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SEAT No. :

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[5034]-104

M.Sc. - I

ELECTRONIC SCIENCE

EL1UT04 : Advanced 'C' Programming

(2013 Pattern) (Semester-I) (Credit System)

Time : 2½ Hours]

[Max. Marks : 40

Instructions to the candidates:

- 1) Attempt any four questions.*
- 2) All questions carry equal marks.*
- 3) Figures to the right indicates full marks.*

Q1) Answer the following:

- a) State the various memory allocation functions with their task. **[4]**
- b) Explain union in 'C' with suitable example. **[3]**
- c) Discuss the scope and lifetime of variables. **[3]**

Q2) Answer the following:

- a) Write a 'C' - program to convert decimal number to binary number. **[4]**
- b) Explain following functions with suitable example **[3]**
 - i) fgetc ()
 - ii) rewind
- c) Give comparison between recursion and iteration. **[3]**

Q3) Answer the following:

- a) What is polymorphism? State and explain various types of polymorphism. **[4]**
- b) Explain the various types of storage class. **[3]**
- c) A 7-segment display is interfaced to PC through a 7447 IC. Write a c program that will cause the display to show counting up and down. **[3]**

P.T.O.

Q4) Answer the following:

- a) Write a c program to concatenate two strings. [4]
- b) Explain the concept of inheritance with its different types. [3]
- c) Give the difference between 'call by value' and 'call by reference'. Illustrate it with the help of suitable C program. [3]

Q5) Answer the following:

- a) Write a program to create a file which contains ten integer numbers, and then reads all numbers of this file and separately writes odd and even numbers to another files 'odd.dat' & 'even.dat' respectively. [5]
- b) Write a program in C to draw sine wave using graphics.h file. [5]

Q6) Answer the following:

- a) Write a C program using pointers to compute the sum of all elements in one dimensional array. [5]
- b) Write a short note on 'video adapter and video graphics modes'. [5]

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