

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

```

DECLARE SUB test (a, b)
CLS
x = 7: y = 5
CALL test(x, y)
PRINT x, y
END
=====
SUB test (a, b)
FOR i = a TO b STEP -1
    a = a + b
    b = b + a
NEXT i
END SUB

```

- a) If the value of **x** and **y** are exchanged then what will be the output of the program?
- b) What will be the output of the program if **CALL test(x,y)** is written below **PRINT x,y**?
15. a) Write a program to display the below output using a **SUB** procedure. (3)
- ```

123456789
1234567
12345
123
1

```
- b) Write a program that asks length and breadth of a triangle and calculates its area using a **FUNCTION** procedure. [Area of triangle =  $\frac{1}{2} b \times h$ ] (3)
- c) Write a program that asks students' name, roll and class and stores into "**class.dat**" only those records who are studying in class 10. User can supply the records as per his/her need. (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: #1

Set: A

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]

1. Answer the following question: (5×2=10)
- What do you mean by communication media? Give any two examples of guided media.
  - What is an Internet? Write any three services of Internet.
  - What is a backup? Why is backup vital to computer security system?
  - How does virus spread from one computer to another?
  - What do you mean by multimedia? Name any four media used in multimedia technology.
2. a) Perform the following Binary calculation: (2×1=2)
- $(100100) + (11011) - (11101)$
  - $101110 \div 111$
- b) Perform as indicated: (2×1=2)
- $(608)_{10}$  into Binary
  - $(765)_8$  into Hexadecimal
3. Select the correct answer: (4×0.5=2)
- Computer virus has its infection to ----- .
    - Monitor
    - Mouse
    - Keyboard
    - Hard disk
  - In which communication media do data travels in the form of light signal?
    - Telephone wire
    - Fiber optics
    - Coaxial cable
    - Twisted pair
  - Which one is the example of software used in multimedia?
    - CD-ROM
    - Sound Card
    - Sound Forge
    - All
  - Cyberspace means?
    - Computer space
    - WWW
    - Cyber Café
    - None
4. Write the full form of the following: (4×0.5=2)
- PAT
  - CDMA
  - NITC
  - VOIP
5. Match the following: (4×0.5=2)
- |                                                                                                  |                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>TCP/IP</li> <li>POP</li> <li>ARP</li> <li>SMTP</li> </ol> | <ol style="list-style-type: none"> <li>Transfer mail and attachment on the network.</li> <li>Convert the network address of a computer to MAC address.</li> <li>Transfer files between two computers.</li> <li>Addressing data, converting them into packets and routing</li> <li>Fetching mails from the mail server to a user's computer.</li> </ol> |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

6. Give the appropriate technical terms of the following: (4×0.5=2)
- A device that forwards signals between networks in network traffic.
  - A physical layout of network through which network devices are connected.
  - The moving graphic images.
  - Website used to search information on the Internet.

**Group 'B'**

**[Database Management - 10 Marks]**

7. Answer the following question: (3×2=6)

- State the major importance of managing computer database.
- Define DBA? List major roles of DBA in managing database.
- What is indexing in database?

8. Choose the correct answer [Choose all that apply]: (4×0.5=2)

- Which object can be stored in memo field?
  - Hyperlink
  - Data
  - Picture
  - Word
- What is extension of access database?
  - DBF
  - MDB
  - MBD
  - None
- The name of caption can be declared up to ----- characters.
  - 1024
  - 2024
  - 2048
  - 2005
- The frame work for storing records in database is ----- .
  - Query
  - Form
  - Report
  - Table

9. Match the following: (4×0.5=2)

Group A

Group B

- |                               |                  |
|-------------------------------|------------------|
| a) Show final information     | (i) Sort         |
| b) Data entry                 | (ii) Design view |
| c) Change the table structure | (iii) Field      |
| d) Each column in a table     | (iv) Form        |
|                               | (v) Report       |

**Group 'C'**

**[Programming - 18 Marks]**

10. a) What do you understand by User-defined function? (1)

- b) Differentiate between **int** and **float** data type in C language. (1)

11. Write down the function of the following statements: (2×0.5=1)

- NAME**
- CONST**

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

```

DECLARE SUB show (n)
CLS
FOR I = 1 TO 10
 READ n
 CALL show(n)
NEXT I
DATA 7,15,6,10,15,32,8,22,25,5
END
=====
SUB show (x)
IF x MOD 5 <> 0 THEN
 PRINT x;
END IF
END SUB

```

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

```

REM to check Armstrong or not
DECLARE FUNCTION check (n)
CLS
INPUT "Any number "; n
IF check(n) = 0 THEN
 PRINT "Armstrong"
ELSE
 PRINT "Not Armstrong"
END IF
END
=====
FUNCTION check (n)
n=a
WHILE n < 0
 r = n MOD 10
 s = s + r * 3
 n = n \ 10
WEND
IF a = s THEN
 check = 1
ELSE
 check = 0
END IF
END FUNCTION

```