

2018

BCA 3rd Semester Examination

SYSTEM PROGRAMMING

PAPER—2102

Full Marks : 70

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any four from the rest.

1. Answer any five questions :

5×2

(a) Compare macro and subroutine.

(b) What is the function of base register ?

(c) What do you mean by forward references ?

(Turn Over)

- (d) What is the disadvantage of high-level language ?
- (e) What is pre-processor ?
- (f) What is the role of linker ?
- (g) What is cross-compiler ?

2. (a) What is macro ?

(b) Draw flowcharts for macro call within macro. Also explain it.

(c) Write down some applications of linker.

2+9+4

3. (a) Explain the various phases of compiler.

(b) Distinguish directive and indirective statement.

(c) Write an assembly language program to multiply two numbers using macro. (The multiplication operation is performed within macro and values are supplied as arguments).

5+3+7

4. (a) What is loader ? What are the functions of it ?
(b) Explain binder.
(c) Compare dynamic linking and dynamic loading.
- 5+5+5
5. (a) What is the function of Pass-1 assembler ? Write down the flow chart of pass-1 assembler.
(b) What is binding ? Write the difference between static binding and dynamic binding.
(c) What is the difference between one pass assembler and two pass assembler ?
- (2+5)+(2+3)+3
6. (a) What is the difference between directive and indirective statement ?
(b) Compare MAR and MBR with diagrammatic representation.
(c) What are the advantages of using base and index registers in addressing mode ?
(d) What is an overlay structure ? What is its use ?

3+3+4+5

7. Write short note on any *three* :

3×5

- (a) Debug monotor ;
 - (b) Text editor ;
 - (c) Interpreter ;
 - (d) Load-and-go assembler ;
 - (e) Absolute Loader.
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