

PABSON SEE PRE-BOARD EXAMINATION-2081

Subject: Opt. II Computer Science

Class: 10

Group A

1. Answer the following questions in one sentence:

- a) Write the different architecture of computer network.
- b) What is Cyber bullying?
- c) Write any two services provided by Internet.
- d) Which query is used to make change the data present in the database.
- e) What is Primary Key?
- f) Write any two types of operators used in C language.

2. Write appropriate technical term for the following:

- a) Law that governs the legal issues of cyberspace.
- b) The website that search documents for specified keywords in Internet.

3. Write the full form of the following:

- a) POP
- b) ISP

Group B

4. Answer the following questions:

- a) Differentiate between LAN and MAN.
- b) What is network topology? Write about star topology with suitable diagram.
- c) Write any four opportunities and threats in social media.
- d) What is Online Payment? Write the different forms of e-payment in Nepal.
- e) What is cloud computing? What are the services provided by cloud computing.
- f) Define Data and Information.
- g) What is MS-Access? Write the features of MS-Access.
- h) Define action query.
- i) What is table? Write the basic components of table.

5. Write down the output of the given program. Show with dry run in table.

```
DECLARE SUB TEST(A$)
CLS
A$="PABSON"
CALL TEST(A$)
END
```

```
SUB TEST(A$)
FOR I=1 TO LEN(A$)
B$ = MID$(A$, I, 1)
C$=C$+B$
NEXT I
PRINT C$
END SUB
```

6. Rewrite the given program after correcting the bugs:

```
REM to display the data from sequential data file "marks.dat" having marks in english more than
35
CLS
OPEN "marks.dat" FOR OUTPUT AS#1
WHILE NOT EOF(2)
INPUT #1, N$, ENG, NEP, SCI
ENG+NEP+SCI = TOT
IF TOT >35 THEN PRINT N$, ENG, NEP, SCI
NEXT
CLOSE #1
```

END

7. Study the following program and answer the given questions:

```
DECLARE FUNCTION GRADE (A)
CLS
INPUT "ENTER A NUMBER"; B
C=GRADE(B)
PRINT C
END
```

```
FUNCTION GRADE(X)
WHILE X < > 0
R = X MOD 10
Z = Z + R
X = INT(X/10)
WEND
GRADE=Z
END FUNCTION
```

Questions:

- a) How many parameters are used in the above program?
- b) List the different library functions used in the program.

Group C

8. Convert/calculate as per the instruction:

- a) $(111)_{10}$ into Binary
- b) $(212)_8$ into Hexadecimal
- c) $(11001)_2 + (10101)_2$
- d) $(100101)_2 \div (1100)_2$

9. Answer the following questions:

- a) Write a program in QBASIC that ask to enter three different numbers then find out Product and Average. Create a user defined function PROD() to calculate product and sub procedure AVG() to calculate average.

b) A sequential data file called "data.dat" has stored data under the field heading item name, quantity and rate. Write a program to display all the records with total.

10. Write a program in C language to ask to enter a number then find out whether it is even or odd.

OR

Write a C program to display the series 1, 4, 9... up to 10th term.