Total No. of Printed Pages:2

SUBJECT CODE NO:- N-4069

FACULTY OF SCIENCE & TECHNOLOGY

B.Sc. (Information Technology) F.Y. (Sem-II) Examination March/April 2019

I.T Tools & Web Designing I- IT203T

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.

N.B i) Attempt all questions.
ii) Illustrate your answer with suitable labeled diagram.
iii) All questions carry equal marks.

Q.1 Fill in the blanks. 10

1) HTML stands for .....
   a) Hyper Tech Markup language
   b) Hyper Text Markup language
   c) Hi Tech Markup language
   d) Hyphenation Text Markup language

2) ..... tag makes a bulleted list with numbers
   (a) <dl> (b) <OL>
   (c) <List> (d) <UL>

3) ..... HTML tag produces the biggest Heading.
   a) <H7> b) <H9> c) <H1> d) <H4>

4) Page designed in HTML is called as.....
   (a) Front page (b) Yellow page
   (c) Server page (d) Web page

5) HTML program is saved using ..... extension.
   (a) .htm (b) .html
   (c) .htl (d) .hml

6) The three types of bullets are ..... and.....
   a) disk, circle, square
   b) diamond, round ,square
   c) disc, round & square
   d) None of the above

7) The CELLPADDING attribute of <TABLE> tag indicates..... between border & contents of the cell
   (a) Space (b) division
   (c) thickness (d) width

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8) ..... is correct commenting form in HTML.
   a) <-- and -->
   b) <!--and -->
   c) <--and-!>
   d) <--! and ->

9) URL stands for .....
   a) Unknown resources language
   b) Uniform resource locator
   c) United resource location
   d) None of the above

10) The <P> tag indicates
   a) Punctuation
   b) Paragraph break
   c) Pointer
   d) none of the above

Q.2 A) *What is HTML? Explain the advantages & disadvantages of HTML.* 05
B) *Write a program in HTML using list tags.* 05

OR

A) What is web server? Explain the features of Web Server. 10

Q.3 A) *What is TCP / IP? Explain.* 05
B) *Explain <FONT> tag with its attributes.* 05

OR

A) What is linking? Explain the types of links. 10

.4 A) Explain the text formatting tags in HTML. 05
B) Write a program in HTML using Heading tags. 05

OR

A) What is Javascript? Give the advantages of Javascript. 10

Q.5 Write a short note on. (Any two) 10
   a) <P> &
 tags
   b) Centering & spacing
   c) External Style Sheets

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SUBJECT CODE NO:- N-4073
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. (Information Technology) F.Y. (Sem-II) Examination March/April 2019
C Programming - II IT204-T

[Time: 1:30 Hours] **[Max.Marks:50]**

N.B
Please check whether you have got the right question paper.
1. All questions are compulsory.
2. Draw diagram whenever necessary.
3. Use only blue or black pen for writing.

Q.1 Multiple choice questions. 10

1. Which of the following is not the proper storage class in C?
   a). auto b) dec c) extern d) register
2. Which of the following are themselves a collection of different data types?
   a) string b) structures
   c) char d) All of the mention
3. A pointer is a
   a) variable that stores address of an instruction
   b). keyword used to create variable
   c) variable that stores address of another variable
   d) None of these
4. When a function is recursively called all the automatic variables are stored in a_____.
   a) Stack b) Queue c) Array d) Register
5. #include is called _____ directive.
   a) Preprocessor b) Inclusion
   c) File inclusion d) None of the mentioned
6. The value of EOF is _____.
   a) –1 b) 0 c) 1 d) 10
7. Value of the static variable declared in the function behave in the program as
   a) Changes during the different function call
   b) Persist during the different function call
   c) Increase during the different function call
   d) Decrease during the different function call
8. Which of the following is NOT the valid option for the function fopen
   a) a+ b) w+ c) b+ d) r+

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9. _____ indicate function 'does not return anything'.
a) void b) int c) return (o) d) exit

10. Which among the following is odd one out?
a) printf b) fprintf c) putchar d) scanf

Q.2 a) State several advantages to the use of function? Describe the types of function in C. 05
b) Can function be called from more than one place within a program? If yes, show it with proper example and if on justify your answer. 05

OR

c) What is structure? How is the array of structure initialized? Write a C program to show the use of array of structure and display the content of structures. 10

Q.3 a) What is an enumeration? How is an enumeration defined and accessed in C program. 05
b) Explain with suitable example the pointer arithmetic. 05

OR

c) Enlist any five string function in C language. Write a program using string function to sort the name of five students stored in an array. 10

Q.4 a) Write a C program to copy the content of one file to another file using getc and putc. 05
b) Summarize the different file types that can be specified by the fopen ( ) function. 05

OR

c) Write a C program to append the student data in stud.dat file. The student information is: roll no, name, class and fees. 10

Q.5 Write short notes on. (any two):- 10
a) Union
b) Extern and static storage class
c) fseek ( ) and rewind ( ) function

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SUBJECT CODE NO:- N-4061
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc.(Information Technology) F.Y. (Sem-II) Examination March/April 2019
Data Structure -IT 201-T

[Time: 1:30 Hours] **[Max.Marks: 50]**

Please check whether you have got the right question paper.

N.B 1) Attempt all questions.
2) Illustrate your answers with suitable labeled diagram.

