

Marks scored:

KATHMANDU UNIVERSITY
End Semester Examination [C]
July, 2017

Level : B.E./B. Sc./B. Tech.
Year : I

Course : COMP 103
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date : JUL 10 2017

SECTION "A"

[20Q × 0.5 = 10 marks]

Choose the most appropriate answer.

1. The format specifier %x is used for representing?
a. float b. hex c. int d. double
2. Which of the following variable name is allowed in C?
a. l*1 b. 2lO c. l_2O d. l+2O
3. The keyword used to transfer control from a function back to the calling function is _____.
a. return b. switch c. goto d. struct
4. Which of the following operator takes only integer operands?
a. + b. * c. / d. %
5. What is the output of following section of program ?

```
int main()
{
    int c = - + 2;
    printf("c=%d", c);
    return 0;
}
```

- a. 2 b. -2 c. -1 d. Error
6. What is the output of following section of program ?

```
int main()
{
    int i=01289;
    printf("%d", i);
    return 0;
}
```

- a. Error b. 01289 c. 0128 d. 128

7. What is the output of following section of program ?

```
#define x 3+1
main()
{
  int i = x*x*x;
  printf("%d",i);
}
```

- a. 10 b. 20 c. 30 d. 60

8. Which of the following options shows correct hierarchy of arithmetic operations in C ?

- a. / + * - b. * - / + c. + - / * d. / * + -

9. The following code 'for(;;)' represents an infinite loop. It can be terminated by.

- a. break; b. exit(0); c. abort(); d. gets();

10. What is the output of following section of program ?

```
main()
{
  int i = 0;
  while (i < 3)
    i++;
  printf("%d",i);
  return 0;
}
```

