

**COMPUTER APPLICATION**  
**CLASS 6**  
**BASIC PROGRAMS**  
**2019 – 2020**

**MID TERM SYLLABUS:**

**LET, PRINT, INPUT**

**PRINT with comma (,) and semicolon (;), LOCATE and TAB**

**IF – THEN, IF – THEN – ELSE (Without AND/OR)**

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**1. Write a program to accept the marks of a student in Math, Science and Computers, and find the total and average marks. Display the result.**

```
10 INPUT "Enter marks in Math" ;M
20 INPUT "Enter marks in Science"; S
30 INPUT "Enter marks in Computers"; C
40 LET T = M + S + C
50 LET AVG = T / 3
60 PRINT "Total marks: "; T
70 PRINT "Average marks: "; AVG
80 END
```

**2. Write a program to accept the length and breadth of a rectangular field and calculate and display its area and perimeter.**

**Area =  $L \times B$**

**Perimeter =  $2(L + B)$**

```
10 INPUT "Enter the length"; L
20 INPUT "Enter the breadth"; B
30 LET A = L * B
40 LET P = 2*(L + B)
50 PRINT "Area is "; A
60 PRINT "Perimeter is "; P
70 END
```

**3. Write a program to accept the radius of a circular field and calculate its area and circumference. Display the result.**

**PI = 22/7**

**Area =  $PI \times R^2$**

**Circumference =  $2 \times PI \times R$**

```
10 INPUT "Enter the radius"; R
20 LET PI=22/7
30 LET A = PI * R^2
40 LET C = 2 * PI * R
50 PRINT "Area is "; A
60 PRINT "Circumference is "; C
70 END
```

**4. Write a program to input the distance travelled in km by a train and time taken by it in hr. Calculate and display the average speed of that train.**

**Average Speed = Distance / Time**

```
10 INPUT "Distance travelled"; D
20 INPUT "Time taken"; T
30 LET S = D / T
40 PRINT "Average Speed: "; S
50 END
```

**5. Write a program to input the amount of money in rupees and convert and display it in US-Dollars, and also in Euro.**

**1 US Dollar = Rs. 69.33**

**1 Euro = Rs. 77.68**

```
10 INPUT "Enter the amount in rupees"; R
20 LET D = R / 69.33
30 PRINT D; " Dollars"
40 LET E = R / 77.68
50 PRINT E;" Euros"
60 END
```

**6. A man goes to a shop and buys 7 packets of pencils, 23 notebooks, 55 erasers, and 62 sharpeners. Write a program in BASIC to find and display the total bill if one packet pencil costs Rs. 80, one notebook costs Rs. 35, one eraser costs Rs. 5 and one sharpener costs Rs. 4.**

```
10 LET PP = 7 * 80
20 LET NP = 23 * 35
30 LET EP = 5 * 55
40 LET SP = 62 * 4
50 LET TP = PP + NP + EP + SP
60 PRINT "Total price is Rs."; TP
70 END
```

**7. A man buys a laptop worth Rs. 46,499 and later sold it for Rs. 21,390. Write a program to calculate and display the loss percentage.**

**Loss % = Loss/CP × 100**

```
10 LET CP = 46499
20 LET SP = 21390
30 LET LOSS = CP - SP
40 LET LP = LOSS / CP * 100
50 PRINT "Loss Percentage="; LP
60 END
```

**8. Write a program to accept the values of U, A, and T, and calculate and display the value of S, when  $S=UT+\frac{1}{2}AT^2$**

```
10 INPUT "Value of U"; U
20 INPUT "Value of A"; A
30 INPUT "Value of T"; T
40 LET S = U * T + 1 / 2 * A * T ^ 2
50 PRINT "Value of S = "; S
60 END
```

**9. Write a program to accept the Principal, Rate and Time, and calculate the Simple Interest and the Amount.**

```
10 INPUT "Principal"; P
20 INPUT "Rate"; R
30 INPUT "Time"; T
40 LET SI = P * R * T / 100
50 LET A = SI + P
60 PRINT "Simple Interest=Rs."; SI
70 PRINT "Amount=Rs."; A
80 END
```

