

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

MCA (E-I)(2015 Batch) (Sem.-3)

SYSTEM PROGRAMMING

Subject Code : MCA-305A

Paper ID : [74077]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTIONS-A, B, C & D** contains **TWO** questions each carrying **TEN** marks each and students has to attempt any **ONE** question from each **SECTION**.
2. **SECTION-E** is **COMPULSORY** consisting of **TEN** questions carrying **TWENTY** marks in all.
3. **Use of non-programmable scientific calculator is allowed.**

SECTION-A

1. Explain the detailed pass 2 of two pass assembler.
2. Explain conditional macro expansion.

SECTION-B

3. Explain the design of absolute loader.
4. Explain the following :
 - a. Dynamic linking.
 - b. Types of editors

SECTION-C

5. Explain databases used in lexical phase of compiler.
6. Write a short note on :
 - a. YACC
 - b. Debugger.

SECTION-D

7. What are the functions of operating systems? Explain the different types of operating systems.
8. Explain the following :
 - a. Device drivers
 - b. Booting techniques

SECTION-E

9. **Write briefly :**
 - a. Define line editor.
 - b. What is the use of machine-op table in design of assembler?
 - c. Write the basic instruction format.
 - d. Define macro instruction definition.
 - e. Explain translator.
 - f. Explain the need of lexical analysis phase in compiler.
 - g. What is direct linking loader?
 - h. Explain machine independent optimization.
 - i. Define interrupt and interrupt handling.
 - j. What is page map table?