

14. Study the following program and answer the given questions. (2×1=2)

REM To print the smallest number

```
CLS
READ H
FOR X = 1 TO 5
  READ N
  IF N >= H THEN
    H = N
  END IF
NEXT X
DATA 14 , 75 , 32 , 12 , 19 , 37
PRINT H
END
```

- Will the program display the smallest number? What will be the output?
- What will be the output of the above program, if the statement **H=N** is written as **N=H**?

15. a) Write a program to check whether the supplied number is divisible by 5 or not using a **SUB** procedure. (3)
- b) Write a program that asks any number and calculates its factorial using a **FUNCTION** procedure. (3)
- c) Write a program to display all the records from a sequential data file "**records.dat**". (3)

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For model answer: [www.brushuponline.edu.np](http://www.brushuponline.edu.np)  
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## SLC Brush-Up Exam - 2011

Round: #3

Set: B

Subject: Computer Science

Full Marks: 50

Time: 1:30 Hours

Pass Marks: 20

Candidates are required to give their answer in their own words as far as practicable.

### Group 'A'

[Fundamentals - 22 marks]

- Answer the following question:** (5×2=10)
  - Explain the different modes of data transmission.
  - What is meant by e-commerce? Name any two e-commerce sites.
  - What is a password? What should be done to protect the system from unauthorized access?
  - What is computer virus? Name any two examples of antiviral software.
  - Write any two advantages and two disadvantages of multimedia technology.
- a) Perform the following Binary calculation:** (2×1=2)
  - $(101) + (11) \times (11)$
  - $(11010110) \div (1110)$**b) Perform as indicated:** (2×1=2)
  - $(10111011)_2$  into Octal
  - $(789)_{10}$  into Hexadecimal
- Select the correct answer:** (4×0.5=2)
  - Internet connection is done using a PSTN telephone line, is called ----- connection.
    - ISDN
    - Dial Up
    - Satellite
    - Cable
  - Which is the main source of multimedia system?
    - CD-ROM
    - Sound Card
    - Hard disk
    - Computer
  - Device used to connect same type of network protocol.
    - NIC
    - Bridge
    - Gateway
    - Modem
  - Connection of computer between two different countries.
    - LAN
    - MAN
    - WAN
    - CAN
- Write the full form of the following:** (4×0.5=2)
  - CVT
  - SIM
  - EMI
  - MBPS
- State True or False:** (4×0.5=2)
  - Bus topology requires more media than others topology.
  - Cyber crime can be done by guessing the password too.
  - Multimedia helps to develop creative ideas.
  - A macro virus infects application programs usually with extension .BIN, .EXE, .COM etc.

6. Give the appropriate technical terms of the following: (4×0.5=2)
- Another name of loop topology
  - The process of transferring data/file from Internet to the user's computer.
  - Software that protects computer system from computer viruses.
  - The artificial environment created by computer technology to entertain user.

**Group 'B'**

**[Database Management - 10 Marks]**

7. Answer the following question: (3×2=6)
- Define Data, information and database with example.
  - Differentiate between sorting and filtering.
  - What is primary key? Why it is important to specify?

8. Give the appropriate technical terms of the following: (4×0.5=2)
- An alternative name for the field in data sheet.
  - A piece of information about a object or individual.
  - The value automatically enters for the new record.
  - Graphical interface for data entry.

9. Match the following: (4×0.5=2)

Group A

Group B

- |                     |                       |
|---------------------|-----------------------|
| a) Data Redundancy  | (i) Error Message     |
| b) Validation Text  | (ii) Input Mask       |
| c) Field Properties | (iii) Lookup Wizard   |
| d) Table            | (iv) Validation Rule  |
|                     | (v) Limits the values |

**Group 'C'**

**[Programming - 18 Marks]**

10. a) What are relational operators? (1)  
 b) Give brief description of C language. (1)

11. Write down the function of the following statements: (2×0.5=1)  
 a) **STATIC**                      b) **RMDIR**

12. Write the output of the following program. (2)

```
CLS
A = 50: B = 70
FOR X = A TO B STEP 5
  FOR Y = B TO X STEP -5
    PRINT Y;
  NEXT Y
PRINT
NEXT X
END
```

13. Re-write the given program after correcting the bugs. (2)

```
REM to display the binary equivalent of decimal number
DECLARE FUNCTION bin (x)
CLS
INPUT "Decimal Number "; n
PRINT "Binary Equivalent "; bin(n)
END
=====
FUNCTION bin (x)
WHILE x <> 0
  r = x MOD 2
  s$ = VAL(r) + s$
  x = x \ 10
LOOP
d = STR$ (s$)
bin = d
END FUNCTION
```