

B.E. / B.Tech DEGREE EXAMINATION, JANUARY 2009

First Semester

GE 2112 – FUNDAMENTALS OF COMPUTER PROGRAMMING

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

PART – A (10 X 2 = 20 marks)

1. State the characteristics of computers.
2. How will you classify computer systems?
3. Differentiate Application software and System software?
4. Name any two Internet applications.
5. Draw a flowchart to find the maximum among the three numbers.
6. Name any four Application Software Packages.
7. Write the following conditions using “?” operator.
Salary = $\begin{cases} 4x+100 & \text{for } x < 40 \\ 300 & \text{for } x = 40 \\ 4.5x+150 & \text{for } x > 40 \end{cases}$
8. Write the limitations of using getchar() and scanf() functions for reading strings.
9. Define a C function to exchange the content of two variables.
10. Write the format of the following functions: (a) fseek (b) fopen.

PART –B (5X16=80marks)

11. a) i) Explain the evolution of computers. (8)
ii) With suitable diagram explain about computer organization. (8)
(OR)
b) With suitable example, explain about Number Systems. (16)
12. a) Explain the various types of software with suitable examples. (16)
(OR)
b) Explain in detail about the software development steps. (16)
13. a) i) Draw a flowchart to multiply two matrices. (8)
ii) Write the pseudo code to multiply two matrices. (8)
(OR)
b) i) What is an algorithm? Write an algorithm to print even numbers from 2 to 100. (8)
ii) Explain any 8 Formatting features of an Application packages. (8)
14. a) i) Explain the various looping constructs. Give an example for each and explain the Working of the construct. (8)
ii) Write a C program to find the sum of the series:
 $S = 1+x+x^2+x^3+\dots+x^n$ (8)
(OR)
b) i) write a C program to print the given numbers in reverse order. (8)
ii) Explain any 2 constructs used for decision making. Given an example for each and Explain the working of the construct. (8)
15. a) i) Explain about the different parameter passing methods with examples. (8)
ii) Write notes on storage classes in C. (8)
(OR)
b) i) Explain about structures and unions suitable examples. (8)

ii) Write notes on Pointers.

(8)