27123

B.C.A. First Semester Degree Examination

COMPUTER SCIENCE

Paper 1.6 — C Programming

(New Syllabus)

Time : 3 Hours] [Max. Marks : 80

SECTION – A

Answer **all** the questions. Each question carries **2** marks : **(10 × 2 = 20)**

1. What are the advantages of 'C' language?
2. Summarize the rules for naming an identifier.
3. Differentiate between pre increment and post increment operation.
4. Explain any 2 mathematical functions available in 'C' language.
5. What is a header file? Explain with an example.
6. Distinguish between while and do while statement.
7. How do you declare an array? Explain with a suitable example.
8. Write the structure of a function.
9. Give one difference between the structure and union.
10. What is the fundamental difference between pass by value and pass by reference?

P.T.O.

SECTION – B

Answer any **four** questions. Each question carries **5** marks : **(4 × 5 = 20)**

11. What is a datatype? Explain the 4 basic datatypes in C.

12. What is an operator? Explain Arithmetic operator with example.

13. List out different branching statements available in 'C' language. Explain any one with general syntax and programming example.

14. Write a 'C' program to add 2 one dimensional arrays of same size.

15. Write the general syntax of a structure declaration and explain how a structure members are accessed.

16. Define file. Explain fopen( ) and fclose( ) function with example.

SECTION – C

Answer any **four** questions. Each question carries **10** marks : **(4 × 10 = 40)**

17. Explain the characteristics and structure of 'C' programming with an example.

18. Write a C program to find whether a given number is palindrome or not.

19. What is an array? Explain 2 dimensional array with example.

20. Define function. Explain different types of functions.

21. Write a 'C' program to swap 2 numbers using call by reference.

22. Define recursive. Explain with a 'C' program to find the factorial of a given number using recursive function.

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B.A./B.Sc./B.Com./B.C.A./B.B.M./B.S.W./
B.H.M. First Semester Degree Examinations

INDIAN CONSTITUTION 2014
(Compulsory)

Time : 3 Hours] [Max. Marks : 80

Instructions : *1) Answer **all** questions.*
2) Answer either in English or in Kannada.

1. (a) Fill in the blanks : **(5 × 1 = 5)**
ಬಿಟ್ಟಸ್ಥಳಗಳನ್ನು ತುಂಬಿರಿ :

(i) ———— was the chairman of the drafting committee.
———— ರವರು ಕರಡ ತಯಾರಿಕ ಸಮಿತಿಯ ಅಧ್ಯಕ್ಷರಾಗಿದ್ದರು.

(ii) ———— is the first citizen of India.
———— ರವರು ಭಾರತದ ಪ್ರಥಮ ಪ್ರಜೆಯಾಗಿದ್ದಾರೆ.

(iii) The chapter IV of the Indian Constitution deals with ————.
ಭಾರತ ಸಂವಿಧಾನದ ನಾಲ್ಕನೆಯ ಭಾಗವು ———— ಗೆ ಸಂಬಂಧಿಸಿದೆ.

(iv) The Judges of the High Courts are appointed by ————.
ಹೈಕೋರ್ಟಿನ ನ್ಯಾಯಾಧೀಶರನ್ನು ———— ರವರು ನೇಮಿಸುತ್ತಾರೆ.

(v) The term of President of India is ————.
ಭಾರತದ ರಾಷ್ಟ್ರಪತಿಯ ಅಧಿಕಾರ ಅವಧಿಯು ————.

(b) State the following statements whether true or false : **(5 × 1 = 5)**

ಈ ಕೆಳಗಿನ ವಾಕ್ಯಗಳು ಸರಿ ಅಥವಾ ತಪ್ಪು ತಿಳಿಸಿರಿ :

T (i) India is Republican State.
ಭಾರತವು ಗಣರಾಜ್ಯ ರಾಷ್ಟ್ರವಾಗಿದೆ.

F (ii) The Indian Constitution provides Dual Citizenship.
ಭಾರತದ ಸಂವಿಧಾನವು ದ್ವಿಪೌರತ್ವವನ್ನು ಒದಗಿಸುತ್ತದೆ.

F (iii) President of India nominates four members to the Lokasabha.
ಭಾರತದ ರಾಷ್ಟ್ರಪತಿಯವರು ಲೋಕಸಭೆಗೆ ನಾಲ್ಕು ಸದಸ್ಯರನ್ನು ನಾಮಕರಣ ಮಾಡುತ್ತಾರೆ.

