

**356**

**B. Tech. Examination, 2014**

**(First Semester)**

**(M.E. and E.C. Branch)**

**INTRODUCTION TO PROGRAMMING**

**Paper - III**

***Time Allowed : Three Hours***

***Maximum Marks : 100***

**Note :** Do any five. All questions carry equal marks.

**Q. 1.** What is operating system & what is its purpose ?

What is the function of following DOS commands.

20

(i) DIR

(ii) TYPE

(iii) CD

(iv) COPY

**Q. 2.** Convert the following :

20

(i) 760.375 into binary

(ii) (110 111 001.0100111) into decimal

**(2)**

(iii)  $(A\ 6D.\ E9)_2$  binary

(iv) (17.821) into octal

**Q. 3.**

Describe different data types in 'C' with example.

Write a program in C to evaluate  $x^y$  where x & y  
are two integers inputted through keyboard. 20

**Q. 4.**

What is function of switch statement ? Write a  
program to print odd numbers starting from 1 to  
100 and printing their sum also. 20

**Q. 5.**

What is an array ? Explain in detail. Write a  
program to compute the sum of diagonal elements  
of a square matrix. 20

**Q. 6.**

What is pointer ? Explain using a suitable example.

Write a program to swap the values of two  
variables making use of pointers. 20

**Q. 7.**

Write short notes on any four :

**5×4=20**

(i) Header files

(ii) Storage classes in C

(iii) Bit wise operator

(iv) Macto in C

**5262**

**B.Tech. Examination, 2013**

**(Second Semester)**

**(C.S. & I.T. Branch)**

**Paper : III**

**INTRODUCTION TO PROGRAMMING**

***Time Allowed : Three Hours***

***Maximum Marks : 100***

**Note :** Do any **five**. All questions carry equal marks.

**Q. 1.** What do you mean by computer ? Discuss the different generation of computer. **20**

**Q. 2.** (a) What is operating system ? And what is it's purpose ? Name any four popular operating system. **10**

(b) What do you mean by software ? Write the differences between System Software & Application Software. **10**

**Q. 3.** Briefly enumerate the data types & operation in 'C'. **20**

**(2)**

**Q. 4.** Convert the following : **5×4=20**

- (i)  $(67.25)_{10}$  to binary
- (ii)  $(8765)_{10}$  to octal
- (iii) Subtract  $(1111)_2$  from  $\underline{(110101)}_2$
- (iv)  $\underline{(111010101101)}_2$  to Hexadecimal.

**Q. 5.** Define Array and write a program in 'C' for Input 5 subjects marks for 5 students & print with total marks of each student. **20**

**Q. 6.** (a) What is the function of for loop "explain with example ?" **10**

(b) Write a program to read any character from ~~Keyboard~~ and display the ASCII number associated with it. **10**

**Q. 7.** Write short note on any four : **5×4=20**

- (i) Local & global variables
- (ii) Sequential search
- (iii) Dynamic memory allocation
- (iv) Preprocessor directives
- (v) Functions & subroutines

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**5256**

## **B.Tech. Examination, 2013**

**(First Semester)**

**(M. E. and E. C. Branch)**

### **INTRODUCTION TO PROGRAMMING**

**Paper - III**

**Time : Three Hours]**

**[Maximum Marks : 100**

**Note :- Attempt any five question. All questions carry equal marks.**

1. (a) Write 5 common file commands in UNIX and list their common attributes.  
(b) Write an algorithm to check whether a number is prime or not.
2. (a) Convert the following numbers
  - (i)  $(10101011.0001)_2 = ( )_{10}$
  - (ii)  $(7AFD)_{16} = ( )_{10}$
  - (iii)  $(357.25)_8 = ( )_2$
  - (iv)  $(127.35)_{10} = ( )_{16}$

**[P. T. O.]**

(b) Explain the following :

- (i) Specification

- (ii) Top-down development

- (iii) Steppwise refinement

3. (a) Define the following terms with example in C language :

- (i) Keywords
- (ii) Identifiers

- (iii) Storage class

- (iv) Operator precedence

(b) What do you understand by nested looping? Write down the applications where nested looping is used. Also write down the necessary condition for writing nested loops.

4. (a) What are different parameter passing methods? What are the different scope rules for a variable and a function?

(b) Write a complete C program to find the sum of cubes of the digits of a 3-digit number.

5. (a) Write a C program to solve the quadratic equation  $ax^2+bx+c=0$ ;  
Where a, b and c are real constant.

(b) What is array? Write a program to find the sum of elements of each row of a matrix of order  $6 \times 5$ .

6. (a) What is dynamic memory allocation? Differentiate between calloc( ) and malloc( ) function.  
(b) Write a C program for implementation of stack.

