

BASIC PROGRAMS
HALF YEARLY
2019 - 2020

MID TERM SYLLABUS:

- 1. Data Types (Variables & Constants)**
 - 2. Rules for writing programs**
 - 3. Rules for naming variables and constants**
 - 4. LIST, RUN CLS, SYSTEM, NEW, REM, LET, PRINT, END**
 - 5. Arithmetical operators (+ - * / () ^)**
 - 6. Evaluating expressions**
 - 7. Simple BASIC programs**
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1. WAP to display the names of four different planets in separate lines.

```
10 CLS
20 PRINT "Earth"
30 PRINT "Jupiter"
40 PRINT "Mars"
50 PRINT "Mercury"
60 END
```

2. WAP to display the names of the five different vegetables in separate lines.

```
10 CLS
20 PRINT "Potato"
30 PRINT "Onion"
40 PRINT "Carrot"
50 PRINT "Brinjal"
60 PRINT "Cabbage"
70 END
```

3. WAP to print the following pattern:

```
@@@@@@
 @@@@@
  @@@@@
   @@@@
    @@@
     @@
      @
```

```
10 CLS
20 PRINT "@@@@@@@"
30 PRINT " @@@@@@"
40 PRINT " @@@@@@"
50 PRINT " @@@@@"
60 PRINT " @@@@"
70 PRINT " @@"
80 PRINT " @"
90 END
```

4. WAP to print the following pattern:

```
#####  
#####  
#####  
####  
###  
##  
#
```

```
10 CLS  
20 PRINT "#####"  
30 PRINT "#####"  
40 PRINT "#####"  
50 PRINT "####"  
60 PRINT "###"  
70 PRINT "##"  
80 PRINT "#"  
90 END
```

5. WAP to print the following pattern:-

```
@#@#@#  
#@#@#  
@#@#  
#@#@  
@#@  
#@  
@
```

```
10 CLS  
20 PRINT "@#@#@#"  
30 PRINT "#@#@#"  
40 PRINT "@#@#"  
50 PRINT "#@#@"  
60 PRINT "@#@"  
70 PRINT "#@"  
80 PRINT "@"  
90 END
```

6. WAP to print the following pattern:-

```
C  
 O  
M  
 P  
U  
 T  
E  
R
```

```

10 CLS
20 PRINT "C"
30 PRINT " O"
40 PRINT "M"
50 PRINT " P"
60 PRINT "U"
70 PRINT " T"
80 PRINT "E"
90 PRINT " R"
100 END

```

7. WAP to print the following pattern:-

```

CO
  MP
    UT
      ER
        CO
          MP
            UT
              ER

```

```

10 CLS
20 PRINT "CO"
30 PRINT "  MP"
40 PRINT "    UT"
50 PRINT "      ER"
60 PRINT "        CO"
70 PRINT "          MP"
80 PRINT "            UT"
90 PRINT "              ER"
100 END

```

8. WAP to display the pattern given below:-

```

**
***
****
*****
*****
****
***
**

```

```

10 CLS
20 PRINT "***"
30 PRINT "****"
40 PRINT "*****"
50 PRINT "*****"
60 PRINT "****"
70 PRINT "***"
80 PRINT "**"
90 END

```

9. WAP to display the following on the screen:

```
C
CO
COM
COMP
COMPU
COMPUT
COMPUTE
COMPUTER
```

```
10 CLS
20 PRINT "C"
30 PRINT "CO"
40 PRINT "COM"
50 PRINT "COMP"
60 PRINT "COMPU"
70 PRINT "COMPUT"
80 PRINT "COMPUTE"
90 PRINT "COMPUTER"
100 END
```

10. WAP to assign 1500 as cost price to a variable CP and 1700 as selling price to another variable SP. Now find profit and print with proper message. [Profit = SP - CP]

```
10 CLS
20 LET CP = 1500
30 LET SP = 1700
40 LET P = SP - CP
50 PRINT "The profit is "; P
60 END
```

10. WAP to assign 1500 as cost price to a variable CP and 1700 as selling price to another variable SP. Now find profit and print with proper message. [Profit = SP - CP]

```
10 CLS
20 LET CP = 1500
30 LET SP = 1700
40 LET P = SP - CP
50 PRINT "The profit is "; P
60 END
```

12. WAP to store your name, class, roll number and name of school and print them in separate lines.

```
10 CLS
20 LET N$ = "ABC"
30 LET C = 5
40 LET R = 17
50 LET S$ = "XYZ"
60 PRINT "Name "; N$
70 PRINT "Class "; C
80 PRINT "Roll Number "; R
90 PRINT "Name of school "; S$
100 END
```

13. The length of a rectangular field is 400 and its breadth is 200. WAP in BASIC to calculate area and perimeter. [Area = Length × Breadth, Perimeter = 2 × (Length + Breadth)]

```
10 CLS
20 LET L = 400
30 LET B = 200
40 LET A = L * B
50 LET P = 2 * (L + B)
60 PRINT "Area "; A
70 PRINT "Perimeter "; P
80 END
```

