets D. To control network traffic	A	

58	In a mesh topology, how many physical links are required for each device to connect to every other device? (Assume N is the number of devices) A N B N+1 C N(N+1)/2 D. N(N-1)/2		Typing Error hence this question is treated as Null and Void
59	How is a single channel shared by multiple signals in a computer network? A. Multiplexing B. Phase modulation C. Analog modulation D. Digital modulation	A	
60	Transmission delay does not depend on _____ A. Packet length B. Distance between the routers C. Transmission rate D. Bandwidth of medium	C	

Signature of Controller of Examination

* Please cross verify with the keys provided by department also