

**B.TECH. DEGREE EXAMINATION, MAY 2015****Fourth Semester**

Branch : Electrical and Electronics Engineering

EE 010 406—COMPUTER PROGRAMMING (EE)

(New Scheme—2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

*Draw neat flow charts for the programs.
Write neat and efficient C programs wherever needed.*

Part A*Answer all questions.**Each question carries 3 marks.*

1. Mention any *three* keywords and give their meanings.
2. What are the differences between “While” and “do-while” statements ?
3. Find if there is any error in the following code ?

```
int * p = & 144 ;
```

4. How does a structure differ from an array ?
5. What is a binary file ? Where is it used ?

(5 × 3 = 15 marks)

Part B*Answer all questions.**Each question carries 5 marks.*

6. With examples, explain :
 - (i) if - else ;
 - (ii) switch.
7. Write a statement to create 3 × 3 array and assign a value 1 to the elements of the first row, 2 to the elements of second row and 3 to the elements of third row.
8. With the help of examples, explain accessing a variable through its pointer.
9. With an example, give the general syntax of the Union.
10. Describe two different approaches to update a data file. Which is better ? Why ?

(5 × 5 = 25 marks)

Turn over

Part C

*Answer all questions.
Each question carries 12 marks.*

11. (a) Explain the precedence and associativity of operators in C.
(b) Describe the Library functions available in C.

Or

12. Write a C program to determine and print all the two-digit Pythagorean triplets. (A Pythagorean triplet is a set of three integer numbers i, j, k such that $i^2 + j^2 = k^2$.)
13. Write a program to accept a matrix and determine whether it is a symmetric matrix.

Or

14. Write a program to sort and print the names of 72 students of a class in alphabetic order.
15. Write a function that takes a string as an argument and return its length as output, without using library functions.

Or

16. Using Pointers, write a program to find the largest of N integers.
17. Write a C program to read the details of employees working in a company. The details include name, employee number, age, date of joining, designation and salary. Make use of a structure to develop the program.

Or

18. Explain three dynamic memory allocation functions. What is singly linked list and doubly linked list? Explain.
19. Write a program to copy one file to another, while doing so, replace all the lower case letters to their equivalent uppercase letters.

Or

20. Write a C program to find the square and cube of an integer using macro.

(5 × 12 = 60 marks)

