



DJ-1844

**B. C. A. (Sem. II) Examination**  
**September / October – 2007**  
**Programming Language : Paper I**

Time : 3 Hours]

[Total Marks : 70

Instructions :

नीचे दशांश देव निशा-नीवाणी विगतो उत्तरवली पर अवश्य लपनी.  
Fillup strictly the details of signs on your answer book.

Name of the Examination :  
B. C. A. (Sem. 2)

Name of the Subject :  
Programming Language - 1

Subject Code No. : 1 8 4 4 Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

1 Answer the following in brief : (any seven)

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- (a) Compare the following in terms of their functions, the following pair of statements.  
(i) break Vs continue  
(ii) while Vs for loop.
- (b) What is the use of control string in an output statement?
- (c) How can you assign hexadecimal and octal value to a variable?
- (d) Determine the value of each of the following logical expressions.  
A=5 b=10 c=-6  
(i)  $a > b \&\& a < c$   
(ii)  $a = c \parallel b > a$
- (e) When do we use the following ?  
(i) The size of operator  
(ii) The Bit Wise operator.
- (f) Differentiate between if and goto statement.
- (g) What is a null statement? Explain a typical use of it.
- (h) How can we use 'for' loop when the numbers of iterations are not known ?

- 2 (a) Explain type conversion. Also discuss the conditions in which either implicit or explicit conversion is preferred? 5
- (b) Write a program to read the age of 100 persons and count the number of persons in the age group of 20-40,50-60 and 70-80.

OR

- (b) Write a program to generate following output, in the middle of the screen

```
      1
     1 2
    1 2 3
   1 2 3 4
  1 2 3 4 5
```

- 136 (c) Explain goto statement in brief.

- 3 (a) Explain any three-string functions with their syntax. 3

OR

- (a) Explain any 3 mathematical functions with their syntax. 3
- (b) Explain the difference between 2-dimensional array of integer and character with example. 4
- (c) How is '.' (dot) operator used in nested structure? 3
- (d) Write a program to print following series. 4
- 0,1,1,2,3,5,8.....

- 4 (a) Given are 2-1 dimensional arrays A and B which are sorted in descending order. Write a program to merge them into a single sorted (ascending) array C that contains every item from arrays A and B in descending order. 7

- (b) Explain multidimensional array in 'C'. Write different ways to initialize 2-dimensional array during the declaration. 6
- (c) How can '.' Operator be used in union inside a structure ? 4

- 5 (a) Define a union hotel with room\_id, room\_type, and room\_cost. Write a program to read 10 records and print room type wise information in proper format. 6

- (b) Write a program that fills a 5\*5 matrix as follows : 7
- => Upper left triangle with +1s
- => lower right triangle with -1s
- => right to left diagonal with 0 (zeros)

OR

- (b) 5 candidates contest an election. The candidates are numbered 1 to 5 and marking the candidate number on the ballot paper does the voting. Write a program to read the ballots and count the votes casted for each candidate using an array variable 'count'. In case a number read is outside the range 1 to 5, the ballot should be considered as "spoiled ballot" and program should also count the number of "spoiled counts".