

END TERM EXAMINATION

FIRST SEMESTER [MCA] DECEMBER 2007

Paper Code: MCA105

Subject: Problem Solving Using C

Time: 3Hours

Maximum Marks: 60

Note: Q1 is compulsory. Attempt any four questions from Q.2 to Q.7.

- Q1.** (a) The indirection operator is the _____
- (i) Asterisk (ii) Ampersand
(iii) Dollar sign (iv) Plus sign
- (b) You can pass _____ to functions.
- (i) Copies of individual structure members (ii) Copies of entire structures
(iii) Pointers to Structures (iv) All of above
- (c) The function whose prototype is void get data (item and thing); receives _____
- (i) a pointer to a structure (ii) a reference to a structure
(iii) a copy of structure (iv) nothing
- (d) When you omit parameters from a function call, value can be provide by _____
- (i) Formal parameters (ii) reference parameters
(iii) Over loaded parameters (iv) default parameters.
- (e) Output of: - if (3.14)
- ```
printf ("Hello");
else
printf ("Bye");
```
- is: -
- (i) Hello (ii) Bye  
(iii) None (iv) Both
- (f) Out of: - void main ()

```
{int i = 4;
While (i > 0)
{
Printf ("%d",i);
i = -1;
}
}
```

(i) 4 3 2 1 (ii) 4  
(iii) 4 3 (iv) none of above

(g) Library header file usually contain \_\_\_\_\_

(i) Complete functions (ii) Parts of functions  
(iii) Function prototype for functions stored in other files.  
(iv) Function bodies, but not function headers.

(h) When a variable exist or is accessible it is said to be \_\_\_\_\_

- (i) Immediate
- (iii) In scope

- (ii) In the path
- (iv) Available

- (i) The function that takes arguments to set the bits of Count is \_\_\_\_\_
- (i) setf ()
  - (ii) bitsetf ()
  - (iii) ios ()
  - (iv) flag ()

**Q2.** What is Entry Control Loop? How it differs from Exit Control Loop? Write a Program to generate the prime numbers between 1 to 100 using exit Control Loop?

**Q3.** (a) What is macro? How does it differ from function? Write a program using macro to add two numbers.

(b) What are different storage classes in C?

**Q4.** (a) Differentiate between: -

- (i) Call by reference and call by value
- (ii) Structure and Union

(b) Write a program to sum the series  $1 - x^2/2! + x^4/4! - x^6/6!$ .

**Q5.** Write a program to store the data of the Employees, department wise in a file. You should be able to generate the following report: -

- (a) Print the strength department wise.
- (b) Print the details of highest paid employee.

**Q6.** (a) Write a function to evaluate determinate of order 2. Use it to evaluate the Determinate of order 3.

(b) What do you understand by preprocessor directives? Give examples.

**Q7.** Write short notes on any two of the following: -

- (a) Pointer to function
- (b) Actual and formal parameters
- (c) Enumerated data types.