#### **SECOND YEAR HIGHER SECONDARY EXAMINATION, MARCH 2023**

Time: 2 Hours

#### Part-III COMPUTER SCIENCE

## Maximum: 60 Scores

### PART-I

## A. Answer any five questions from 1 to 6. Each carries 1 score.

1. Name the operator used for dynamic memory allocation.

a) \* b) & c) delete d) new

- 2. The class from which properties are derived is known as.....
- 3. In a linked list the link part of last node contains.....
- 4. Name the protocol used for creating email linking.
- 5. Name the database user who interacts with databases using application programs.a) DBA b) Application programmer c) Sophisticated user d) Naive user
- 6. Unauthorised use of intellectual property right is called.....

### PART-II

### B. Answer any 9 questions from 7 to 18. Each carries 2 score

- 7. Write the comparison between serial and parallel computing.
- 8. Write a note on any two components of SQL.
- 9. Define structure student with the following data members rollno, name, batch, mark
- 10. Explain about container tag and empty tag with example.
- 11. Write html statement to divide the browser window into two sections vertically in the ratio 70:30.
- 12. Write an algorithm to add(push) an item into a stack.
- 13. Write a short note on any four operations on data structures.
- 14. What are the built in functions in JavaScript.
- 15. Explain the following constraints
  - a) UNIQUE
  - b) NOT NULL
- 16. What is a record?
- 17. Explain any two types of web hosting.
- 18. Differentiate static and dynamic data structures.

#### PART-III

## C. Answer any 9 questions from 19 to 29. Each carries 3 score

- 19. What is memory leak. How memory leak can be avoided.
- 20. Explain any three basic concepts of object oriented programming.
- 21. Differentiate between static webpage and dynamic webpage.
- 22. What is the advantages of using SFTP protocol in FTP software.
- 23. Write html code for a webpage to show the following details in yellow background.

## **Components of computer**

- a) Hardware
  - i RAM
  - ii ROM
  - iii Hard disk

## b) Software

- i System Software
- ii Application Software
- 24. What are the different ways to add script in a webpage.
- 25. What are the control structures in JavaScript.
- 26. Explain any three operators in relational algebra.

## 27. Consider the following table

Sl.No	Name	Age	Gender
1	Keerthi	18	F
2	Bipin	16	М
3	Anju	17	F

i. Write SQL query to create above table.

ii. Write SQL query to select the female students from the above table.

28. Name the different types of arrays in PHP. Explain with an example.

29. What is e-governance? List the different types of interactions in e-governance.

# PART-IV

# D. Answer any 2 questions from 30 to 32. Each carries 5 score

30. Write html code to display the following table in a webpage.

Veer	Students		Dass Deveents de	
Year	Registered	Passed	Failed	Pass Percentage
2020	290	250	40	86.2
2021	350	310	40	88.5
2022	460	300	160	65.2

## 31. Define the following terms

- i. Relation
- ii. Tuple
- iii. Degree
- iv. Cardinality
- v. Primary key

32. Explain different cyber crime against individuals.

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