(iv) Indian Constitution is an Federal Government.
T ಭಾರತದ ಸಂವಿಧಾನವು ಸಂಯುಕ್ತ ಸರಕಾರವಾಗಿದೆ.

(v) Fundamental Rights are not Justiciable Rights.
F ಮೂಲಭೂತ ಹಕ್ಕುಗಳು ನ್ಯಾಯಾರ್ಹ ಹಕ್ಕುಗಳಲ್ಲ.

Answer the following questions in two or three sentences each (any **five**) : **(5 × 2 = 10)**

ಯಾವುದೇ **ಐದು** ಪ್ರಶ್ನೆಗಳಿಗೆ ಎರಡು ಅಥವಾ ಮೂರು ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ :

2. What is Republican State?
ಗಣರಾಜ್ಯ ಎಂದರೇನು?

3. What is Independent Judiciary?
ಸ್ವತಂತ್ರ ನ್ಯಾಯಾಂಗ ಎಂದರೇನು?

4. What are the qualifications to become the member of Legislative Council?
ವಿಧಾನ ಪರಿಷತ್ತಿನ ಸದಸ್ಯರಾಗಲು ಇರಬೇಕಾದ ಅರ್ಹತೆಗಳು ಯಾವುವು?

5. What is meant by Collective Responsibility?
ಸಾಮೂಹಿಕ ಹೊಣೆಗಾರಿಕೆ ಎಂದರೇನು?

6. What is meant by "Habeas Carpus"?
'ಹೇಬಿಯಸ್ ಕಾರ್ಪಸ್' ಎಂದರೇನು?

7. How the Speaker of Lokasabha is elected?
ಲೋಕಸಭೆಯ ಸಭಾಪತಿಯವರು ಹೇಗೆ ಆಯ್ಕೆ ಆಗುತ್ತಾರೆ?

Answer any **three** questions in ten sentences each : **(3 × 5 = 15)**
ಯಾವುದೇ **ಮೂರು** ಪ್ರಶ್ನೆಗಳಿಗೆ ಹತ್ತು ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ :

8. Discuss the "Right to Constitutional Remedies".
ಸಂವಿಧಾನದ ಪರಿಹಾರದ ಹಕ್ಕಿನ ಬಗೆಗೆ ಚರ್ಚಿಸಿರಿ.

9. Write about the role of Speaker.
ಸಭಾಪತಿಯವರ ಪಾತ್ರದ ಬಗೆಗೆ ಬರೆಯಿರಿ.

10. Explain any two functions of the Legislative Assembly.
ವಿಧಾನ ಸಭೆಯ ಯಾವುದಾದರೂ ಎರಡು ಕಾರ್ಯಗಳನ್ನು ವಿವರಿಸಿರಿ.

11. Write the fundamental duties of the Indian Citizens.
ಭಾರತದ ನಾಗರೀಕನ ಮೂಲಭೂತ ಕರ್ತವ್ಯಗಳನ್ನು ಬರೆಯಿರಿ.

Answer any **three** questions in detail : **(3 × 15 = 45)**

ಮೂರು ಪ್ರಶ್ನೆಗಳಿಗೆ ವಿವರವಾಗಿ ಉತ್ತರಿಸಿರಿ :

12. Explain the salient features of the Indian Constitution.
ಭಾರತದ ಸಂವಿಧಾನದ ಪ್ರಮುಖ ಲಕ್ಷಣಗಳನ್ನು ವಿವರಿಸಿರಿ.

13. Explain the role of Prime Minister in India.
ಭಾರತದ ಪ್ರಧಾನ ಮಂತ್ರಿಯವರ ಪಾತ್ರವನ್ನು ವಿವರಿಸಿರಿ.

14. Discuss the composition, powers and functions of the Lokasabha.
ಲೋಕಸಭೆಯ ರಚನೆ, ಅಧಿಕಾರ ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ಚರ್ಚಿಸಿರಿ.

15. Explain the composition, powers and functions of the Supreme Court.
ಸರ್ವೋಚ್ಚ ನ್ಯಾಯಾಲಯದ ರಚನೆ, ಅಧಿಕಾರ ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ವಿವರಿಸಿರಿ.

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B.A., B.Sc., B.Com., B.B.M., B.S.W. & B.C.A.
First Semester Degree Examinations

BASIC ENGLISH 2014

(New Syllabus)

Time : 3 Hours] [Max. Marks : 80

Texts *: (1) Words and Beyond*

(2) Grammar

1. (a) Annotate any **two** of the following : **(2 × 6 = 12)**

   (i) When the speaker is a foreigner, the better he speaks, the harder it is to understand him. No foreigner can ever stress the syllables and make the voice rise and fall in question and answer, assertion and denial, in refusal and consent, in enquiry or information, exactly as a native does.

