Function Program

1. To calculate the sum of two entered numbers.

```
DECLARE FUNCTION SUM ( A, B )
CLS
INPUT " ENTER THE FIRST VALUE"; A
INPUT "ENTER THE SECOND VALUE";B
PRINT" THE SUM OF TWO VALUES"; SUM (A,B)
END
FUNCTION SUM (A,B)
SUM= A+B
END FUNCTION
```

2. To find the average of the two entered numbers.

```
DECLARE FUNCTION AVG ( X, Y )
CLS
INPUT " ENTER THE FIRST VALUE"; X
INPUT "ENTER THE SECOND VALUE";Y
PRINT" THE AVERAGE OF TWO VALUES"; AVG (X,Y)
END
FUNCTION AVG (X,Y)
AVG= (X+Y)/2
END FUNCTION
```

3. Program to find the circumference of a circle.

```
DECLARE FUNCTION CIRC(R)
CLS
INPUT  "ENTER THE RADIUS OF THE CIRCLE"; R
PRINT " THE CIRCUMFERENCE OF THE CIRCLE"; CIRC(R)
END
 FUNCTION CIRC(R)
 CIRC = 2*3.14*R
 END FUNCTION
```

4. Program to find the area of a rectangle.

```
DECLARE FUNCTION RECT ( L,B)
CLS
INPUT "LENGTH OF RECTANGLE"; L
INPUT BREADTH OF RECTANGLE";B
```

```
PRINT” THE AREA OF RECTANGLE”; RECT(L,B)
END
FUNCTION AREA (L,B)
AREA = L*B
END FUNCTION
```

5. Program to find the volume of a cylinder.

```
DECALRE FUNCTION VOL (R,H)
CLS
INPUT “INPUT RADIUS”;R
INPUT “INPUT HEIGHT”;H
PRINT” THE VOLUME OF CYLINDER”; VOL(R,H)
END
FUNCTION VOL (R,H)
VOL=3.14*R^2*H
END FUNCTION
```

6. To check if the entered number is prime or composite.

```
DECLARE FUNCTION AB (N)
 CLS
 INPUT "ENTER A NUMBER"; N
 IF AB(N) > 0 THEN
 PRINT " IT IS COMPOSITE"
 ELSE
 PRINT "IT IS PRIME"
 END IF
 END
 FUNCTION AB (N)
 FOR I = 2 TO N / 2
 IF N MOD I = 0 THEN
 C = C + 2
 END IF
 NEXT I
 AB = C
 END FUNCTION
```

7. To check entered letter is small or capital.

```
DECLARE FUNCTION UC$ (A$)
 CLS
 INPUT “Enter a letter”; A$
```

```
PRINT UC$(A$)
END
FUNCTION UC$ (A$)
CH$ = UCASE$(A$)
IF A$ = CH$ THEN
UC$ = “It is capital letter”
ELSE
UC$ = “It is small letter”
END IF
END FUNCTION
```

8. To check if the entered number is palindrome or not.

```
DECLARE FUNCTION A(N)CLS
INPUT “ENTER A NUMBER”; N
Print A(N)
END
FUNCTION A(N)
S = N
WHILE N <> 0
B = N MOD 10
R = R * 10 + B
N = FIX(N / 10)
WEND
IF S = R THEN
PRINT “IT IS PALINDROME”
ELSE
PRINT “IT IS NOT PALINDROME”
END IF
END FUNCTION
```

9. To reverse the entered number.

```
DECLARE FUNCTION A(N)
CLS
INPUT “ENTER A NUMBER”; N
PRINT A(N)
END
FUNCTION A(N)
WHILE N <> 0
B = N MOD 10
R = R * 10 + B
N = FIX(N / 10)
WEND
A=R
END FUNCTION
```

10. To convert decimal number into hexadecimal number.

```
DECLARE FUNCTION Z$ (N)
 CLS
 INPUT “ENTER A DECIMAL VALUE”; N
 PRINT “HEXADECIMAL VALUE IS “; Z$(N)
 END
 FUNCTION Z$ (N)
 WHILE N <> 0
 K = N MOD 16
 IF K = 10 THEN
 B$ = “A”
 ELSEIF K = 11 THEN
 B$ = “B”
 ELSEIF K = 12 THEN
 B$ = “C”
 ELSEIF K = 13 THEN
 B$ = “D”
 ELSEIF K = 14 THEN
 B$ = “E”
 ELSEIF K = 15 THEN
 B$ = “F”
 ELSE
 B$ = STR$(K)
 END IF
 H$ = B$ + H$
 N = FIX(N / 16)
 WEND
 Z$ = H$
 END FUNCTION
```