7. Write short note on any two of the following :

- (a) Sorting array
- (b) Linked list
- (c) Macros
- (d) String handling functions

~~Impossible~~ *Adil Singh*

**2012**

**B.Tech. Examination, 2012**

**(Second Semester)**

**(C.S. & I.T. Branch)**

**Paper - III**

**INTRODUCTION TO PROGRAMMING**

**Time Allowed : Three Hours**

**Maximum Marks : 100**

**Note : Attempt any five questions. All questions carry**

**equal marks.**

**Q. 1. (a) Draw the functional block diagram of a**

**digital computer and discuss its components**

**in brief.**

**10**

(2)

(b) Draw the flow chart for finding out largest of

given three positive integers.

10

(iv) Associativity  
(v) Local & Global Variables

Q. 2. (a) Compare DOS, UNIX and WINDOWS

operating system in terms of their

characteristics.

10

(b) What is an algorithm ? Explain its salient

features.

10

Q. 3. (a) Convert the following :

10

(i)  $(1101101)_2$  to decimal

(ii)  $(4567.34)_8$  to binary

(iii)  $(B678A)_{16}$  to decimal

(7)

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2006

## B. Tech. Examination, 2012

(First Semester)

(M. E. and E. C. Branch)

### INTRODUCTION TO PROGRAMMING

Paper - III

Time : Three Hours ]

[ Maximum Marks : 100

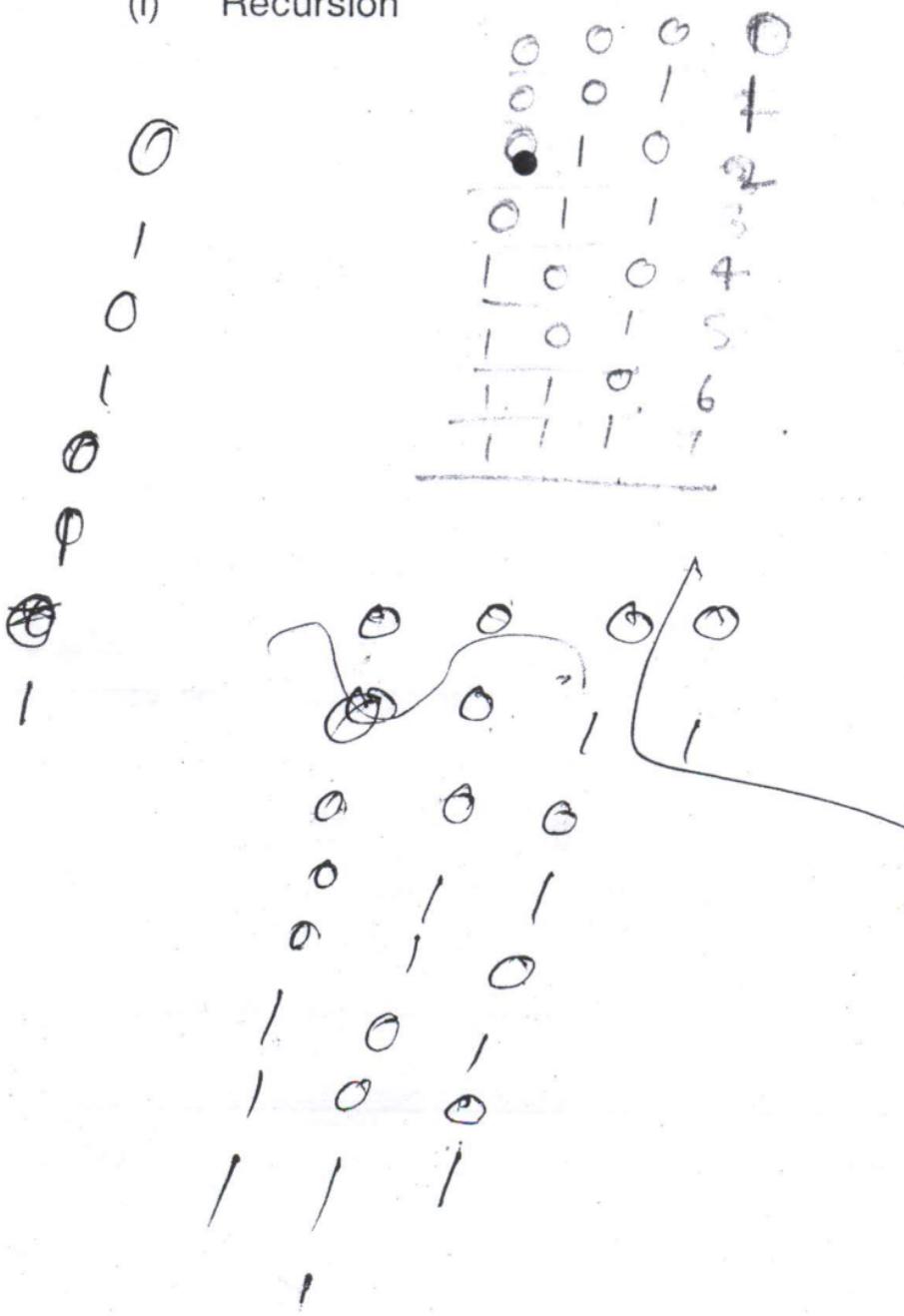
**Note :-** Attempt any **five** questions. All questions carry equal marks.

