

# **PABSON KASKI SEE Computer Science Preparatory Examination 2081**

**Time: 2:00 Hours | Full Marks: 50**

## **GROUP 'A'**

### **1. Answer the following questions:**

- a. What is bandwidth?
- b. What is online payment?
- c. Write any two methods of creating tables in MS-Access.
- d. While designing table structure, which data types are suitable to store information about a student's name and class?
- e. List the types of procedures used in QBasic Programming.
- f. How many keywords are used in C language?

### **2. Write appropriate technical term for the following:**

- a. The network security systems that monitor and controls the traffic flow between the internet and private network.
- b. System of interrelated computing devices with unique identifiers that transfer data over a network without human intervention.

### **3. Write the full form of the following:**

- a. HTTP
- b. CCTV

## **GROUP 'B'**

### **4. Answer the following questions:**

- a. Differentiate between Guided and Unguided Media.
- b. Mention any two threats and two opportunities of using social media.
- c. What is hardware security? List any two software security measures.
- d. What is Cloud computing? Write any two advantages of cloud computing.
- e. Define M-Commerce. List the different types of e-commerce?
- f. What is database? Write any two examples of database.
- g. What is query? Write down two importance of query.
- h. What is primary key? Write its importance.
- i. Define sorting and filtering.

**5. Write down the output of the given program and show them in dry run table:**

```
DECLARE SUB SERIES ( )  
CLS  
CALL SERIES  
END
```

```
SUB SERIES ( )  
X = 1  
Y = 1  
FOR P = 1 TO 10  
PRINT X;  
X = X + Y  
Y = Y + 1  
NEXT P  
END SUB
```

**6. Re-write the given program after correcting the bugs:**

```
REM TO CHECK ODD OR EVEN NUMBERS.  
DECLARE FUNCTION TEST$(N)  
CLS INPUT "ENTER ANY NUMBER"; N$  
PRINT "THE NUMBER IS "; TEST$  
END
```

```
FUNCTION TEST$(N)  
R = R MOD 2
```

```

IF R = 0 THEN
A$= "EVEN"
ELSE
A$ = "ODD"
END IF
A$ = TEST$
END FUNCTION

```

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

```

DECLARE FUNCTION SUM (N)
CLS
INPUT "ENTER MULTIDIGIT NUMBER"; A
SU = SUM(A)
PRINT "SUM OF DIGITS"; SU
END

```

```

FUNCTION SUM(N)
S = 0
WHILE N < > 0
R = N MOD 10
S = S + R
N = N \ 10
WEND
SUM = S
END FUNCTION

```

#### Questions:

- What is the name of the function used in the above program?
- List the formal and real parameters used in the above program.

## GROUP 'C'

### 8. Convert/Calculate as per the instruction:

- $(101101)_2$  into decimal
- $(BAD)_{16} = (?)_8$
- $(1101)_2 \times (101)_2$

d.  $(10100)_2 \div (11)_2$

**9. Answer the following questions:**

- a. Write a program in QBasic to input three different numbers and display smallest and greatest number. Create a user define function to display smallest and sub program to display greatest number.
- b. A sequential data file "student.txt" has stored data under the field heading Roll No., Name, Gender, marks of English, Nepali and Computer. Write a program to display all the information of those student whose gender is 'F' and obtained marks in computer is more than 90.

**10. Write a C language that asks a number and check whether it is odd or even.**

**OR**

**Write a C language to display the following series: 1, 3, 5, 7.....up to 10th terms.**