GOVERNMENT OF KARNATAKA KARNATAKA SCHOOL EXAMINATION AND ASSESSMENT BOARD MODEL QUESTION PAPER-2

Class : II PUC Subject: Computer Scie	ence (41)		Academic Year: 2024-25 Maximum marks : 70				
Time : 03 Hrs.			No. of Questions: 44				
 Instructions: (a) The question paper has Five parts namely A,B,C,D and E. (b) For Part-A questions, only the first written answers will be considered for evaluation. (c) For question having diagram alternate questions are given at the end of the question paper in a separate section (Part-E) for visually challenged students. 							
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<u>PART – A</u>							
Answer <u>ALL</u> the quest I Select the correct ans 1. Which one of the fo (a) Serial port	tions, each question wer from the choice ollowing transfers eig (b) Parallel port	a carries <u>ONE</u> mark. es given. ght bits of data at a time? (c) PS/2	20 x 1 = 20 (d) USB				
2. Idempotent law sta	ates that						
(a) $X \cdot X = X$	(b) $X \cdot 0 = 0$	(c) X + 1 = 1	(d) $\overline{X} = X$				
3. Given the logic diag		-? the output is					
(a) 1, 0	(b) 1, 1	(c) 0	(d) 1				
4. Statement (A): Arra Statement (B): Arra	ay is collection homo ay is an example for 1	genous elements non-linear data structure					
(a) Bothe A and B a (c) A is True and B	are True (b) is False (d)	A is False and B is True Bothe A and B are False					
5. Identify the syntax class box { private : i };	error in the followin nt x	g program segment					
void main()							
{ box b; }							
(a) Error due(b) Error due(c) Error due	to semicolon missing to semicolon missing to missing public acc	after class definition at the data member declarat ess specifier	ion line				
(d) Error due	to missing protected	access specifier					

6.	 Which of the following statements are correct with respect to function overloading? i) Functions name are same ii) Number of arguments are same iii) Number of arguments are different iv) Data types of arguments are different 				
	 (a) i) and ii) are correct (b) i), ii) and iii) are correct (c) i), iii) and iv) are correct (d) ii) and iv) are correct 				
7.	Which constructor does not accept any argument?(a) Default(b) Parameterized(c) Copy(d) Overloaded				
8.	Another name of derived class(a) Main class(b) Super class(c) Base class(d) Sub class				
9.	Which one of the following is unsupported C++ expression with respect to pointer ptr ? (a) ptr + 80(b) ptr++(c) ptr - 100(d) ptr * 100;				
10.	Each column of a table is identified by distinct header called(a) Record(b) Domain(c) Attribute(d) Tuple				
11.	Which one of the following command belongs to DQL?(a) SELECT(b) CREATE(c) DROP(d) UPDATE				
12.	Correct expansion form of TCP(b) Transfer Control Program(a) Transmission Control Program(b) Transfer Control Program(c) Transfer Control Protocol(d) Transmission Control Protocol				
13.	An example for Full Duplex communication mode(a) Radio(b) Television(c) Telephone(d) Walkie talkie				
14.	Which one of the following is not a web browser(a) Internet Explorer(b) Netscape Navigator(c) Google Chrome(d) Telnet				
15.	Who invented the HTML?(a) Richard Stallman(b) Tim Berners Lee(c) Bruce Perens(d) Erics Raymond				
II	Fill in the blanks choosing the appropriate word/words from those given in the brackets. (Diamond, Information, Oracle, Graph, Foreign, Tree)				
16.	Processed data is called as				
17.	an example for DBMS software				

18. Hierarchical data model organizes the data in ______ like structure

19. The ______ symbol is used to represent relation in ER diagram

20. A ______ key is a field in the relational table, that matches the primary key column of another table

PART-B

II	I	Answer any <u>FOUR</u> questions. Each question carries <u>TWO</u> marks:	4 x 2 =8		
	21.	Prove algebraically that $XY + X\overline{Y} = X$			
	22.	Realize OR gate using NOR gate.			
	23.	What is constructor? Give an example.			
	24.	4. Differentiate between put() and get() functions			
	25.	25. List any two applications of Databases.			
	26.	26. Explain any two arithmetic operators in SQL.			
	27.	Compare DELETE and DROP command in SQL.			
		PART-C			
I	V	Answer any <u>FOUR</u> questions. Each question carries <u>THREE</u> marks:	4 x 3 = 12		
	28.	Explain the characteristics of motherboard.			
	29.	What is non-primitive data structure? Give any two examples.			
	30.	What is a pointer? Explain pointer declaration with syntax and example.			
	31.	Write the basic operations performed on binary files in C++			
	32.	Explain three levels of data abstraction.			
	33.	Define i) Proprietary Software ii) WWW iii) e-commerce			
	34.	Write HTML tags			
		i) To produce link from one web page to another web page			
		ii) To insert image in a web page			
		iii) To add background colour to webpage			
		PART-D			
V		Answer any <u>FOUR</u> questions, each question carries <u>FIVE</u> marks:	4 x 5 = 20		
	35.	Write an algorithm to perform insertion sort method to sort elements.			
	36.	Explain the operations performed on queue.			
	37.	37. Write the applications of OOP.			
	38.	What are the characteristics of friend function?			
	39.	Explain destructor with syntax and example.			
	40.	What is inheritance? Explain single level and multilevel inheritance.			

41. Give the measures for preventing computer virus.

VI Answer any <u>TWO</u> questions, each question carries <u>FIVE</u> marks

- 42. Given the Boolean function $F(A,B,C,D) = \sum (0,1,3,4,5,7,12,13,15)$, Reduce it using K-map.
- 43. Define a class named **rectangle** with following criteria
 - 1) Data members : length, breadth
 - 2) Member functions: **input()** and **output()**
 - 3) Define member functions outside the class to input and output length and breadth of a rectangle

44. Using given SQL table write the appropriate SQL query

Reg. no.	Name	DOB	Marks
40001	MMMM	15-06-2008	501
40002	NNNN	24-04-2008	325
40003	YYYY	10-07-2009	410

- i) To develop the table with above fields
- ii) To find total number of students
- iii) To find highest marks
- iv) To find lowest marks

VII

v) To display all students information

PART-E

(For Visually Challenged Students only)

3. What is the output of the two input AND gate for the inputs X = 1 and Y = 1?

(a) 1 (b) 1, 1 (c) 0 (d) 0, 1
