

B.E.(with Credits)-Regular-Semester 2012-Computer Technology Sem V
CT504 - System Programming

P. Pages : 2

Time : Three Hours



GUG/W/16/3713

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Illustrate your answers wherever necessary with the help of neat sketches.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.

1. a) With the help of suitable example, explain simple batch monitor system from the user's view-point. 6
- b) What are system programs ? Explain different components of system programming. 10

OR

2. a) Give the differences between:- 8
- i) Multiprocessing & Multiprogramming.
 - ii) Open & closed subroutine.
 - iii) Traffic controller & scheduler.
 - iv) Fragmentation & Paging.
- b) Explain in detail the functions & facilities of operating system from user viewpoint. 8
3. a) Give & explain the micro flowchart for ADD instruction of IBM 360/370. 8
- b) Explain in detail how physical addresses are computed in IBM 360/370. Also explain the used Base & Index register with the help of example. 8

OR

4. a) List different instruction formats for IBM 360/370 m/c with example. 8
- b) Explain the General m/c structure with neat sketch. 8
5. a) Draw the detailed flowchart for Pass 1 & Pass 2 of two pass assembler. 12
- b) Explain the data bases used in pass 1 & pass 2 of macroprocessor. 4

OR

6. a) Draw & Explain the one pass macroprocessor for macro definition within macros. 12
- b) Draw the table formats for. 4
- i) Symbol Table
 - ii) POT
 - iii) MOT
 - iv) Base Table

7. a) Explain the following Loader Schemes. 12
i) Linkage Editor
ii) BSS Loader
iii) Dynamic Binder
- b) Describe the functions of RLD, ESD, TXT & END cards briefly. 4

OR

8. a) Explain the design of Direct Linking loader in detail. 10
- b) List the advantages of binding at load time over binding at assembly time with an example. 6
9. a) What are device drivers ? Explain in brief why they are called extensions to the operating system. 6
- b) Write the installation procedure for device drivers in detail. 10

OR

10. a) Explain in brief various databases used in Lexical phase. 6
- b) Write short notes on:- 10
i) Token Recognition.
ii) CROSS computation.
iii) System calls.