10

Q.1 Fill in the blanks:-

1) Complexity of bubble sort algorithm is --------
   a) O(n)
   b) O(log n)
   c) O(n 2)
   d) O(n log n)

2) The searching technique that takes O(1) time to find data is ----------
   a) Linear search
   b) Binary search
   c) Hashing
   d) Tree search

3) A linear list of elements in which deletion can be done from one end and insertion can take place only at other end is known as ----------
   a) Queue
   b) Stack
   c) List
   d) Linked list

4) A sort which relatively passes through a list to exchange the first element with any element less than it and then repeats with a new first element is called ----------
   a) Insertion sort
   b) Selection sort
   c) Heap sort
   d) Quick sort

5) In a circular linked list ---------
   a) Components are all linked together in some sequential manner
   b) There is no beginning and no end
   c) Components are arranged hierarchically
   d) None of these

6) The smallest element of an arrays index is called as ---------
   a) Lower bound
   b) Upper bound
   c) Range
   d) Extraction

7) The quick sort algorithm exploits ---------- design technique.
   a) Greedy
   b) Dynamic programming
   c) Divide and conquer
   d) Backtracking

8) A linear collection of data elements where the linear node is given by means of pointer is called ----------
   a) Linked list
   b) Node list
   c) Primitive list
   d) All of these

9) Quick sort is also known as ----------
   a) Merge sort
   b) Heap sort
   c) Bubble sort
   d) None of these

10) --------- data structure is needed to convert infix notation to postfix notation
   a) Branch
   b) Queue
   c) Tree
   d) Stack

Q.2 a) Explain quick sort with algorithm. 05
b) Explain arithmetic expression POLISH. 05

OR

a) Explain different types of queue. 10

Q.3 a) Explain header linked list in detail. 05
b) Explain array representation of stack. 05

OR

a) Explain representation of queue and links. 10

Q.4 a) Explain 2-D arrays in detail. 05
b) Explain record representation in memory. 05

OR

a) Explain with algorithm selection sort, merge sort. 10

Q.5 Write short note on (any two) 10
a) Searching in unsorted linked list
b) Deletion in array
c) M-D array
d) Searching in sorted linked list

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SUBJECT CODE NO: D-4120
FACULTY OF SCIENCE
B.Sc.(Information Technology)F.Y (Sem-II) Examination March/April 2018
Numerical Computation Methods -IT206-T
(Revised)

[Time: 1:30 Hours] [Max.Marks:50]

Please check whether you have got the right question paper.

N.B i) Attempt all questions.
ii) Illustrate your answer with suitable labelled diagram.

Q.1 Fill in the blanks. 10

1) In Newton Raphson method for finding the real root of equation f(x) = 0, the value of x is given by ----------.
   a) $x_0 - \frac{F(x_0)}{F^1(x_0)}$
   b) x_0
   c) $\frac{F(x_0)}{F^1(x_0)}$
   d) $F(x_0)$

2) The goal of forward elimination step in Native Gauss elimination method is to reduce coefficient matrix to an ---------- matrix.
   a) Diagonal matrix
   b) Identity matrix
   c) Lower triangular matrix
   d) None of these

3) Which of the following Symbol is called forward difference operator?
   a) Δ
   b) ∇
   c) δ
   d) $\in$

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4) The Newton Raphson method fails when
   a) $f^1(x)$ negative
   b) $f^1(x)$ is too large
   c) $f^1(x)$ is zero
   d) Never fails

5) In gauss elimination the given system of simultaneous equation is transformed into
   a) Lower triangular
   b) Unit matrix
   c) Transpose matrix
   d) None of these

6) The method of inverse interpolation is ---------.
   a) Iterative method
   b) Lagrange's method
   c) Successive method
   d) All of these

7) Using Newton Raphson Method, find a root correct to three decimal places of the equation $x^3 - 3x - 5 = 0$ ----------
   a) 2.275
   b) 2.279
   c) 2.222
   d) 2.121

8) The root of $x^3 - 2x - 5 = 0$ correct to three decimal places by using Newton Raphson method -----.
   a) 2.0946
   b) 1.0404
   c) 1.7321
   d) 0.7011

9) A root of the equation $x^3 - x - 11 = 0$ correct to four decimals using bisection method is ---------.
   a) 2.3737
   b) 2.2838
   c) 2.3736
   d) 3.2729

10) In general the ratio of truncational error to that of round off error is ---------
   a) 2:1
   b) 1:1
   c) 1:2
   d) 1:3

Q.2 a) Solve by using Bisection method $f(x) = x^3 - 9x + 1 = 0$ $x_0 = 0$ $x_1 = 1$ 05

b) Solve 05

$$A = \begin{bmatrix} 1 & 2 \\ 2 & 1 \end{bmatrix} \qquad B = \begin{bmatrix} 3 & 0 \\ 1 & 0 \end{bmatrix}$$

Compute

1) A+B 2) A-B 3) 5A-3B

OR

a) What is Numerical Method? Explain in detail Process of Numerical Computing. 10

Q.3 a) Explain in detail technique of Newton Gregory interpolation. 05

b) Write an algorithm for Bisection method 05

OR

a) Solve by using Gauss elimination method 10

$$2x + 4y + z = 5$$
$$4x + 4y + 3z = 8$$
$$4x + 8y + z = 9$$

Q.4 a) Lagrange's interpolation formula $x = 0$ from the following data points 05

x	-1	-2	2	4
y	-1	-9	11	69

b) Solve by using false position method 05

$f(x) = x\,sinx - 3cosx = 0$

$x_0 = 0.0$ $x_1 = 1.8$ $M.A.E.0.0010$

OR

a) Write an technique for Newton's Raphson Method with Proper example. 10

Q.5 Short Note (any two) 10

1) Linear simultaneous equation
2) Chopping off and Rounding off error
3) Inverse of matrix