1. Attempt any **four** parts of the following : 20
  - (a) ✓ What is Software? Briefly explain application software and system software.
  - (b) ✓ Differentiate between compiler and interpreter.
  - (c) ✓ What is an algorithm? Differentiate between algorithm and flow-chart.

- (d) Draw the block diagram of a digital computer and discuss each component in brief.
- (e) Briefly explain macro computer, main frame computer and super computer by giving the example of each.
- (f) Compare and contrast the features of DOS and Unix operating system.
2. (a) What is Operating System? Discuss its roles and classify different types of operating systems.
- (b) What is Storage Class? Explain various storage classes provided in C with example.
3. (a) What is Loop? Discuss various types of loops in C. Write a program to find the sum of the following series :
- $$1^2 + 2^2 + 3^2 + \dots + 100 \text{ terms}$$
- 10
4. (a) What is 'switch' statement? Write the syntax and explain how it is different from 'if' statement?

- (b) Write a C-program to print a Fibonacci series till 100 terms.
- 10
5. (a) What is Array? Discuss various types of array. Write a program to find the transpose of a matrix of  $3 \times 3$  order.
- 10
- (b) What is Function? Explain call by value and call by reference method for parameter passing with example.
- 10
6. (a) What is Pointer? Write a C-program to swap the values of two variables with the help of pointer.
- 10
- (b) What is Dynamic Memory Allocation? Discuss the various functions of DMA. Write the syntax for each DMA function.
- 10
7. Write short notes on any four :
- 10
- (a) Linked list
- (b) Heap sort
- M  
SCS  
I.P.T.O.

- (c) Preprocessor
- (d) f open ( ) and f close ( ) function
- (e) Bit-wase operators
- (f) Recursion



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**B.Tech. Examination, 2013****(First Semester)****(M. E. and E. C. Branch)****INTRODUCTION TO PROGRAMMING****Paper - III****Time : Three Hours]****[Maximum Marks : 100**

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**[ P. T. O.**

- (b) Explain the following :
- Specification
  - Top-down development
  - Stepwise refinement
3. (a) Define the following terms with example in C language :
- Keywords
  - Identifiers
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  - Operator precedence
- (b) What do you understand by nested looping? Write down the applications where nested looping is used. Also write down the necessary condition for writing nested loops.
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6. (a) What is dynamic memory allocation? Differentiate between `calloc()` and `malloc()` function.
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7. Write short note on any two of the following :
- Sorting array
  - Linked list
  - Macros
  - String handling functions

**587**

**B.Tech. Examination, 2014**  
**(Second Semester)**  
**(C.S. & I.T. Branch)**  
**Paper - III**

**INTRODUCTION TO PROGRAMMING**

**Time Allowed : Three Hours**

**Maximum Marks : 100**

**Note :** Attempt any five questions. All questions carry equal marks.

- Q. 1.** (a) What do you mean by algorithm. Write an algorithm for swapping two elements without using an extra temporary variable.  
(b) What do you mean by operating system ? Differentiate between multiprogramming and multitasking operating system.
- Q. 2.** (a) Perform the following :  
(i)  $(10011.0011)_2 = (?)_{10}$   
(ii)  $(62)_{10} = (?)_2$   
(iii)  $(596)_{10} = (?)_8$   
(iv)  $(6FA)_{16} = (?)_2$   
(v)  $(9F2)_{16} = (?)_8$

**(2)**

- (b) Differentiate between :
- (i) Syntactic error and semantic error
  - (ii) Run time error and logical error
- Q. 3.** (a) What is the storage class ? Explain static and register storage class with example.
- (b) What are expressions and operators ? Explain various Bitwise operators.
- Q. 4.** (a) Write a C program to print prime numbers from 1 to 100.
- (b) Explain the working of do.... while loop with syntax and example.
- Q. 5.** (a) Write a C program to convert a given decimal number to binary.
- (b) What are the differences between malloc ( ) and calloc ( ).
- Q. 6.** (a) Differentiate between call by value and call by reference.
- (b) Write a C program to sort an array in ascending order.
- Q. 7.** (a) Differentiate between the following function :  
(i) fopen ( ) and fread ( )  
(ii) getc ( ) and putc ( )
- (b) Write a program to copy the content of one string to another string using a printer method.