MAASAI ![logo] MARA UNIVERSITY

2018/2019ACADEMIC YEAR

SECOND   SEMESTER

EXAMINATION FOR THE FIRST YEAR SECOND SEMESTER BACHELOR OF SCIENCE IN INFORMATION SCIENCES

COURSE CODE: INS 1204
COURSE TITLE: PROCEDURAL PROGRAMMING

DATE : 26TH APRIL 2019   TIME: 8.30- 10.30 AM

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   (6 marks)

c. Write a program to find   gross   salary of an employee   (5 marks)

d. Write a program to find the greatest number in 3 numbers   (5 marks)

QUESTION TWO   (20 MARKS)

a) What is the output of the following?   (2 marks)

for (i=0;i<4;i++)

{ for (j=2;j<5;j++)

{if (j==2)

break;

if (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   (5 marks)

        *

        **

        ***

        ****

        *****

b. Write a program to print Fibonacci series up to 100   (5 marks)

c. Write a Program to find factorial of a number (5 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+…   +n.
………………………………………………………(5 marks)

c.   Write a program to display the first 10 multiples of 5 on a single line
(5 marks)

d. Program to show sum of 10 elements of array & show the average (5 marks)

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