Reg. No. : .....

Name : .....

SY 30

MARCH 2019

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 wrapping up of data end functions into a single unit is called _____.

2. In a linked list, the link part of the last node contains _____ data.

3. Give the full form of VPS.

4. The number of rows in a relation is called _____.

5. In PHP, arrays that use string keys are called _____.

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

6. Define a structure named 'Time' with elements hour, minute and second.

7. Read the following C++ code :

```
int a[5] = {10, 15, 20, 25, 30};
int *p = a;
```

Write the output of the following statements :

(a) `cout << * (p + 2);`

(b) `cout << * p + 3;`

8. List the different operations performed on data structures.

9. Write HTML tag for the following :

(a) Hyperlink to the website http : //www.dhsekerala.gov.in

(b) email link to dhseexam@gmail.com

10. Describe the use of 'action' and 'method' attributes of <FORM> tag.

11. Explain the two purpose of '+' operator used in JavaScript.

12. The JavaScript function given below is used to display the sum of digits of a given number. Fill in the blanks to complete the function.


```
<Script language = "JavaScript">
_____ sum digit( )
{var n, s;
n = document.frm.txt1. _____ ;
for (s = 0; _____ ; n = n/10)
    s = s + _____ ;
document.frm.txt2.value = s;
}
</script>
```

13. Explain any two constraints used in SQL.

14. List the core data types in PHP.

15. What is meant by GIS ? Give an example.

16. Define Infringement.

Answer any 9 questions from 17 to 27. Each carries 3 scores. **(9 × 3 = 27)**

17. What are the different memory allocations used in C++ ? Explain.

18. What is polymorphism ? Give an example.

19. Write an algorithm to insert a new item into a Queue.

20. Differentiate between static web page and dynamic web page.

21. Briefly explain the different ways in which a JavaScript code can be inserted in a web page.

22. Distinguish between shared hosting and dedicated hosting.

23. Explain different levels of data abstraction in DBMS.

24. Describe the 'union' and 'intersection' operations in relational algebra with suitable example.

25. Write PHP code to display all even numbers below 100.

26. Explain the cloud service models.

27. List and explain any three e-learning tools.

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

28. Explain the various attributes of <BODY> tag.

29. Write HTML code to display the following table in a web page :

Result of ABC school

Year	Students		Pass Percentage
	Registered	Passed	
2014	200	130	65
2015	200	150	75
2016	200	160	80

30. A table named 'student' with fields Roll no., Name, Batch, Mark, Grade is given. Write SQL statements for the following :

(a) To display the details of all students in 'Science' batch.

(b) To display the details of these students having grade A or A+.

(c) To count the number of students in each batch.

(d) To change the grade of the student to A+ whose Roll no. is 50.

(e) Remove the details of student whose Roll no. is 10.
