Reg. No. : ....

Name : ....

**SECOND YEAR
SAY/IMPROVEMENT
JUNE 2018**

Time : 2 Hours
Cool-off time : 15 Minutes

Part – III

COMPUTER SCIENCE

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 നല്കിയിട്ടുണ്ട്.
- ആവശ്യമുള്ള സ്ഥലത്ത് സമവാക്യങ്ങൾ കൊടുക്കണം.
- പ്രോഗ്രാമുകൾ ചെയ്യാനാകാത്ത കാൽക്കുലേറ്ററുകൾ ഒഴികെയുള്ള ഒരു ഇലക്ട്രോണിക് ഉപകരണവും പരീക്ഷാഹാളിൽ ഉപയോഗിക്കുവാൻ പാടില്ല.

Answer all questions from 1 to 5. Each carries 1 Score.   (5 × 1 = 5)

1.   The ability of data to be processed in more than one form is called _____.

2.   Each node in a linked list has a _____ to the next node.

3.   NORESIZE is an attribute of _____ tag.

4.   In client side scripting, processing is done by _____.

5.   VPS stands for _____.

Answer any 9 questions from 6 to 16. Each carries 2 Scores.   (9 × 2 = 18)

6.   What is self referential structure ?

7.   What is the difference between the two declaration statements given below :

       (a)   int *ptr = new int (10);

       (b)   int *ptr = new int [10];

8.   Differentiate static and dynamic data structure. Give an example for each.

9.   Categorize the following tags in HTML appropriately.

, <h1>, <img>, <table>

10.   Explain any two data types in JavaScript.

11. Write the JavaScript code to display "Welcome to Kerala" inside the <h1>. tag as shown in the HTML page.

<HTML>

<Body>

<Script lang= "javascript">

<h1>.................. </h1>

</Body>

</Script>

</HTML>

12. Explain any two components of DBMS.

13. Consider the following table :

Sl. No.	Name	Age	Total
1	Albert	50	90
2	Einstein	60	95
3	Kalam	70	94
4	Raman	90	98
5	Babbage	95	99

(a) Identify the degree and cardinality of the given table.

(b) Identify a suitable primary key for the given table.

14. Write the output of the following PHP code fragment.

```
function justAfun ($num)
{
    $num = $num * 5 + ($num + 6);
    return $num;
}
echo justAfun(100);
```

15. Compare serial and parallel computing.

16. How does ICT help students in learning ?

Answer any 9 questions from 17 to 27. Each carries 3 Scores. $(9 \times 3 = 27)$

17. What is a Pointer in C++ ? Declare a pointer and initialize with the name of your country.

18. What is Procedural Oriented Programming ? What are the disadvantages of Procedural Oriented Programming ?

19. Write an algorithm to add a new item into a queue.

20. List and explain any three attributes of INPUT tag in HTML.

21. Consider a string "Gandhiji". Write JavaScript code fragment to do the following tasks :
    (a) Convert the string to upper case.
    (b) Find the length of the string.
    (c) Display the 3rd letter in the string.

22. What is FTP client software ? Differentiate FTP and SFTP.

23. List and explain different database users in DBMS.

24. Differentiate DELETE and DROP in SQL. Write the syntax of DELETE and DROP.

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

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26. Discuss any three information security laws for protecting information shared over cyber space.

27. Briefly explain any three application of computational intelligence.

Answer any 2 questions from 28 to 30. Each carries 5 Scores. (2 × 5 = 10)

28. (a) Name and explain any two attributes of FORM tag. **(2)**

    (b) Check the given HTML code. Fill the missing code to generate an output as shown in the figure. **(3)**

    <HTML>

    <body>

        <form name= 'loginForm'>

        username:

            <input type = "text">

        password:

            ....

            <input type = "......" value = "Login">

            ....

        </form>

        </body>

        </html>

29. (a) What are scripts in web programming ?

(b) Differentiate Client-side Scripting and Server-side Scripting.

30. Write SQL queries based on the table PRODUCT given below :

PID	Name	Product	Price
P1	Lukra	Sea food	4000
P5	Exotic Liquids	Mineral water	7000
K1	Tokyo Traders	Soft drink	5000
R3	Chang	Iron	8000
W5	Tokyo Traders	Soft drink	3000

(a) Set PID as a primary key.

(b) Display the Name, Price of the product having highest price.

(c) Change the Name of Supplier 'Exotic Liquids' to 'Singapore Foods'.

(d) Delete all products of supplier 'Tokyo Traders'.

(e) Display Pname and Supplier of all products in the ascending order of price.

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