- a. 0 b. 1 c. 2 d. 3

11. Which is not a loop structure?

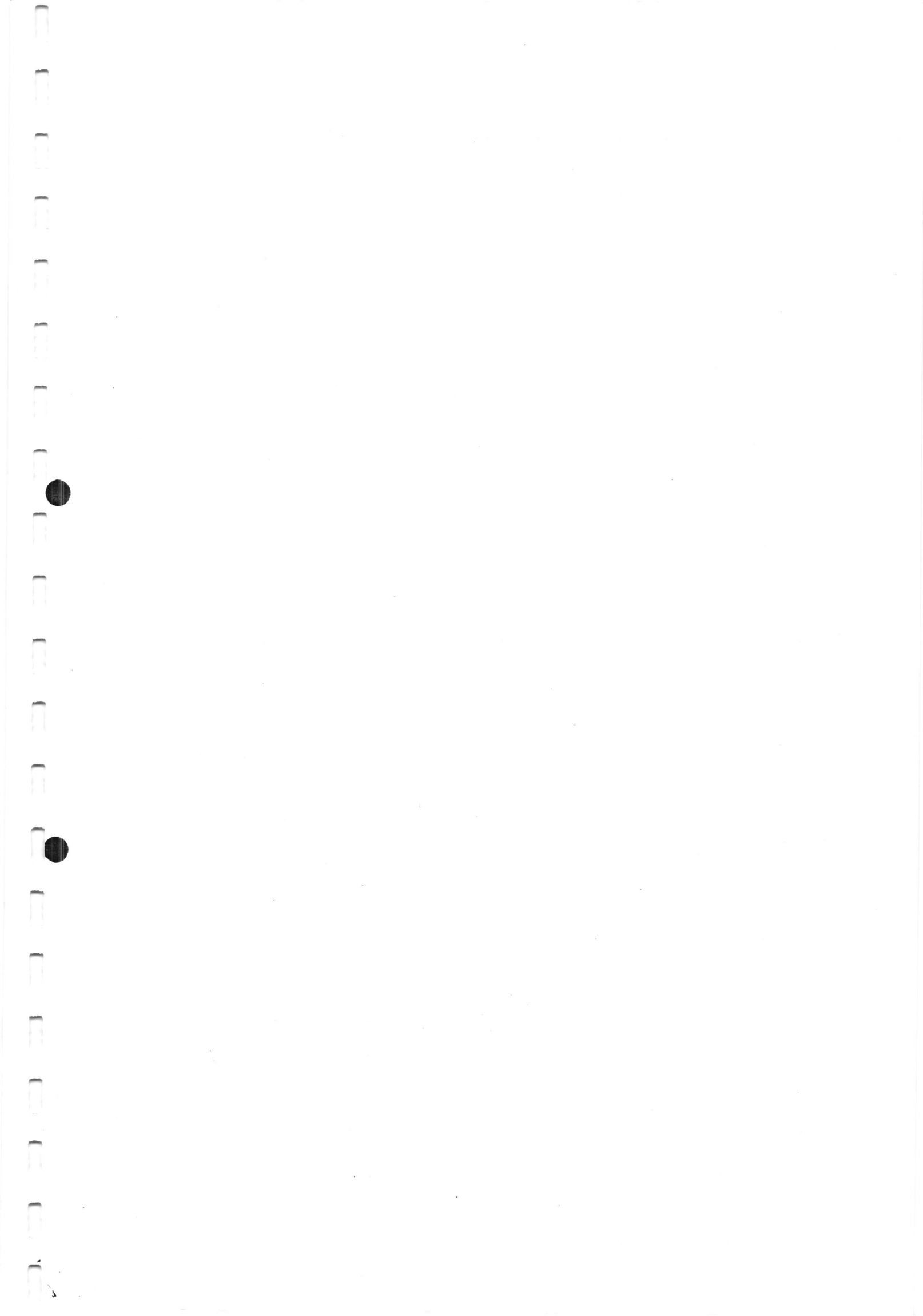
- a. for b. while c. do while d. until

12. What is the output of following section of program ?

```
int main()
{
  static int x = 3;
  x++;
  if (x <= 5)
  {
    printf("%d",x+2);
  }
  return 0;
}
```

- a. 3 b. 4 c. 5 d. 6

13. The order in which actual arguments are evaluated in function call is
a. from left b. from right c. from middle d. compiler dependant
14. Any C program
a. Must contain one function b. Need not contain function
c. Input data d. Array variable
15. What is meaning of following declaration ?
int arr[10];
a. Array of size 10 that can handle address values
b. Array of size 10
c. Integer array of size 10
d. Character array
16. The declaration *int arr[10][20];* is
a. 1-D Array b. 2-D Array c. 3-D Array d. 4-D Array
17. If the two strings are identical, then *strcmp()* function returns
a. 1 b. -1 c. 0 d. 2
18. How you will print *\n* on the screen ?
a. *printf("\n");* b. *echo "\n";* c. *printf('\n');* d. *printf("\n");*
19. Which of the following are themselves a collection of different data types?
a. String b. Structure c. Array d. Character
20. How much memory space is reserved by this expression?
p = (char) malloc (400*sizeof(char));*
a. 400 bytes b. 800 bytes c. 1200 bytes d. 1600 bytes



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F. M. : 40

SECTION "B"

[6 Q.× 4 = 24 marks]

Attempt *ANY SIX* questions:

1. What are the basic rules of variable declarations? Explain different constant that can be used in C programming language. [2+2]
2. Explain the meaning of automatic type casting and explicit type casting with the help of suitable example. Describe Conditional operator with appropriate example. [2+2]
3. What's the use of logical operator in decision control statement? Explain with suitable examples. [2+2]
4. Discuss the iteration and recursion with suitable example? Write a program to find the factorial of number using recursion. [1+3]
5. What is the importance of *main()* functions in C ? Write a program to find whether given number is prime number or not with the help of user defined function. [1+3]
6. What do you understand by storage class, discuss in detail the different storage class used in C.
7. What do you mean by NULL pointer? Explain the difference between *malloc()* and *calloc()* functions used in C ?

SECTION "C"

[2 Q.× 8=16 marks]

Attempt *ANY TWO* questions:

8. What do you mean by function prototypes, function definition and function call? What are the advantages of using user defined function and explain different types of user defined function with the help of suitable example. Write a program to check whether given number is perfect number or not, using function. [1.5+1+2+3.5]
9. What do you mean by array and how it is different than pointer? Explain how you can initialize a character array. Discuss how you can pass an entire array and an individual array element to the function with the help of suitable example. Write a program to store N binary numbers in a one dimensional array and calculate its equivalent decimal number with the help of the function. [2+1+2+3]
10. Compare Structure and Union with suitable example. Write a program that defines a structure called *Player_Info* with suitable attributes (Id_no, Age, Name, Country) and reads the data for 10 players of different country. Your program should also display the records in ascending order according to *the age* of players. [3+5]

