B24–CS (E) (Th)

Subject Code : 34

2024

COMPUTER SCIENCE (E)

(Theory)

Full Marks : 70
Pass Marks : 21

Time : 3 hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer : 1×4=4

(a) An access point is used to connect

(i) wirefull network

(ii) wireless network

(iii) other network

(iv) All of the above

(b) The _____ section contains the information about the HTML document.

(i) TITLE

(ii) HEAD

(iii) BODY

(iv) HTML

(c) The number of columns denotes the _____ of the table.

(i) cardinality

(ii) degree

(iii) attribute

(iv) field

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(d) _____ displays only the important information by hiding the implementation part.

(i) Inheritance

(ii) Encapsulation

(iii) Abstraction

(iv) Polymorphism

2. Fill in the blanks : 1×4=4

(a) MAC address is composed of _____ hexadecimal digit(s).

(b) _____ is a scripting language that is widely used to add functionality and interactivity to web pages.

(c) In MySQL, data validation can be ensured through _____ while entering data in a table.

(d) _____ is the process of hiding unwanted data, such as restricting access to any member of an object.

3. State whether the following statements are True or False : 1×4=4

(a) An IP address is a unique identifier assigned to a network interface controller.

(b) OR operator requires that all the conditions to be true for inclusion in the result.

(c) The initialization expression contains the statements that need to be executed in each iteration of the loop.

(d) A pointer can be used to point an integer only.

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4. Answer the following questions in *one* word each : 1×8=8

(a) This command is used to verify the connectivity between two computers. What is the command here?

(b) It is a numerical label that is assigned to network devices to identify them uniquely. What is it called?

(c) It is the information to be displayed on the screen like text, pictures, audio, video, etc. What is it called?

(d) This is a list of items, with a description of each item. What is it called?

(e) This attribute is used to define the address of the file to be linked. What is the attribute here?

(f) It is an organized collection of structured information stored electronically in a computer system. What is it called?

(g) It is the command used to display complete information about the fields defined in a table. What is the command here?

(h) It can be defined as a programming model which is based upon the concept of calling procedure. What is it called?

5. Answer the following questions : 2×12=24

(a) What is network protocol?

(b) What is TCP?

(c) What is HTML editor? What are its types?

(d) What is LIKE operator in MySQL?

(e)

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(e) Explain list elements in HTML.

(f) What are the attributes of table tag?

(g) What is the use of BETWEEN clause in MySQL?

(h) Why do we use arrays in computer program? Write the indices of the second and the last elements of the following array declaration :

```
char city [8] = { 'G', 'U', 'W', 'A', 'H', 'A', 'T', 'I' }
```

(i) What is user-defined function? Give an example.

(j) What is dynamic memory allocation?

(k) What will be the output of the following program?

```
int i [ ] = {3, 5, 9, 7}
int * a = i;
printf("%d", * a);
a++;
printf ("%d", * a);
++ * a;
printf ("%d", * a);
```

(l) What is the difference between top-down and bottom-up approach in programming?

6. Answer the following questions : 3×3=9

(a) What are the rules for naming a table in MySQL?

(b) Draw a flowchart for finding the total number of even numbers from a series of numbers.

(c) What is a global variable in C? Why do we need such a variable?

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7. Answer the following questions : 4×3=12

(a) What is the use of <input> tag? Write the syntax of <input> tag. What are its attribute values?

(b) Write a C program to print "I read in class X under SEBA" five times using loop.

(c) What are inner and outer loops? How can we terminate outer loop from a block of the inner loop?

8. Answer the following questions :

(a) Create a table 'Coach' in a database 'Games' with the following fields : 1

Column Name	*Data Type*	*Size*	*Constraints*
CoachID	INT		PRIMARY KEY
CoachName	VARCHAR	20	NOT NULL
Sports	VARCHAR	15	
DOJ	DATE		NOT NULL
Gender	CHAR	1	
Salary	INT		NOT NULL

(b) Add data into the table as follows : 1

CoachID	CoachName	Sports	DOJ	Gender	Salary
1001	Mukund Gogoi	Boxing	2004-09-01	M	40,000
1002	Arnab Duwara	Karate	1999-01-01	M	56,000
1003	Nayan Bora	Arm wrestling	1995-03-29	M	60,000
1004	Devarsh Hazarika	Basket ball	2005-02-28	M	35,000
1005	Chetna Sharma	Swimming	2010-03-31	F	25,000
1006	Lakshmi Devi	Boxing	2012-01-01	F	22,000

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(c) Write a query for the following (***any three***) : 1+1+1=3

(i) Display the maximum and minimum salaries of the coaches.

(ii) Display the number of male and female coaches.

(iii) Display the details of all coaches having name ends with 'i'.

(iv) Display the details of all coaches whose DOJ is in the range 1995–01–01 to 2005–01–01.

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