

2016 (A)
(NEW SYLLABUS)

Roll No. : ನೊಂದಣಿ ಸಂಖ್ಯೆ :	Subject Code : ವಿಷಯ ಸಂಖ್ಯೆ : 41 (N/S)
Duration : 3 Hrs. 15 Minutes ಸಮಯ : 3 ಗಂಟೆ 15 ನಿಮಿಷಗಳು	Q.P. Serial No. : ಪ್ರ.ಪ. ಯ ಕ್ರಮ ಸಂಖ್ಯೆ : 55080
No. of Pages : 3 ಪುಟಗಳ ಸಂಖ್ಯೆ : 3	Full Marks : 70 ಒಟ್ಟು ಅಂಕಗಳು : 70

COMPUTER SCIENCE

ಗಣಕ ವಿಜ್ಞಾನ

Instructions : This question paper has been sealed by reverse jacket. You have to cut to open the paper at the time of commencement of the examinations. Check whether all the pages of the question paper are intact.

ಸೂಚನೆಗಳು : ಈ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ರಿವರ್ಸ್ ಜಾಕೆಟ್ ಮೂಲಕ ಸೀಲ್ ಮಾಡಲಾಗಿದೆ. ಪರೀಕ್ಷೆ ಪ್ರಾರಂಭವಾಗುವ ಸಮಯಕ್ಕೆ ನಿಮ್ಮ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ಬಲಬದಿ ಪಾರ್ಶ್ವವನ್ನು ಕತ್ತರಿಸಿ, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯಲ್ಲಿ ಎಲ್ಲಾ ಪುಟಗಳು ಇವೆಯೇ ಎಂದು ಪರೀಕ್ಷಿಸಿಕೊಳ್ಳಿ.

General Instructions to the Candidate :

ಪರೀಕ್ಷಾರ್ಥಿಗಾಗಿ ಸಾಮಾನ್ಯ ಸೂಚನೆಗಳು :

1. Candidates are required to give their answers in their own words as far as practicable.
ಪರೀಕ್ಷಾರ್ಥಿಯು ಸಾಧ್ಯವಾದಷ್ಟು ತಮ್ಮ ಸ್ವಂತ ಪದಗಳಲ್ಲಿಯೇ ಉತ್ತರಿಸಬೇಕು.
2. Figures in the right hand margin indicate full marks.
ಬಲ ಭಾಗದಲ್ಲಿ ಕೊಟ್ಟಿರುವ ಅಂಕಗಳು ಪೂರ್ಣಾಂಕಗಳನ್ನು ತೋರಿಸುತ್ತದೆ.
3. While answering the candidate should adhere to the word limit as far as practicable.
ಪರೀಕ್ಷಾರ್ಥಿಯು ಉತ್ತರಿಸುವ ಸಮಯದಲ್ಲಿ ಸಾಧ್ಯವಾದಷ್ಟು ಮಟ್ಟಿಗೆ ಉತ್ತರವು ಶಬ್ದಗಳ ಪರಿಮಿತಿಯೊಳಗೆ ಇರುವಂತೆ ಗಮನಿಸುವುದು.
4. 15 minutes of extra time have been allotted for the candidates to read the questions.
ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಓದಿ ಅರ್ಥೈಸಿಕೊಳ್ಳಲು 15 ನಿಮಿಷಗಳ ಹೆಚ್ಚಿನ ಕಾಲಾವಕಾಶ ನೀಡಲಾಗಿದೆ.

PART - A**Note :**

- i) Answer *all* questions.
- ii) Each question carries one mark.

 $10 \times 1 = 10$

1. What is DHTML ?
2. Define e-commerce.
3. Define Local Area Networking.
4. Define the term 'topology' of computer networks.
5. Define Data Mining.
6. How do you initialize a pointer variable ?
7. What is the significance of scope resolution operation in C++ ?
8. Name any one non-linear data structure.
9. Write the standard symbol for XOR gate.
10. Expand ISA.

PART - B**Note :**

- i) Answer any *five* questions.
- ii) Each question carries two marks.

 $5 \times 2 = 10$

11. Prove $(X + Y)(X + Z) = X + YZ$ using algebraic method.
12. Give the general syntax for defining classes and objects.
13. What are minterms and maxterms ?
14. Mention any two antivirus softwares.
15. Write the syntax for delete and insert commands in SQL.
16. Write any two rules for constructors.
17. Write any two member functions belonging to offstream class.
18. What are the advantages and disadvantages of ISAM ?

PART - C**Note :**

- i) Answer any *five* questions.
 - ii) Each question carries three marks.
19. What is web hosting ? Mention various web hosting services.
 20. What is meant by shareware ? Write its limitations.

 $5 \times 3 = 15$

21. Explain relational data model with an example.
22. Give the functions of the following :
 - a) get()
 - b) getline()
 - c) read()
23. Explain the use of new and delete operators in pointers.
24. What is stack ? Write an algorithm for POP operation.
25. Draw the logic diagram and truth table for 2 input XOR gate.
26. Expand UPS. Explain the types of UPS.

PART - D

Note :

- i) Answer any *seven* questions.
- ii) Each question carries five marks.

7 × 5 = 35

27. Write an algorithm to insert an element into a queue.
 28. Write an algorithm for insertion sort method.
 29. Using K-map, simplify the following expression in four variables :
$$F(A,B,C,D) = m_1 + m_2 + m_4 + m_5 + m_9 + m_{11} + m_{12} + m_{13}.$$
 30. Write the rules to be followed in writing constructor function in C++.
 31. Describe briefly the use of friend function in C++ with syntax and example.
 32. Explain defining objects of a class with syntax and a programming example.
 33. Define object oriented programming. Write the limitations of object oriented programming.
 34. Explain network securities in detail.
 35. Describe any five logical operators available in SQL.
 36. Write the differences between Manual and Electronic Data Processing.
 37. Explain briefly the types of inheritance.
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