

```

12. void main()
13. {
14.     struct student m = fun();
15.     s.name = "turing";
16.     print("%s", m.name);
17. }

```

- (e) (i) Differentiate between local and global variables and formal parameters.

OR

- (ii) What are the various stages in a programme development? Explain.

—x—

uptuonline.com

uptuonline.com

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 180223

Roll No.

**B.Tech. (Semester-II)**  
**SPL. THEORY EXAMINATION, 2014-15**  
**FUNDAMENTALS OF COMPUTER**  
**PROGRAMMING**

*Time : 2 Hours]*

*[Total Marks : 50*

**Section – A**

1. Attempt all questions. All questions carry equal marks:  
 2×5=10

(a) Convert the following:

uptuonline.com (i)  $(AD59)_{16} = ( )_{10}$

(ii)  $(11001010001001)_2 = ( )_8$

uptuonline.com

- (b) What is a low level language? Give example.  
 (c) What are bit level operators?  
 (d) What is an array? How is it different from string?  
 (e) How can an array of numbers sorted.

**Section – B**

2. Attempt any three questions. All questions carry equal marks:  $5 \times 3 = 15$
- (a) Explain the symbols used in a flow chart. Plot a flow chart to find whether a year is leap year.
- (b) What is the significance of ASCII code? Write a programme to print ASCII code of alphabets.
- (c) What is the benefit of passing arguments by reference? Write a small programme to represent this method.
- (d) What are loops in C language? Explain each of them using suitable example.
- (e) What is a Null Pointer? When does it is used?

**Section – C**

3. Attempt all questions. All questions carry equal marks.  $5 \times 5 = 25$
- (a) (i) Differentiate between software and hardware. What is a Firmware? Explain.

uptuonline.com

OR

- (ii) What is a Machine language? What are its pros and cons as compared to high level language and assembly level language?
- (b) (i) Using suitable example explain the representation of Double-precision floating point number.

OR

- (ii) What are numeric and relational operators? Explain using example.

- (c) (i) Explain the use of *Break* and *Continue* statements using suitable example.

OR

- (ii) What is meant by 'equivalence of pointers and arrays' in C?

- (d) (i) Write a recursive function to reverse the words in a string, i.e., "cat is running" becomes "running is cat".

OR

- (ii) What is the output of the code below:

```

1. #include <stdio.h>
2. struct student
3. {
4.     char *name;
5. };
6. struct student fun(void)
7. {
8.     struct student s;
9.     s.name = "alan";
10.    return s;
11. }
```

uptuonline.com