

SOLVED SEE Efficiency Test: 2024

COMPUTER SCIENCE 2080

Subject: Computer Science

Time: 3 hrs Full Marks: 50

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

Group A

1. Answer the following questions. [6×1=6]

- a) List any two services of Internet.
- b) Define Cryptography.
- c) List the services of Cloud Computing.
- d) What is Online Payment?
- e) Which query is used to modify and calculate data in DBMS?
- f) List any two examples of format specifier (Conversion Character) used in C Language.

2. Give the appropriate technical terms of the following. [2×1=2]

- a) The mode of data communication in which data/information/signals are transmitted in both side simultaneously.
- b) The network security systems that monitor and control the traffic flow (data packets).

3. Write the full form for the following. [2×1=2]

- a) POP
- b) GCE

Group B

4. Answer the following questions. [9×2=18]

- a) What is Transmission Media? Mention its types with at least any two examples of each.
- b) What do you mean by Computer Security? Write any four security measures (mechanisms) of Hardware Security.
- c) Define Virtual Reality. Write its application area.
- d) What is Digital Citizenship? List any four elements (themes) of Digital Citizenship.

- e) List the types of E-Commerce. Describe any one of them.
- f) What is MS-Access? List any two features of MS-Access.
- g) Define Field Name. Write any two rules for creating the Field Name.
- h) Differentiate between Form and Report.
- i) What do you mean by Indexing? Write its importance.

5. Write the output of the following program showing necessary rough. [2]

```

DECLARE SUB SERIES ( )
CLS
CALL SERIES
END

SUB SERIES
A$="NEPAL"
B=1
FOR I=LEN(A$) TO 1 STEP-2
IF B< >3 THEN
PRINT MID$(A$, B, I)
ELSE
PRINT MID$(A$, 1, I)
END IF
B=B+1
NEXT I
END SUB

```

6. Rewrite the program after correcting the bugs. [2]

```

REM to calculate the sum of even numbers existing in the set of given numbers.
DECLARE FUNCTION evenpro(A)
FOR C=1 TO 5
read N
S=S+evenpro(A)
NEXT C
PRINT Ssum of even numbers:"; S
DATA 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
END

FUNCTION evenpro(A)
R=A MOD 2
IF R< >0 THEN
A=evenpro
ENDIF
END FUNCTION

```

7. Read the following program and answer the following questions. [2]

```
OPEN "BUSRIDER.TXT" FOR INPUT AS #1
OPEN "TEMP.TXT" FOR OUTPUT AS #2
CLS
WHILE NOT EOF (1)
INPUT #1, STUDENTNAME$, CLASS, BUSCODE, BUSSTOP$
IF UCASE$(BUSSTOP$) < > UCASE$("KATHMANDU") THEN
WRITE #2, STUDENTNAME$, CLASS, BUSCODE, BUSSTOP$
PRINT STUDENTNAME$, CLASS, BUSCODE, BUSSTOP$
END IF
WEND
CLOSE #1, #2
KILL "BUSRIDER.TXT"
NAME "TEMP.TXT" AS "BUSRIDER.TXT"
END
```

Questions:

- a) What is the main objective of the program given above?
- b) Do you get any problem in above program if "Kill" statement is removed? Give reason.

GROUP-C (Long Questions-16 Marks)

8. Calculate/Convert as per the instruction. [4×1=4]

- a) $(111011)_2 \times (1010)_2 - (10111)_2$
- b) $(11011010)_2 \div (11101)_2$
- c) $(ABC85)_{16} = (?)_2$
- d) $(986)_{10} = (?)_2$

9.

- a) Write a program in QBASIC that asks for the radius of a circle and calculates its area and circumference. Use a user-defined function to calculate the area and a sub-procedure to calculate the circumference. [4]
- b) Write a program to create a data file "EMPLOYEE.DAT" that stores employee information including name, post, salary, and department. [4]

10. Write a program in C language to input marks of five subjects and calculate the total and average marks. [4]

OR

Write a program in C language to display the multiplication table of any number input by the user.