**10. Write a program to input the height, width and length of a cubical room and calculate and display its volume.**

**Volume = Length × Width × Height**

```
10 INPUT "Length"; L
20 INPUT "Width"; W
30 INPUT "Height"; H
40 LET V = L * W * H
50 PRINT "Volume="; V
60 END
```

**11. A person earns Rs.55000 monthly. He spends 10% of his salary on House Rent, 12% on Food, and 5% on Entertainment. Write a program to calculate and display his/her savings.**

```
10 LET SAL = 55000
20 LET HR = 10 / 100 * SAL
30 LET FOOD = 12 / 100 * SAL
40 LET ENT = 5 / 100 * SAL
50 LET TOTAL = HR + FOOD + ENT
60 LET SAVING = SAL - TOTAL
70 PRINT "Savings = "; SAVING
80 END
```

**12. WAP to accept the altitude and base of a right-angled triangle, and calculate and display its area using the formula:**

**Area= A × B / 2.**

```
10 INPUT "Enter the altitude" ;A
20 INPUT "Enter the base"; B
30 LET AREA = A * B / 2
40 PRINT "Area of the right-angled triangle = "; AREA
50 END
```

**13. Write a program to display the following using TAB, starting with the 12<sup>th</sup> column:**

```
B
 O
  O
   K
```

```
10 CLS
20 PRINT TAB(12);"B"
30 PRINT TAB(13);"O"
40 PRINT TAB(14);"O"
50 PRINT TAB(15);"K"
60 END
```

**14. Accept the name, address and hobby of the user, and print it in the center of the screen.**

```
10 INPUT "Name"; N$
20 INPUT "Hobby"; H$
30 INPUT "Address"; A$
40 CLS
50 LOCATE 12, 40:PRINT "Name: ";N$
60 LOCATE 13, 40:PRINT "Hobby: ";H$
70 LOCATE 14, 40:PRINT "Address: ";A$
80 END
```

**15. Write a program to accept a number from the user and print its double, triple, square and cube in different screen zones.**

```
10 INPUT "Number";N
20 LET D = N * 2
30 LET T = N * 3
40 LET S = N ^ 2
50 LET C = N ^ 3
60 PRINT D, T, S, C
70 END
```

**16. Write a program to display '\$' sign on the four corners of the screen.**

```
10 CLS
20 LOCATE 1, 1: PRINT "$"
30 LOCATE 1, 80: PRINT "$"
40 LOCATE 24, 1: PRINT "$"
50 LOCATE 24, 80: PRINT "$"
60 END
```

**17. Write a program to display the following pattern using TAB, starting with the 5<sup>th</sup> column:**

```
*
*
*
*
*
*

10 CLS
20 PRINT TAB(5);""""
30 PRINT TAB(6);""""
40 PRINT TAB(7);""""
50 PRINT TAB(8);""""
60 PRINT TAB(7);""""
70 PRINT TAB(6);""""
80 PRINT TAB(5);""""
90 END
```

**18. Write a program to assign/store the title, author, and price of any book, and display them in the following position on the screen:**

**Title (2<sup>nd</sup> row and 7<sup>th</sup> column)**  
**Author (4<sup>th</sup> row and 3<sup>rd</sup> column)**  
**Price (6<sup>th</sup> row and 4<sup>th</sup> column)**

```

10 CLS
20 LET T$ = "Illustrating BASIC"
30 LET A$ = "Donald Alcock"
40 LET P=134
50 CLS
60 LOCATE 2, 7:PRINT T$
70 LOCATE 4, 3:PRINT A$
80 LOCATE 6, 4:PRINT P
90 END

```

**19. WAP in BASIC to display the following pattern using PRINT TAB, starting from 10th row and 10th column:**

```

* (START – 10th column)
**
***
****
*****
*****
*****
*****

```

```

10 CLS
20 PRINT TAB(10);"*"
30 PRINT TAB(9);"***"
40 PRINT TAB(8);"****"
50 PRINT TAB(7);"*****"
60 PRINT TAB(6);"*****"
70 PRINT TAB(5);"*****"
80 PRINT TAB(4);"*****"
90 END

