### 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	M
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.

Vone	Students			Daga Daysantaga
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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