

B.Tech. 5th Semester (F) Scheme (IT)
Examination, December-2018
SYSTEM PROGRAMMING & SYSTEM
ADMINISTRATION
Paper-IT-303-F

Time allowed : 3 hours [Maximum marks : 100]

Note : Question No. 1 is compulsory. Attempt five questions selecting one question from each section.

1. Explain the following: 20
 - (a) Compiler
 - (b) Demand paging
 - (c) AWK utility
 - (d) Booting Process

Section-A

2. (a) What is compiler? Explain compilation process in detail. 10
- (b) What is loader? Explain reallocating loader and "assemble-and-go" loader scheme in detail. 10
3. (a) Differentiate between compiler, interpreter and assembler. 10
- (b) What is assembler? Explain one-pass and two-pass assembler in detail. 10

Section-B

4. (a) What is macro? Explain macro instruction arguments and macro calls within macros. 10
- (b) What is macro? Explain conditional macro expansion and macro instruction defining macros. 10

5. (a) What is Operating system? Explain CPU scheduling in detail. 10
- (b) Write a short note on the following: 10
 - (a) i-nodes
 - (b) directory structure of UNIX in detail.

Section-C

6. Explain the following in context of UNIX 20
 - (a) File permissions & changing permission modes.
 - (b) Redirection files: Standard input, Standard output & Standard error.
7. Explain the UNIX commands for the following: 20
 - (a) Printing files <http://haryanapapers.com>
 - (b) Process management
 - (c) Looking at the file contents
 - (d) Rearranging files
 - (e) Translating characters

Section-D

8. (a) Explain shell programming. What do you mean by interactive shell scripts? 10
- (b) Differentiate between Bourne shell and C-shell. Also explain interactive shell scripts. 10
9. Write short notes on the following: 20
 - (a) Backups and restoration
 - (b) Features of Linux operating system