

PABSON Kathmandu MID TERMINAL EXAMINATION-2081

2081-06-18

Subject: Opt. II Computer Science Full Marks: 50

Class: 10 Time: 2 hrs.

Group 'A' (10 Marks)

1. Answer the following questions in one sentence. [6×1=6]

- a) What is LAN?
- b) Give any two examples of AI.
- c) What is data redundancy?
- d) What is the purpose of a table?
- e) What is global variable in QBASIC?
- f) What is looping?

2. Write appropriate technical term for the following. [2×1=2]

- a) Digital marks created while using internet
- b) Making duplicate copy of file for security purpose.

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

- a) GIF
- b) NIC

Group 'B' (24 Marks)

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

- a) Give any two advantages of e-mail over traditional mail.
- b) Write any two advantages and disadvantages of social media.
- c) What do you mean by software security? Write any two methods to protect the computer software.
- d) Write any two advantages and disadvantages of online payment.
- e) Define virtual reality. Write any two areas where VR is used.
- f) What is database? Give any two examples of it.
- g) What is validation rule and validation text?

- h) What is a query? What is the purpose of query in MS-Access?
i) What is report in MS-Access? Why it is important?

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

```
DECLARE SUB Show (XY$)
CLS
XY$ = "HTUOMENXSA"
CALL Show(XY$)
END
SUB Show(XY$)
A = 47
FOR I = 1 TO 5
N = A MOD 7
PRINT MID$(XY$, N, 1)
A = A - 1
NEXT I
END SUB
```

6. Re-write the given program after correcting the bugs. [2]

```
REM to display greatest number
DECLARE GREAT FUNCTION (a, b, c)
ACCEPT a, b, c
PRINT GREAT (x, y, z)
END
FUNCTION GREAT (a, b, c)
IF a>b or a>c THEN
G=a
ELSEIF b>a AND b>c THEN
G=b
ELSE
G=c
NEXT
G=GREAT
END SUB
```

7. Study the following program and answer the given questions. [2×1=2]

```
REM "to count vowels"
DECLARE FUNCTION count (A$)
INPUT "Enter a word"; A$
End
FUNCTION count (A$)
B=LEN (A$)
```

```

C$=UCASE$(A$)
FOR I=1 to B
E$=MID$(C$, I, 1)
IF E$="A" or E$="E" or E$="I" or E$="O" or E$="U" THEN
C=C+1
END IF
NEXT I
Count=C
END FUNCTION

```

Questions:

- List the string library functions used in the above program.
- Write down the missing statements in the main module to execute the program.

Group C (16 Marks)

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

- $(231)_8 = (?)_{10}$
- $(1D3)_{16} = (?)_2$
- $(111001)_2 - (11)_2 + (111001)_2$
- $(101101)_2 \div (110)_2$

9. Answer the following. [2×4=8]

- WAP that asks principal, time and rate of interest and calculate simple interest using SUB.... END SUB and amount using FUNCTION.... END FUNCTION. [Hint: $SI = PTR/100$, $Amount = P + SI$] [4]
- Write a program to check whether a string is palindrome or not using SUB...END SUB [4]

10.

Write a program to ask number and check it is exactly divisible by 4 and 6 using SUB.....END SUB.

OR

Write a program in QBASIC to display sum of first 10 natural numbers using FUNCTION.... END FUNCTION.