**Assignment Policy:**

1. Late assignments will NOT be accepted.

2. Cheating is forbidden in this course and will be considered a -10 mark.

3. All assignments must be keyboarded (handwritten work will NOT be accepted).

4. Assignments should be stapled and placed in an unsealed envelope.

5. You should add the cover page that has your full information to your answers sheet.

Substantial departures from the above guidelines will NOT be graded.

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1. **What is the output of the following C segments:**

Assuming input =1, x=5 , y=8

|  |  |
| --- | --- |
| switch(input){case 1:printf(“####\n”);break;case2:printf(“\*\*\*\*\n”);break;default: printf(“$$$$\n”);} | switch(input){case 1:printf(“####\n”);case2:printf(“\*\*\*\*\n”);default: printf(“$$$$\n”);} |
| if(x==5) { printf(“\*\*”);}if(y==8) { printf(“$$”);}else{ printf(“%%”);} | if(x==5) {printf(“\*\*”);}else if(y==8) {printf(“$$”);}else {printf(“%%”);} |

1. **Identify and correct error(s) in each of the following:**

|  |  |
| --- | --- |
| if(x==1);{printf(“\*\*”);}else{printf(“&&”);} | switch(input){ case 1: break; case x: printf(“\*\*”);  break;} |
| char faculty[20] = “Nursing”;switch (faculty){ case “Computer”: printf (“+++”); break; case “Maths”: printf (“&&&”) break; default: printf (“\*\*\*”);} | #define CODE\_LEN 3;char faculty[20], code[CODE\_LEN];faculty[20] = “maths”;strncpy(code, faculty[0], CODE\_LEN); |

1. **Write C statements to accomplish each of the following tasks:**

3.1) determine whether **i** is less than or equal to y and print an appropriate message accordingly.

3.2) determine whether **num** is positive or negative, if positive then determine if it is odd or even. And print appropriate message in each different case.

**4) Write a C program that asks the user to enter an arithmetic operators ('+','-','\*' or '/') and two operands of type integer and perform the corresponding calculation on the operands, then print the result.** *Use switch to accomplish the task..*

**5) What is the output of the following code for the following inputs:**

|  |  |  |  |
| --- | --- | --- | --- |
| *University* | *First* | *Second* | *Output* |
| *king saud university* | *4* | *5* |  |
| *king saud university* | *5* | *2* |  |
| *King Saud University* | *5* | *4* |  |
| *King Saud University* | *10* | *7* |  |

#include <stdio.h>

#include <string.h>

#define UNI\_LEN 30

#define INITIALS\_LEN 10

int main (void)

{

 char university[UNI\_LEN];

 char initials[INITIALS\_LEN];

 int first, second;

 int len = first + second;

 printf (“Enter first integer> “);

 scanf (“%d”, &first);

 printf(“Enter a second integer> “);

 scanf (“%d”, &second);

 printf (“Enter a University Name> “);

 scanf (“%s”, university);

 if ((university[first] >= ‘A’) && (university[first] <= ‘Z’))

 {

 strncpy (initials, &university[first], len - first);

 initials[len-first] = ‘\0’;

 }

Else

 {

 strncpy (initials, university, INITIALS\_LEN – 1);

 }

printf (“%s \n”, initials);

Return (0);

}

**6) Write a C program that swaps (exchanges the values) of two integers x and y in case x is greater than y. The program should subtract y from x (x – y) if x is less than y. Finally, multiply x by y (x \* y) if they are equal.**

**7) rewrite the following if statement using conditional operator**

if(x>=y)

max=x;

else

max=y;

**8) write if statement to check a profit value​, if the profit exceed 30,000 then print (the profit exceed the expectations​) , if the profit less than 30,000 and more than 10,000 then print ( high) , if the profit between 10,000 and 5000 then print (expected) , if less than 5000 then print (low).**