

Name:  
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES  
End Semester Examination, December 2019

Course: Introduction to Programming  
Program: BBA (AIS)  
Course code: DSIT 2006  
Instructions:

Semester: III  
Time: 03 Hours  
Max. Marks: 100

SECTION A

		Marks	CO
Q 1	Select the most appropriate answer.	2 X 10=20	CO <sub>1</sub>
	<p>i. How many times "IndiaBIX" is get printed?</p> <pre>#include&lt;stdio.h&gt; int main() {     int x;     for(x=-1; x&lt;=10; x++)     {         if(x &lt; 5)             continue;         else             break;         printf("IndiaBIX");     }     return 0; }</pre> <p>A. Infinite times B. 11 times C. 0 times D. times</p> <p>ii. Which of the following is not logical operator?</p> <p>A. &amp; B. &amp;&amp; C.    D. !</p> <p>iii. Which of the following statements should be used to obtain a remainder after dividing 3.14 by 2.1 ?</p>		

- A. `rem = 3.14 % 2.1;`
- B. `rem = modf(3.14, 2.1);`
- C. `rem = fmod(3.14, 2.1);`
- D. Remainder cannot be obtain in floating point division.

iv. Which of the following special symbol allowed in a variable name?

- A. \* (asterisk)
- B. | (pipeline)
- C. - (hyphen)
- D. \_ (underscore)

v. By default a real number is treated as a

- A. float
- B. double
- C. long double
- D. far double

vi. The keyword used to transfer control from a function back to the calling function is

- A** switch
- B** goto
- C** go back
- D** return

vii. How many times the program will print "IndiaBIX" ?

```
#include<stdio.h>
```

```
int main()
{
    printf("IndiaBIX");
    main();
    return 0;
}
```

- A. Infinite times
- B. 32767 times
- C. 65535 times

	<p>D. Till stack overflows</p> <p>viii. To print out a and b given below, which of the following printf() statement will you use?</p> <p><b>#include&lt;stdio.h&gt;</b></p> <p>float a=3.14; double b=3.14;</p> <p>A. printf("%f %lf", a, b);</p> <p>B. printf("%Lf %f", a, b);</p> <p>C. printf("%Lf %Lf", a, b);</p> <p>D. printf("%f %Lf", a, b);</p> <p>ix. To scan a and b given below, which of the following scanf() statement will you use?</p> <p><b>#include&lt;stdio.h&gt;</b></p> <p>float a; double b;</p> <p><b>A</b> scanf("%f %f", &amp;a, &amp;b);</p> <p><b>B</b> scanf("%Lf %Lf", &amp;a, &amp;b);</p> <p><b>C</b> scanf("%f %Lf", &amp;a, &amp;b);</p> <p><b>D</b> scanf("%f %lf", &amp;a, &amp;b);</p> <p>x. Input/output function prototypes and macros are defined in which header file?</p> <p>A. conio.h</p> <p>B. stdlib.h</p> <p>C. stdio.h</p> <p>D. dos.h</p>		
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**SECTION B**

<b>Q</b>	<b>Attempt any six questions</b>	<b>5 X 6=30</b>	
2.	What are different types of arithmetic operators.	<b>5</b>	<b>CO<sub>2</sub></b>
3.	Explain the use of printf and scanf function with example.	<b>5</b>	<b>CO<sub>3</sub></b>
4.	Write a programs to find a factorial of a number using functions.	<b>5</b>	<b>CO<sub>2</sub></b>

5.	Differentiate between array and variable.	5	CO <sub>3</sub>
6.	Write a C Program to Compute Quotient and Remainder.	5	CO <sub>3</sub>
7	Differentiate between logical and relational operators.	5	CO <sub>1</sub>
8.	Write a C program to check whether a number is positive or negative.	5	CO <sub>2</sub>
9.	Write a C Program to calculate average of three numbers using function.	5	CO <sub>2</sub>
<b>SECTION-C</b>			
Q	<b>Attempt any three questions :</b>	<b>10 X 3 =30</b>	
9.	Write a program in C to print factorial of a number.		CO <sub>3</sub>
10.	Why functions ( ) in required in C, explain its use with suitable example.		CO <sub>2</sub>
11	Write the output of the following program and explain the execution of each line of program.  <pre> /* Sending and receiving values between functions */ main( ) { int a, b, c, sum ; printf ( "\nEnter any three numbers " ); scanf ( "%d %d %d", &amp;a, &amp;b, &amp;c ); sum = calsum ( a, b, c ); printf ( "\nSum = %d", sum ); } calsum ( x, y, z ) int x, y, z ; { int d ; d = x + y + z ; return ( d ); } </pre>		CO <sub>4</sub>
12.	Read the program carefully and search the errors if any and write the correct program after removal of errors :  <pre> main( ) int m1, m2, m3, m4, m5, per printf ( "Enter marks in five subjects " ); scanf ( "%d %d %d %d %d", &amp;m1, &amp;m2, &amp;m3, &amp;m4, &amp;m5 ); per = ( m1 + m2 + m3 + m4 + m5 ) / 5 ; if ( per &gt;= 60 ) printf ( "First division" ); if ( ( per &gt;= 50 ) &amp; ( per &lt; 60 ) ) printf ( "Second division" ); </pre>		CO <sub>3</sub>

	<pre> if ( ( per &gt;= 40 ) &amp;&amp; ( per &lt; 50 ) ) print ( "Third division" ); if ( per &lt; 40 ) printf ( "Fail" ) } </pre>		
<b>SECTION-D</b>			
Q	Answer the Question	<b>20</b>	
14.	Write a program to determine whether a number is prime or not. A prime number is one, which is divisible only by 1 or itself.		<b>CO<sub>4</sub></b>