SEE COMPUTER SCIENCE 2080 MODEL SET 5

Full Marks: 50
 Time: 2 hrs.

Candidates are required to write their answers according to the instructions given.
 Attempt all questions.

Group 'A' (10×1=10)

1. Answer the following questions in one sentence: (6×1=6)

a) Write any two popular search engines.
 b) What is social media?
 c) Which query is used to view the data stored in database?
 d) Name any two data types that can be defined in MS-ACCESS.
 e) Write down one difference between function and sub procedure.
 f) Write any two advantages of Structured programming.

2. Write appropriate technical term for the following: (2×1=2)

a) Crimes committed using electronic devices and cyber space.
 b) A program that can disinfect a file from virus.

3. Write the full form of the following: (2×1=2)

a) STP:
 b) WAP:

Group 'B' (9×2=18)

4. Answer the following questions:

a) Give two-two difference between peer-to-peer and client/server network architecture.
 b) List any two main aims of formulating cyber law in Nepal.

c) Write any two symptoms of computer virus.
d) Write any two advantages and disadvantages of e-commerce.
e) List any two-two advantages and disadvantages of cloud computing.
f) What is table? Write any two importance of it.
g) What is data redundancy? How can it be reduced in database?
h) While designing table structure which data types are suitable to store information about teacher's name, address, salary, and date of birth.
i) Differentiate between select query and action query.

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5. Write the output of the given program: Show with dry run in table. (2)

```
DECLARE SUB SHOW(A)
CLS
N=87
CALL SHOW(N)
END

SUB SHOW(A)
DO
  B=A MOD 6+3
  IF B MOD 4=0 THEN GOTO AA
  PRINT B;
AA:
  A=A-10
LOOP WHILE A>=50
END SUB
```

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6. Re-Write the given program after correcting the bug: (2)

```
REM to create a new file
CLS
OPEN "ABC.DAT" FOR INPUT AS #1
DO
  INPUT "Enter Name, Roll No & Total."; N$, R, T
  INPUT #1, N$, R, T
  INPUT "Supply more records Y/N"; C$
LOOP WHILE UCASE(Y$)="Y"
CLOSE #1
```

```
END
```

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

```
DECLARE FUNCTION prod (A,B)
CLS
INPUT "Enter first number"; A
INPUT "Enter second number"; B
PRINT "The product of the two number="; prod(A,B)
END

FUNCTION prod (A,B)
  P=A*B
  prod=P
END FUNCTION
```

a) List all the numerical variables used in the program above.

b) List the local variables used in the program above.

8. Convert/Calculate as per the instruction: (4×1=4)

a) $(ABC)_{16} = (?)_8$

b) $(52)_{10} = (?)_2$

c) $(1010)_2 + (110)_2 - (1111)_2 = (?)_2$

d) $(1101101)_2 \div (110)_2$

9.

a) Write a program in QBASIC that asks radius of a circle and calculate its Total Surface Area and Volume of sphere. Create a user-defined function to calculate volume of sphere and SUB procedure to calculate Total Surface Area. [TSA = $4\pi r^2$, Volume = $\frac{4}{3}\pi r^3$] (4)

b) A sequential data file called "Record.txt" has stored data under the field heading Roll No., Name, Gender, English, Nepali, Maths and Computer. Write a program to display all the information of those students whose gender is "F" and obtained marks in computer is more than 90. (4)

10. Write C program to find average number of any two numbers. (4)

OR

Write a program in C language to display first 15 even numbers. (4)