   (ii) Women can not bear anything mysterious : the unknown can inspire poetry, or heroism or wise speculation, but one can not set up house with it.

   (iii) Heavens, but what did I expect? In a year or two more I shan't count at all. Young men will come prowling like the dogs after snort - I shall be an old buffer, useful only to pay bills.

   (b) Answer any **one** of the following : **(1 × 16 = 16)**

   (i) How does Kadambini's character become a major source for the story "The Living And the Dead"? Explain.

   (ii) O' Henry's story 'Spring Time' is primarily based on the theme of 'Love'. Discuss.

2. (a) Annotate any **two** of the following : **(2 × 6 = 12)**

(i) Where words come out from the depth of truth;
Where tireless striving stretches its arms towards perfection.
Where the clear stream of reason has not lost its way into the dreary desert sand of dead habit.

(ii) Shine on me, sunshine
Rain on me, rain
Fall softly, dew drops
And cool my brow again.

(iii) I want to be what I used to be
When I was like you. I want
to unlearn all these muting things
Most of all, I want to relearn
how to laugh.

(b) Answer any **one** of the following : **(1 × 16 = 16)**

(i) How does the poet Gabriel Okara bring out the difference between the past and the present?

(ii) In what way Maya Angelou express her concern for woman's toil and thankless existence in her poem Woman Work?

3. (a) Rewrite as directed : **(4 × 2 = 8)**

(i) She likes toys. (change into past tense)

(ii) He is singing. (into past continuous)

(iii) The boys have learnt a lot of new games. (into past perfect tense)

(iv) She is depositing her jewels in safe lockers. (into past perfect continuous tense)

(b) Do as directed : **(4 × 2 = 8)**

(i) She was watching a movie.
(into present continuous tense)

(ii) They played hockey in the tournament.
(into present tense)

(iii) The tailor had charged high wages for stitching.
(into present perfect tense)

(iv) The professor was teaching effectively to the students.
(into present perfect continuous tense)

(c) Change the voice : **(4 × 2 = 8)**

(i) The Tamil girl was speaking English with her friends.

(ii) They kept me waiting for a long time.

(iii) People speak English all over the world.

(iv) The Children are enjoying the circus show.

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B.C.A. First Semester Degree Examination

COMPUTER SCIENCE

2014

Paper 1.5 — Computer Fundamentals and Office Automation

Time : 3 Hours] [Max. Marks : 80

SECTION – A

I. Answer **all** the questions. Each question carries **2** marks : **(10 × 2 = 20)**

1. Who is called the Father of Computer? Write his role in the history of modern computers.

2. Define Computer.

3. Expand ENIAC and VLSI.

4. List any 2 features of 4th generation computers.

5. List out any 2 input devices.

6. List any 2 differences between Interpreter and Compiler.

7. Define Computer Virus. Name any 2 anti-virus softwares available.

8. Give the steps for opening a new document in MS-Word.

9. How many rows and columns are there in MS-Excel?

10. Give the steps in adding a clipart to a presentation in MS-PowerPoint.

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SECTION – B

II. Answer any **four** questions. Each question carries **5** marks : **(4 × 5 = 20)**

11. Explain the characteristics of computers.

12. Explain the different types of devices using optical media.

13. Write a note on programming language.

14. Explain the options of cut, copy and paste in MS-Word.

15. Explain the various statistical functions with a suitable example in MS-Excel.

16. Explain the different views of a slide in MS-PowerPoint.

SECTION – C

III. Answer any **four** questions. Each question carries **10** marks : **(4 × 10 = 40)**

17. With a neat diagram explain the block diagram of computer.

18. Explain the different generations of computers.

19. Explain in detail about printers.

20. Explain mail merge option in MS-Word.

21. Explain the various options of the formatting toolbar in MS-Excel.

22. Explain the parts of MS-PowerPoint Window.

paper

8. Evaluate : $\lim_{x \to 5} \frac{x^2 - 25}{x - 5}$.

9. Integrate $(2x + 3)^6$ w.r.t. x.

10. Find $\int \frac{1}{3x + 5} dx$.

SECTION – B

Answer any **four** questions : **(4 × 5 = 20)**

11. State De-Moivre's theorem. Simplify

$$\frac{(\cos\theta + i\sin\theta)^3 \, (\cos\theta - i\sin\theta)^{-8}}{\left[(\cos\theta + i\sin\theta)^4\right]^5 \, (\cos 3\theta + i\sin 3\theta)^2}$$

