

Reg. No. :

Code No. 2019

Name :

**Second Year – JUNE 2016
SAY / IMPROVEMENT**

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 of 2 hrs.
- You are not allowed to write your answers nor to discuss anything with others during the 'cool-off time'.
- Use the 'cool-off time' to get familiar with questions and to plan your answers.
- Read questions carefully before answering.
- All questions are compulsory and only internal choice is allowed.
- When you select a question, all the sub-questions must be answered from the same question itself.
- 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.

നിർദ്ദേശങ്ങൾ :

- നിർദ്ദിഷ്ട സമയത്തിന് പുറമെ 15 മിനിറ്റ് 'കൂൾ ഓഫ് ടൈം' ഉണ്ടായിരിക്കും. ഈ സമയത്ത് ചോദ്യങ്ങൾക്ക് ഉത്തരം എഴുതാനോ, മറ്റുള്ളവരുമായി ആശയവിനിമയം നടത്താനോ പാടില്ല.
- ഉത്തരങ്ങൾ എഴുതുന്നതിന് മുമ്പ് ചോദ്യങ്ങൾ ശ്രദ്ധാപൂർവ്വം വായിക്കണം.
- എല്ലാ ചോദ്യങ്ങൾക്കും ഉത്തരം എഴുതണം.
- ഒരു ചോദ്യനമ്പർ ഉത്തരമെഴുതാൻ തെരഞ്ഞെടുത്തു കഴിഞ്ഞാൽ ഉപചോദ്യങ്ങളും അതേ ചോദ്യനമ്പറിൽ നിന്ന് തന്നെ തെരഞ്ഞെടുക്കേണ്ടതാണ്.
- കണക്ക് കൂട്ടലുകൾ, ചിത്രങ്ങൾ, ഗ്രാഫുകൾ എന്നിവ ഉത്തരപേപ്പറിൽ തന്നെ ഉണ്ടായിരിക്കണം.
- ചോദ്യങ്ങൾ മലയാളത്തിലും നൽകിയിട്ടുണ്ട്.
- ആവശ്യമുള്ള സ്ഥലത്ത് സമവാക്യങ്ങൾ കൊടുക്കണം.
- പ്രോഗ്രാമുകൾ ചെയ്യാനാകാത്ത കാൽക്കുലേറ്ററുകൾ ഒഴികെയുള്ള ഒരു ഇലക്ട്രോണിക് ഉപകരണവും പരീക്ഷാഹാളിൽ ഉപയോഗിക്കുവാൻ പാടില്ല.

1. What are the major advantages of relational model over other data models ? (Score : 1)
2. What happens when we use DELETE FROM command without A WHERE clause ? (Score : 1)
3. Define Robotics. (Score : 1)
4. Give the goal of Computer forensics. (Score : 1)
5. Give the function in JavaScript that converts a string type data containing numbers to number type. (Score : 1)
6. Write two advantages of linked list data structure over arrays. (Scores : 2)
7. Rahim wants to connect his webpage to www.yahoo.com. Write the tag and attributes required for these. (Scores : 2)

Answer any one question 8(a) or 8(b) :

8. (a) Design a web page with form tag which accepts a number in a textbox and another textbox which should display either odd or even. Write a function in JavaScript to check whether the number is odd or even. (Scores : 2)

OR

- (b) Develop a web page that accepts a number after validation and prints the factorial of it. (Scores : 2)

9. An array in PHP is given as follows :

```
$family = array ("Father"=>"Ajay",  
"Son"=>"Arjun", "Daughter"=>"Archana");
```

Name the type of this array. Write a foreach loop that prints all the array elements.

(Scores : 2)

10. (a) How will you free the allocated memory ? (Score : 1)
- (b) Define a structure called time to group the hours, minutes and seconds. Also write a statement that declares two variables current-time and next-time which are of type struct time. (Scores : 2)

11. A program is implemented to find the area of a circle and area of a rectangle with two functions having same name but with different signature.
- (a) Name the concept **(Score : 1)**
 - (b) Explain this concept by writing the above program. **(Scores : 2)**
12. (a) Classify the following scripting language into client side and server side :
ASP, PHP, JavaScript, VBScript **(Scores : 2)**
- (b) Write any one use of client side scripting. **(Score : 1)**
13. JavaScript provide a large number of built-in functions.
- (a) Name any two of them with an example. **(Scores : 2)**
 - (b) The property which returns the size of the string is _____. **(Score : 1)**
14. (a) List the factors to be taken into consideration while buying hosting space on a web server. **(Scores : 2)**
- (b) What type of web page designing is called responsive web design ? **(Score : 1)**
15. (a) What are the difference between GET and POST methods in form submitting ? **(Scores : 2)**
- (b) Study the following steps and determine the correct order :
 - (1) Open a connection to MySQL server
 - (2) Execute the SQL query
 - (3) Fetch the data from query
 - (4) Select database
 - (5) Close connection
 - (a) 4, 1, 2, 3, 5
 - (b) 1, 4, 2, 3, 5
 - (c) 1, 5, 4, 2, 3
 - (d) 4, 1, 3, 2, 5**(Score : 1)**

16. Answer any question 16(a) or 16(b) :

- (a) Write a C++ program to store and print information (name, roll and marks) of a student using structure. **(Scores : 3)**

OR

- (b) Write a program in C++ to input the total marks obtained by a group of students in a class and display them in descending order using pointer. **(Scores : 3)**

17. Consider the following cases :

- (1) Paper cups are arranged on a dining table one above the other.
(2) Many people are waiting in a row to take tickets for a cinema.

Identify and compare the data structure that you know in connection with the above mentioned contexts. **(Scores : 3)**

18. Fill the following table with appropriate points to distinguish between <P> tag and
 tag.

<P> tag	 tag
1.	1. Breaks the current line and continues to the next line
2. container tag	2.
3. Align attribute sets the alignment of the text in the paragraph	3.

(Scores : 3)

19. Give any three advantages and disadvantages of grid computing. **(Scores : 3)**

20. Explain different categories of cyber crimes against government. **(Scores : 3)**

21. (a) Classify the following operations in relational algebra into unary and binary operations :

(1) UNION (2) SELECT (3) SET DIFFERENCE (4) PROJECT (Score : 1)

(b) Explain about SELECT, INTERSECTION and SET DIFFERENCE operations with example. (Scores : 3)

22. Answer any one question 22 (a) or 22 (b) :

(a) Write an HTML code to display a list of hardware and software of a company in the following format :

I. Hardware

1. Cables

(i) UTP

(ii) Coaxial

(iii) Fiberoptic

2. Storage Devices

(i) USB

(ii) HardDisk

(iii) Tape

II. Software

1. Application Software

(i) MS Office

(ii) Inventory Management System

2. System Software

(i) Compilers

(ii) Assemblers

(Scores : 5)

OR

2019

8

- (b) Write an HTML code to display a user registration form as shown below :

User Registration Form

Please complete the following form to register
with our site

User name Password

Gender : Male : Female :

How did hear about us : ▾

Please check this box if you wish to be added in
our mailing list

We will not pass your details to any third party

23. If a table named "mark" has field's regNo. subCode and marks write SQL statements for the following :

- (a) List the subject codes eliminating duplicates.
- (b) List the marks obtained by students with subject codes 3001 and 3002.
- (c) Arrange the table based on marks for each subject.
- (d) List all the students who have obtained marks above 90 for the subject codes 3001 and 3002.
- (e) List the contents of the table in the descending order of marks. (Scores : 5)