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RB-0756
Second Year B. Sc. Examination
April / May – 2010
Electronics
(IDS : Programming Methodology)

Time : 3 Hours]

[Total Marks : 35

Instructions :

(1)

<p>नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : S.Y. B.Sc.</p> <p>Name of the Subject : ELECTRONICS (IDS : PROGRAMMING METHODOLOGY)</p> <p>Subject Code No. : 0 7 5 6 Section No. (1, 2,.....) : NIL</p>	<p>Seat No. : □ □ □ □ □ □</p> <p style="text-align: center; border: 1px solid black; border-radius: 15px; padding: 10px;">Student's Signature</p>
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(2) Figures at extreme right indicate full marks.

1 Answer in brief : 5

- (1) Define an array.
- (2) State in detail, the types of constant used in C programming.
- (3) State the rules for constructing variable name in C programming.
- (4) What will be output of the following program segment ?
int i=2, j=3 k=1;
float a, b;
k=i/j*j;
l=j/i*i;
a=l/j*j;
b=j/i*i;
printf(“%d%d%of%of”, k,l,a,b);
- (5) What will be the output of the following program
main()
{
 int x=3, j=5;
 if (x==3)
 printf(“\n%d”, x);
 else;
 printf(“\n%d”, y);
}

2 (a) Draw flow chart and write a program to check whether a number entered is a Armstrong number or not and display the message accordingly on the screen. (Hint : A number is Armstrong if the sum of cube of every digit is same as the original number) 5+5

(b) Write a program to generate the following patterns on the screen

```
* * * * *
* * * *
* * *
* *
*
```

OR

2 (a) With suitable example discuss all three loop control structures in C language. 5+5

(b) What do you understand by function in C ? With suitable example discuss the recursive function.

3 (a) Write a function to reverse a string. 5+5

(b) Assume that you have a 3×3 matrix called A and another 3×3 matrix called B. Write a program to add these two matrix and call the resultant matrix as C.

OR

3 Explain the following : 5×2=10

- (1) Call by value
- (2) Call by reference
- (3) Actual parameters
- (4) Formal parameters
- (5) Structure in C

4 (a) Write a program to find the factorial value of any number entered through the keyboard. 5+5

(b) Write a program to find the result of the following series :

$$1^2 + 2^2 + 3^2 + 4^2 + \dots + n^2$$

OR

4 Write the use of the following functions : 5×2=10

- (1) strcmp ()
- (2) strcat ()
- (3) strcpy ()
- (4) strlen ()
- (5) strncpy ()