Time : 2 Hours
Cool-off time : 15 Minutes

Second Year – March 2017

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 ചോദ്യനമ്പരിൽ 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.

P.T.O.

1. Compare the aspects of arrays and structures.

(Scores : 3)

2. Run time allocation of memory is triggered by the operator _____.

(Score : 1)

3. Represent the names of 12 months as an array of strings.

OR

A structure can contain another structure. Discuss.

(Scores : 2)

4. Differentiate between Data Abstraction and Data Encapsulation.

(Scores : 3)

5. Queue follows the _____ principle.

(Score : 1)

6. How does Stack overflow and underflow occur ?

(Scores : 2)

7. Write a procedure to implement traversal operation in a linked list.

(Scores : 2)

8. Default port number for HTTPS is _____.

(Score : 1)

9. What are the various types of client side scripting languages ?

(Scores : 2)

10. Develop a web page of an organization with the following features :

    (a) Has an image as background.

    (b) Welcomes users with a marquee in attractive fonts.

    (c) Displays address of the organization.

(Scores : 3)

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11. A link to a particular section of the same document is called _____. (Score : 1)

12. Create a web page using frames for Tourism department showing list of tourist places in Kerala. When a place is selected a detailed description should be available in a separate window.

OR

Create a form that accepts information regarding a student. Fields necessary are name, age, class, sex, roll number, hobbies and date of birth. Use appropriate form controls.

(Scores : 5)

13. A virtual machine for executing JavaScript code is _____. (Score : 1)

14. Discuss about six built in functions used in JavaScript. (Scores : 3)

15. Design a procedure in JavaScript that takes two strings as input and displays the concatenated strings as output. (Scores : 2)

16. An example of a virtualization software is _____. (Score : 1)

17. Discuss steps involved in registering the domain name of your school web site. (Scores : 2)

18. (a) Discuss advantages of DBMS. (Scores : 3)

    (b) Create a database schema for the relation VEHICLE. (Scores : 2)

19. Distinguish between DDL and DML and give examples for each type. (Scores : 5)

20. Null values in tables are specified as "null". State whether true or false. (Score : 1)

21. A web server that supports PHP on any operating system is _____. (Score : 1)

22. Discuss about special data types used in PHP. (Scores : 2)

23. Create an HTML form in PHP showing the difference of the GET and POST method.

OR

Write a function in PHP to find the factorial of a number. (Scores : 3)

24. (a) A widely used operating system for cluster computers is _____. (Score : 1)

(b) Discuss advantages of grid computing, cluster computing and cloud computing. (Scores : 3)

25. (a) An Educational channel of Kerala Government is _____. (Score : 1)

(b) Discuss about the schemes used in protecting intellectual property. (Scores : 3)

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