No. of Printed Pages : 3

CS-63

BACHELOR OF COMPUTER APPLICATIONS
(Pre-Revised)
Term-End Examination
01244
December, 2014

CS-63 : INTRODUCTION TO SYSTEM SOFTWARE

Time : 2 hours *Maximum Marks : 60*

Note : *Question number **1** is **compulsory**. Answer any **three** questions from the rest.*

1. (a) Write an algorithm and draw corresponding flow chart to check whether the given number is an Automorphic number or not. 8

(Hint : Square of the given number contains the number itself at the end :

e.g. : 6, 36

5, 25)

(b) Explain the various phases of compiler design. 8

(c) Write a shell program to convert a decimal number to its binary equivalent. 7

(d) What is a debugging system ? Describe the functions and capabilities of an interactive debugging system. 7

2. (a) What is an *inode* in UNIX ? Explain with the help of a diagram. *4*

(b) Explain the design and implementation of a two-pass assembler. *6*

3. (a) Generate parse trees for the following expressions : *5*

(i) $a + b * c - d^3$

(ii) $x * w^2/y - 2 + 1$

(b) Write the UNIX commands for the following : *5×1=5*

(i) To change the password for a given user.

(ii) To change the shell prompt from $ to !

(iii) To display the hard disk space used.

(iv) To schedule a particular command at a given time.

(v) To kill a process with PID.

4. (a) Describe multiprogramming with dynamic partitions with necessary diagrams. *5*

(b) Explain, with an example and a neat diagram, the steps to handle a page fault in a paged memory management scheme. *5*

5. (a) Explain the features of Network operating system. Also, give two examples for Network operating system. *5*

(b) Explain the following UNIX commands with an example : *5*

(i) grep

(ii) tee

(iii) ps

(iv) tr

(v) ln