14. WAP to store the words "I", "LOVE" and "COMPUTERS" in three different variables, and print the words in the following format given below:

```
I
LOVE
COMPUTERS
10 CLS
20 LET A$ = "I"
30 LET B$ = "LOVE"
40 LET C$ = "COMPUTERS"
50 PRINT A$
60 PRINT B$
70 PRINT C$
80 END
```

15. WAP to find and display the area of a class room whose length is 15 and breadth is 12. [Area = Length × Breadth]

```
10 CLS
20 LET L = 15
30 LET B = 12
40 LET A = L * B
50 PRINT "Area = "; A
60 END
```

16. If two angles of a triangle are 50 and 70. WAP to display the third angle. [Third Angle = 180 - (Sum of two angles)]

```
10 CLS
20 LET A = 50
30 LET B = 70
40 LET C = 180 - (A + B)
50 PRINT "Third Angle = "; C
60 END
```

17. The sum of two numbers is 8905. If one of the numbers is 7050. WAP to find the other number.

```
10 CLS
20 LET A = 8905
30 LET B = 7050
40 LET C = A - B
50 PRINT "The other number is "; C
60 END
```

18. The population of a town was 437280 in 2012 and in 2015 it became 456079. WAP to find the increase in population.

```
10 CLS
20 LET A = 456079
30 LET B = 437280
40 LET C = A - B
50 PRINT "Population increased by "; C
60 END
```

19. WAP to convert 7658 m into km. [1 km = 1000 m]

```
10 CLS
20 LET M = 7658
30 LET KM = M / 1000
40 PRINT "Distance in km = "; KM
50 END
```

20. WAP to assign 540 in a variable. Display and find 10% of 540.

```
10 CLS
20 LET A = 540
30 LET B = (A * 10) / 100
40 PRINT "10 % of 540 = "; B
50 END
```

21. WAP to assign marks of three subjects and display the sum and average.

```
10 CLS
20 LET E = 45
30 LET M = 50
40 LET H = 58
50 LET S = E + M + H
60 LET A = S / 3
70 PRINT "Sum = "; S
80 PRINT "Average = "; A
90 END
```

22. WAP to assign two numbers and display their sum and product.

```
10 CLS
20 LET A = 7
30 LET B = 5
40 LET S = A + B
50 LET P = A * B
60 PRINT "Sum = "; S
70 PRINT "Product = "; P
80 END
```

23. WAP to assign principal, time and rate. Display the simple interest. [SI = (P * T * R) / 100]

```
10 CLS
20 LET P = 1000
30 LET T = 2
40 LET R = 5
50 LET SI = (P * T * R) / 100
60 PRINT "The Simple Interest is "; SI
70 END
```

24. WAP to find the area of a tennis table whose length is 7 ft and width is 5 ft.

[AREA = LENGTH × WIDTH]

```
10 CLS
20 LET L = 7
30 LET W = 5
40 LET A = L * W
50 PRINT "Area = "; A
60 END
```

25. WAP to find each side of a square when the perimeter of the square is 308 m. [SIDE = PERIMETER / 4]

```
10 CLS
20 LET P = 308
30 LET S = P / 4
40 PRINT "Side = "; S
50 END
```

26. If a bus carries 55 people. WAP to display how many people will be carried in 40 such buses.

```
10 CLS
20 LET P = 55
30 LET B = 40
40 LET NP = P * B
50 PRINT "Total number of people "; NP
60 END
```

27. WAP to display the quotient if the dividend is 4265 and the divisor is 5.

```
10 CLS
20 LET D = 4265
30 LET DI = 5
40 LET Q = D / DI
50 PRINT "Quotient = "; Q
60 END
```

28. WAP to print the total and average of 5 given numbers. The numbers are 10, 20, 30, 40 and 50.

```
10 CLS
20 LET A = 10
30 LET B = 20
40 LET C = 30
50 LET D = 40
60 LET E = 50
70 LET T = A + B + C + D + E
80 LET AVG = T / 5
90 PRINT "Total = "; T
100 PRINT "Average = "; AVG
110 END
```

29. WAP to store your name, age and address in suitable variables and print the same in the format given below:

NAME: _____

AGE: _____

ADDRESS: _____

10 CLS

20 LET N\$ = "ABC"

30 LET A = 11

40 LET ADD\$ = "XYZ"

50 PRINT "NAME: "; N\$

60 PRINT "AGE: "; A

70 PRINT "ADDRESS: "; ADD\$

80 END

30. If the product of two numbers is 162 and their HCF is 3, WAP to calculate and print the LCM of the two numbers. [LCM = Product of two numbers / HCF]

10 CLS

20 LET P = 162

30 LET HCF = 3

40 LET LCM = P / HCF

50 PRINT "LCM = "; LCM

60 END
