

(Please write your Exam Roll No.)

Exam Roll No.

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# END TERM EXAMINATION

FIRST SEMESTER [MCA] DECEMBER-2008

**Paper Code: MCA 105**  
**using C**

**Subject: Problem solving**

**Paper Id: 44105**  
**2008)**

**(Batch: 2004-**

**Time: 3 Hours**  
**Marks: 60**

**Maximum**

**Note: Attempt any five questions. All questions carry 12 marks each.**

- Q.1 Explain the following and describe the correct output for i=5
- (a)  $i = (i++) * (++i)$
  - (b)  $i = (++i) * (++i)$
  - (c)  $i = (i++) * (i++)$
  - (d)  $i = (++i) * i$
- Q2. Explain Evidid's GCD algorithm and provide algorithm using pseudocode method.
- Q3. List '20' C-keywords and explain each of them. Provide C-program to support your explanation. You are free to incorporate maximum number of C-keywords in a single C-program.
- Q4. (a) Discuss the properties of linker and loader. How linker and loader works for C-programming language. Is standard library files are also helpful for this purpose.
- (b) Explain the use of following header files :
- (i) Stdio.h
  - (ii) Stdlib.h
  - (iii) Conio.h
  - (iv) Process.h

(v) Alloc.h

- Q5. (a) Write a C-program to find a factorial of any number using recursion techniques.
- (b) Write a C-program to print ASCII value of any character.
- Q6. What do you understand by conditional statement and loop statement? Explain all the variants of if.....statement.
- Q7 Explain the difference between:
- (a) Structure and Union
- (b) Dynamic memory allocation and Static memory allocation
- (c) "Array of pointers" and "pointers to array".
- Q8. Write short notes on **any three:**
- (a) Macro with arguments
- (b) # and ## operators.
- (c) Multiple file programming
- (d) Linear pattern search
- (e) Storage classes

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