Reg. No.

Name :

SECOND YEAR HIGHER SECONDARY EXAMINATION, MARCH 2020

Part – III   Time : 2 Hours

COMPUTER SCIENCE   Cool-off time : 15 Minutes

Maximum : 60 Scores

General Instructions to Candidates :

- There is a 'Cool-off time' of 15 minutes in addition to the writing time.
- Use the 'Cool-off time' to get familiar with questions and to plan your answers.
- Read questions carefully before answering.
- Read the instructions carefully.
- Calculations, figures and graphs should be shown in the answer sheet itself.
- Malayalam version of the questions is also provided.
- Give equations wherever necessary.
- Electronic devices except non-programmable calculators are not allowed in the Examination Hall.

വിദ്യാർത്ഥികൾക്കുള്ള പൊതുനിർദ്ദേശങ്ങൾ :

- നിർദ്ദിഷ്ട സമയത്തിന് പുറമെ 15 മിനിറ്റ് 'കൂൾ ഓഫ് ടൈം' ഉണ്ടായിരിക്കും.
- 'കൂൾ ഓഫ് ടൈം' ചോദ്യങ്ങൾ പരിചയപ്പെടാനും ഉത്തരങ്ങൾ ആസൂത്രണം ചെയ്യാനും ഉപയോഗിക്കുക.
- ഉത്തരങ്ങൾ എഴുതുന്നതിന് മുമ്പ് ചോദ്യങ്ങൾ ശ്രദ്ധാപൂർവ്വം വായിക്കണം.
- നിർദ്ദേശങ്ങൾ മുഴുവനും ശ്രദ്ധാപൂർവ്വം വായിക്കണം.
- കണക്ക് കൂട്ടലുകൾ, ചിത്രങ്ങൾ, ഗ്രാഫുകൾ, എന്നിവ ഉത്തരപേപ്പറിൽ തന്നെ ഉണ്ടായിരിക്കണം.
- ചോദ്യങ്ങൾ മലയാളത്തിലും നല്ലിയിട്ടുണ്ട്.
- ആവശ്യമുള്ള സ്ഥലത്ത് സമവാക്യങ്ങൾ കൊടുക്കണം.
- പ്രോഗ്രാമുകൾ ചെയ്യാനാകാത്ത കാൽക്കുലേറ്ററുകൾ ഒഴികെയുള്ള ഒരു ഇലക്ട്രോണിക് ഉപകരണവും പരീക്ഷാഹാളിൽ ഉപയോഗിക്കുവാൻ പാടില്ല.

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Answer any 5 questions from 1 to 6. Each carries 1 score. $(5 \times 1 = 5)$

1. In inheritance the existing class is called _____.

2. The _____ operator is used to allocate memory location during run time (execution).

3. Write an empty tag used in HTML.

4. Which attribute of <input> tag is used to make different kinds of controls like Text box, Radio button, Submit button etc. ?

5. The IP address of a webserver connected to a domain name is stored in _____.

6. Expand ICT.

Answer any 9 questions from 7 to 18. Each carries 2 scores. $(9 \times 2 = 18)$

7. What is a pointer variable in C++ ? Write the syntax or example to declare a pointer variable.

8. Write any two differences in static and dynamic memory allocation.

9. Write any two advantages of using object oriented programming language. (OOP)

10. Write the algorithm to add an item in to a queue which is not empty ?

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11. Briefly explain about webserver.

12. Write JavaScript statements to create a number and string variables.

13. Briefly explain about any two built-in functions available in JavaScript.

14. List any four advantages of DBMS.

15. Distinguish between the terms degree and cardinality used in RDBMS.

16. Differentiate echo and print used in PHP.

17. Write short note about any two applications of computational intelligence.

18. Name the types of interactions in e-Governance.

Answer any 9 questions from 19 to 30. Each carries 3 scores.   **(9 × 3 = 27)**

19. Describe about any three e-Learning tools.

20. What is cloud computing ? Write any two services offered by cloud.

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21. Differentiate indexed and associative arrays in PHP.

22. Write short note about numeric and string data types of SQL.

23. What are the different control structures used in JavaScript ? Explain any one with an example.

24. Consider the following relations :

Arts relation :

Adm no.	Name	Batch
3001	Manju	A1
3009	Cristy	C1
4010	Fazil	B1
3090	Arun	K2

Sports relation :

Adm no.	Name	Batch
4015	Arjun	B1
4010	Fazil	B1
3005	Fathima	C2

Find the result of following relational algebra operation.

(a) Arts ∩ Sports

(b) Arts ∪ Sports

(c) Sports – Arts

25. Explain about various types of web hosting.

26. Write the HTML code to create a web page which includes, the following table.

No. of Student		
Boys	XI	140
	XII	60
Girls	XI	75
	XII	125

27. Differentiate static and dynamic web pages.

28. Explain about the operations performed on stack data structure.

29. What is polymorphism ? Write short notes about the types of polymorphism.

30. Define structure. Write any two differences between structure and array.

Answer any 2 questions from 31 to 33. Each carries 5 scores.   **(2 × 5 = 10)**

31. (a) The _____ tag identifies the document as an HTML document.   **(1)**

    (b) Briefly explain about any two attributes of <BODY> tag.   **(2)**

    (c) Write the use of any four tags given below.

    <B>, <U>, <SUB>, <PRE>, <IMG>, <BR>.   **(2)**

32. (a) What are the different kinds of lists available in HTML ? Briefly explain about the tags used for each kind. **(3)**

    (b) Differentiate the following HTML code fragment :

    <A Href = "http :// www.dbsc kerala.gov.in"> Higher secondary <1A> **(1)**

    <A Href = Mailto : "scertkerala.gov.in"> SCERT <1A>

    (c) Write any one attribute of <FRAMESET> tag. **(1)**

33. (a) Briefly explain about any two column constraints used in SQL. **(2)**

    (b) Describe about any two DML commands of SQL. **(3)**

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