

BTS (C) – V – 08 – 057 – F

B. Tech Degree V Semester Examination, November 2008

IT/CS 502 SYSTEM PROGRAMMING (2006 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART – A

(Answer ALL Questions)

(All questions carry EQUAL marks)

(8 x 5 = 40)

- I. (a) Explain the basic Assembler features.
(b) Explain program relocation with example.
(c) Explain a simple Bootstrap loader.
(d) Explain the processing of an object program using Linking loader with the help of a diagram.
(e) Compare a macro and a subroutine with examples.
(f) Compare conditional macro expansion and recursive macro expansion.
(g) Explain the different functions performed by an operating system.
(h) What are virtual machines? Explain its working.

PART – B

(4 x 15 = 60)

- II. Explain the different machine dependent features and machine independent features. (15)
OR
III. Explain a two pass Assembler with algorithms. (15)
IV. Explain the design of an Absolute Loader with algorithm. (15)
OR
V. Explain the pass 1 and pass 2 algorithm for a Linking Loader. (15)
VI. Explain the algorithm for a one-pass Macro processor. (15)
OR
VII. Explain the design of a macro pre-processor. (15)
VIII. Explain (i) User Interface (ii) Run time Environment in an Operating System. (15)
OR
IX. Explain (i) Distributed Operating Systems (ii) Object Oriented Operating Systems. (15)