12. Find the inverse of the matrix $A = \begin{bmatrix} 1 & 2 & -1 \\ -1 & 1 & 2 \\ 2 & -1 & 1 \end{bmatrix}$.

13. Solve the following system of linear equations by Matrix method :

$$3x + y + 2z = 3$$
$$2x - 3y - z = -3$$
$$x + 2y + z = 4$$

14. Show that the function

$$f(x) = \begin{cases} 5x - 4, & 0 \le x \le 1 \\ 4x^2 - 3x, & 1 \le x < 2 \end{cases}$$

is continuous at $x = 1$.

15. Verify Mean Value Theorem for the function $f(x) = x^2 - 4x - 3$ in the interval [1, 4].

16. Integrate $(2x^2 - 6x + 4)^{3/2} (2x - 3)$ w.r.t. x.

SECTION – C

Answer any **four** questions : **(4 × 10 = 40)**

17. (a) Find the cube roots of $1 + i\sqrt{3}$. **(6)**

(b) Find the real and imaginary part of $\frac{5 + \sqrt{2}i}{1 - \sqrt{2}i}$. **(4)**

18. (a) Solve by Cramer's rule : **(6)**

$$x + y + z = 7$$
$$2x + 3y + 2z = 17$$
$$4x + 9y + z = 37.$$

(b) Find the value of x, if $\begin{vmatrix} 2 & 3 & 1 \\ x & 2 & 5 \\ 1 & 3 & 4 \end{vmatrix} = 0$. **(4)**

19. (a) If $A = \begin{bmatrix} 2 & 5 \\ 4 & 5 \end{bmatrix}$, find the eigen values of A. **(6)**

(b) If $A = \begin{bmatrix} 1 & 2 & -3 \\ 5 & 0 & 2 \\ 1 & -1 & 1 \end{bmatrix}$, $B = \begin{bmatrix} 3 & -1 & 2 \\ 4 & 2 & 5 \\ 2 & 0 & 5 \end{bmatrix}$ and $C = \begin{bmatrix} 4 & 1 & 2 \\ 0 & 3 & 2 \\ 0 & -2 & 3 \end{bmatrix}$, find $A(B + C)$. **(4)**

20. (a) If $y = e^{m\sin^{-1}x}$, prove that $(1-x^2)y_2 - xy_1 - m^2y = 0$. **(6)**

(b) Find $\frac{dy}{dx}$ if $2x^2 - 3xy + 4y^2 = 1$. **(4)**

21. (a) Prove that $\int_0^a f(x)dx = \int_0^a f(a-x)dx$. **(6)**

(b) Evaluate $\int_0^{\pi/2} \frac{\sqrt{\sin x}}{\sqrt{\cos x} + \sqrt{\sin x}} dx$. **(4)**

22. (a) Using the properties of determinants, prove that

$$\begin{vmatrix} 1+a & b & c \\ a & 1+b & c \\ a & b & 1+c \end{vmatrix} = 1+a+b+c.$$ **(6)**

(b) If $A = \begin{bmatrix} 3 & 8 \\ 1 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 \\ 3 & -1 \end{bmatrix}$, verify $AB = |BA|$. **(4)**

B.C.A. First Semester Degree Examination 2014

Paper 1.4 — Mathematics – I

(New Syllabus) 2014

Time : 3 Hours] [Max. Marks : 80

Instruction : *Answer all questions as per choice.*

SECTION – A

Answer **all** questions : **(10 × 2 = 20)**

1. Express $\frac{1-i}{1+i}$ in the form $a+ib$.

2. If $z = \frac{1+2i}{3-i}$, then find $\bar{z}$.

3. If $A = \begin{bmatrix} 1 & 2 & 3 \\ -1 & 3 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 1 & 2 \\ 2 & 3 & 1 \end{bmatrix}$, find $3A - B$.

4. If $\begin{bmatrix} 2 & 3 \\ 7 & 5 \end{bmatrix} + \begin{bmatrix} 2 & x-2 \\ y-1 & 5 \end{bmatrix} = \begin{bmatrix} 4 & 1 \\ 7 & 10 \end{bmatrix}$, find x and y.

5. Differentiate $5x^3 + 4x^2 + 3x + 2$ w.r.t. x.

6. If $y = e^{2x}\cos x$, find $\frac{dy}{dx}$.

7. Evaluate : $\lim_{\theta \to 0} \frac{\sin 6\theta}{\sin 8\theta}$.