

## SECOND SEMESTER

 EXAMINATION FOR THE FIRST YEAR SECOND SEMESTER BACHELOR OF SCIENCE IN INFORMATION SCIENCESCOURSE CODE: INS 1204 COURSE TITLE: PROCEDURAL PROGRAMMING

## INSTRUCTIONS:

SECTION A IS COMPULSORY ATTEMPT TWO QUESTIONS IN SECTION B

## QUESTION ONE (30 MARKS)

a. Define the following terms as used in programming ( 4 marks)
i. Linker
ii. Compiler
iii. Interpreter
iv. Assembler
b. Write a program to add all integers from 1 to 100 marks)
c. Write a program to find gross salary of an employee marks)
d. Write a program to find the greatest number in 3 numbers marks)

## QUESTION TWO (20 MARKS)

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a) What is the output of the following?
for ( \(\mathrm{i}=0 ; \mathrm{i}<4 ; \mathrm{i}++\) )
\{ for ( \(\mathrm{j}=2 ; \mathrm{j}<5 ; \mathrm{j}++\) )
    \{if ( \(\mathrm{j}==2\) )
    break;
    if ( \(\mathrm{i}==1\) )
    continue;
    printf("i=\%d j=\%d",I,j);
    \}
\}
```

b) Write a program that uses loops to produce the following: (5 marks)

| 2 | 4 | 6 | 8 | 10 |
| :---: | :---: | :---: | :---: | :---: |
| 3 | 6 | 9 | 12 | 15 |
| 4 | 8 | 12 | 16 | 20 |
| 5 | 10 | 15 | 20 | 25 |

c) Write a program that uses an if statement with logical OR to validate the users input to be in the range 1-10 (5 marks)
d. Define an interpreter and explain the difference between a compiler and an interpreter.
( 4 marks)
a) Using qualifiers write a program to show the sizeof
i. Short int
ii. Int
iii. Long int ( 4 marks)

## QUESTION

THREE (20 MARKS)
a. Write a program to print the following stars Sequence marks)
*
**
***
****
*****
b. Write a program to print Fibonacci series up to 100 ( 5 marks)
c. Write a Program to find factorial of a number marks)
d. Define an operator and using examples explain the following operators.
( 5 marks)
i. Bitwise operator
ii. Comma operator
iii. Logical operator
iv. Relational operator

## QUESTION FOUR (20 MARKS)

a. Write a program to use bitwise AND operator between the two integers.
( 5 marks)
b. Program to display series and find sum of $1+3+5+\ldots \quad+n$. ................................................................. ( 5 marks)
c. Write a program to display the first 10 multiples of 5 on a single line
d. Program to show sum of 10 elements of array \& show the average ( 5 marks)
//END

