Code: 9A15501

R09

B.Tech III Year I Semester (R09) Supplementary Examinations June 2017
SYSTEMS PROGRAMMING
(Computer Science & Systems Engineering)

Time: 3 hours   Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

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1 (a) What is BIOS? Explain the process of BIOS booting process.
   (b) Discuss in detail about the instruction execution and addressing methods.

2 (a) Explain in detail about various features of assembly language.
   (b) What are segment directives? Explain in brief.

3 (a) Explain about the flags register with suitable example.
   (b) With an example, explain the use of INT 21H and INT 16H instructions for keyboard.

4 (a) Write an ALP for reading a string and converting all the characters of the string into uppercase.
   (b) Discuss about the addition and subtraction of binary data with example.

5 (a) Explain about the INT 21H functions for disk writing and reading.
   (b) Write and explain assembly language code segment for creating a new file and write "Hello world" into the file.

6 (a) Discuss in detail about macro directives.
   (b) Explain the concept of nested macros with an example.

7   Write short notes on the following:
   (a) Assemblers.
   (b) Loaders.
   (c) Linkers.

8   Discuss in detail about various phases of a compiler.

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