Total No. of Questions : 8] *[Total No. of Printed Pages : 1*

Roll No .....

MCSE-204

M.E./M.Tech., II Semester Examination, June 2020

System Programming

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Give the brief overview of language processors? Give example and features of each.
   b) Draw flowchart for instruction fetch and execution of general machine structure.

2. a) Explain the structure of macro definition table and Argument List Array (ALA) with the help of example.
   b) Discuss briefly the steps involved in designing an Single Pass assembler.

3. a) Explain with example concepts of relocating and linking.
   b) Elaborate the analysis and synthesis phases of compiler. Clearly mention the working of each phase. Give one example in support.

4. a) How many techniques are available for dynamic storage? Briefly explain each of them.
   b) Explain concurrentisation and vectorisation of programs.

5. a) Differentiate between loop carried and loop independent dependences? Give example.
   b) Explain briefly:
      i) Dynamic compilation
      ii) Data partitioning

6. a) Explain unified algorithm for data flow analyse.
   b) Describe important design issues in distributed operating system.

7. a) Explain structure of multiprocessor operating system with suitable example.
   b) Describe about advanced models of protection.

8. a) Discuss about Access Matrix Model.
   b) Write short notes:
      i) Amoeba
      ii) Distributed scheduling

******