```

**20. Write a program to accept the names of five colors and display them in different zones of the BASIC screen.**

```

10 INPUT "Enter five colors"; C1$, C2$, C3$, C4$, C5$
20 PRINT C1$, C2$, C3$, C4$, C5$
30 END

```

**21. Write a program to input and print your name, class, section and school name with suitable message in the given format:**

```

Name: .....
Class: ..... Section: .....
School: .....
10 INPUT "Your name"; N$
20 INPUT "Class"; C
30 INPUT "Section"; SN$
40 INPUT "School"; SC$
50 PRINT "Name: "; N$
60 PRINT "Class: "; C;
70 PRINT "Section: "; SN$
80 PRINT "School: "; SC$
90 END

```

**22. WAP to print the following using TAB(), starting with the 8th column:**

**INDIA**

**NDIA**

**DIA**

**IA**

**A**

```
10 PRINT TAB(8);"INDIA"  
20 PRINT TAB(9);"NDIA"  
30 PRINT TAB(10);"DIA"  
40 PRINT TAB(11);"IA"  
50 PRINT TAB(12);"A"  
60 END
```

**23. Write a program to accept a number and print whether it is negative or positive or zero.**

```
10 INPUT "Enter integer:";N  
20 IF N < 0 THEN PRINT "Negative"  
30 IF N > 0 THEN PRINT "Positive"  
40 IF N = 0 THEN PRINT "Zero"  
50 END
```

**24. Write a program to accept the day of the week in numeral and print it in words.**

```
10 INPUT "Day of the week in numeral"; D  
20 IF D=1 THEN PRINT "Monday"  
30 IF D=2 THEN PRINT "Tuesday"  
40 IF D=3 THEN PRINT "Wednesday"  
50 IF D=4 THEN PRINT "Thursday"  
60 IF D=5 THEN PRINT "Friday"  
70 IF D=6 THEN PRINT "Saturday"  
80 IF D=7 THEN PRINT "Sunday"  
90 END
```

**25. Write a program to accept the temperature in Fahrenheit and convert it into Celsius. If the converted value is below 25°C, then display "Cold" otherwise display "Not Cold".  $C = 5 / 9 (F - 32)$**

```
10 INPUT "Temperature in F";F  
20 LET C = 5 / 9 * (F - 32)  
30 IF C < 25 THEN PRINT "Cold" ELSE PRINT "Not Cold"  
40 END
```

**26. Write a program to accept the measure of two angles and check if they are supplementary.**

```
10 INPUT "First angle"; A  
20 INPUT "Second angle"; B  
30 LET SUM=A+B  
40 IF SUM=180 THEN PRINT "Supplementary" ELSE PRINT "Not Supplementary"  
50 END
```

**27. Write a program to accept the measure of two angles and check if they are complementary.**

```
10 INPUT "First angle"; A  
20 INPUT "Second angle"; B  
30 LET SUM=A+B  
40 IF SUM=90 THEN PRINT "Complementary" ELSE PRINT "Not complementary"  
50 END
```

**28. Write a program to accept the bill for a customer and offer 5% discount if the bill exceeds Rs. 1000. Display the bill to be paid by the customer.**

```
10 INPUT "Enter the bill amount"; B
20 IF B>1000 THEN D=B*5/100 ELSE D=0
30 LET AMT = B - D
40 PRINT "Amount Payable: ";AMT
50 END
```

**29. Write a program to accept the three angles and check if a triangle can be formed with those angles. Give a suitable message.**

```
10 INPUT "First angle"; A
20 INPUT "Second angle"; B
30 INPUT "Third angle"; C
40 LET SUM=A+B+C
50 IF A=180 THEN PRINT "Possible" ELSE PRINT "Not possible"
60 END
```

**30. Write a program to input two numbers and calculate and display their sum, difference, product and quotient. Note: Quotient to be found only if the second number is not zero.**

```
10 INPUT "First number"; N1
20 INPUT "Second number"; N2
30 LET S=N1+N2
40 LET D=N1-N2
50 LET P=N1*N2
60 PRINT "Sum="; S
70 PRINT "Difference="; D
80 PRINT "Product="; P
90 IF N2 <> 0 THEN PRINT "Quotient="; N1/N2
100 END
```

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