

BT 2/M06

8248

Fundamental of Computers & Programming in C (2004-05)

Paper : CSE-101 E

Time : Three Hours]

[Maximum Marks : 100

Note :- Attempt **FIVE** questions in all, selecting at least **ONE** question from each unit.

UNIT-I

1. Convert the following hexadecimal numbers to binary and decimal :
A2B5, 1110, 5678, EFCD, GOLO. 5×4
2. (a) How information is represented inside the computer ? 10
(b) What are ASCII code and portfix notations ? 10

UNIT-II

3. Differentiate between :
 - (a) Linker and Loader
 - (b) Internet and WWW
 - (c) ISP and ISDN
 - (d) Compiler and Interpreter. 5×4
4. (a) What do you mean by recursive algorithms ? Can recursive algorithms be represented by flow charts ? Discuss with the help of an example. 10
(b) Discuss the working of E-mails. Which protocols are used for E-mail ? 10

UNIT-III

5. (a) Which of the following are invalid variable names and why ?
Interest Paid, si-int, AVERAGE, percent, 134, Float, Name, weight in kg. 4
(b) What is the purpose of following in print f :
% e, % h, %x, % g ? Give one example of each. 8

- (c) Write a C program to convert given number of days to equivalent no of years, weeks and days e.g. 375 days equal 1 year, 1 week and 3 days. Ignore leap years. 8

6. (a) For ($i = 0; i \leq 20, i++$)
print f ("%d", i);

In this for loop if $i++$ is replaced with $++i$, what values will be printed? Justify. 6

- (b) Write a function to check whether a given number is prime or not. 6

- (c) Differentiate between local, global and external variables. Discuss their scope with the help of examples. 8

UNIT-IV

7. (a) Without using array related syntax, find whether a string is Palindrome or not. 10

- (b) $\text{int } i, j, = 25; \text{int } *pi, *pj = \&j; *pj = j + 5;$
 $i = *pj + 5; pi = pj; *pi = i + j;$

Suppose value assigned to i begins at F 9C Hexa and of j begins at F 9E Hexa. Justify following answers :

- (i) What value is represented by pi and pj ? 5

- (ii) What final value is assigned to $*pi$ and i ? 5

8. (a) Give an example of each showing proper syntax :

- (i) Nested array structures 5

- (ii) Enumerated data type. 5

- (b) Create a file to store your detailed marks card. Do not use your real name. Also mention the commands that can be used to open, close, scan and print the contents of this file. 10