11. To convert decimal number into octal number.

```
DECLARE FUNCTION O$(N)
 CLS
 INPUT “ENTER A NUMBER”; N
 PRINT “QUAINARY EQUIVALENT IS”; O$(N)
 END
 FUNCTION O$(N)
 WHILE N <> 0
 A = N MOD 8
 B$ = STR$(A)
 N = FIX(N /
C$ = B$ + C$
 WEND
 O$=C$
 END FUNCTION
```

12. To reverse an entered string.

```
DECLARE FUNCTION A$ (S$)
 CLS
 INPUT “ENTER A STRING”; S$
 PRINT A$(S$)
 END
 FUNCTION A$ (S$)
 FOR I = LEN(S$) TO 1 STEP -1
 M$ = MID$(S$, I, 1)
 REV$ = REV$ + M$
 NEXT I
 A$ = REV$
 END FUNCTION
```

13. To convert hexadecimal number into decimal number.

```
 DECLARE FUNCTION Z(B$)
 CLS
 INPUT “ENTER HEXADECIMAL VALUE”;B$
 PRINT “DECIMAL VALUE IS”;Z(B$)
 END
 FUNCTION Z(B$)
 FOR I=LEN(B$) TO 1 STEP -1
 A$=MID$(B$,I,1)
 C=VAL(A$)
 IF A$=”A” THEN C=10
 IF A$=”B” THEN C=11
 IF A$=”C” THEN C=12
 IF A$=”D” THEN C=13
 IF A$=”E” THEN C=14
 IF A$=”F” THEN C=15
 H=H+C*16^P
 P=P+1
 NEXT I
 Z=H
 END FUNCTION
```

14. To convert decimal number into binary number.

```
DECLARE FUNCTION A$ (N)
 CLS
 INPUT “ENTER A NUMBER”; N
 PRINT “BINARY EQUIVALENT IS”; A$(N)
 END
FUNCTION A$ (N)
 WHILE N <> 0
 E = N MOD 2
 B$ = STR$(E)
```

```
N = FIX(N / 2)
C$ = B$ + C$
WEND
A$=C$
END FUNCTION
```

15. To convert binary number into decimal number.

```
DECLARE FUNCTION Z (B$)
CLS
INPUT “ENTER A BINARY NUMBER”; B$
PRINT “DECIMAL VALUE IS “; Z(B$)
END
FUNCTION Z (B$)
FOR I = LEN(B$) TO 1 STEP -1
A$ = MID$(B$, I, 1)
C = VAL(A$)
M = M + C * 2 ^ P
P = P + 1
NEXT I
Z = M
END FUNCTION
```

16. To convert octal number into decimal number.

```
DECLARE FUNCTION Z (B$)
CLS
INPUT “ENTER A OCTAL VALUE”; B$
PRINT “DECIMAL VALUE IS”; Z(B$)
END
FUNCTION Z (B$)
FOR I = LEN(B$) TO 1 STEP -1
A$ = MID$(B$, I, 1)
C = VAL(A$)
D = D + C * 8 ^ P
P = P + 1
NEXT I
Z = D
END FUNCTION
```

17. To find the product of the digits of entered number.

```
DECLARE FUNCTION C(N)
CLS
INPUT “ENTER A NUMBER”;N
PRINT “PRODUCT OF DIGITS IS”;C(N)
END
FUNCTION C(N)
R = 1
```

```
WHILE N<>0
A = N MOD 10
R = R * A
N = FIX ( N / 10 )
WEND
C = R
END FUNCTION
```

18. To find the sum of the numbers.

```
DECLARE FUNCTION C(N)
CLS
INPUT “ENTER A NUMBER”;N
PRINT “SUM OF DIGITS IS”;C(N)
END
FUNCTION C(N)
WHILE N<>0
A = N MOD 10
R = R + A
N = FIX ( N / 10 )
WEND
C = R
END FUNCTION
```