

JKXAEQ

TIME : 2 Hrs.

MARKS : 50

Instructions. :

- 1) Solve any 3 questions from Q. 1 to Q. 5
- 2) Solve any 1 questions Q.6 & Q.7.
- 3) Bracketed figures to the right indicate marks.

Q.1 a) Discuss the various generations of computers, bringing out the improvement in technology in each generation. [4]

b1) For each of the following algebraic expressions, write down the corresponding expressions in BASIC [2]

i) $\frac{5(A - A^2)}{3(2 + A)} \geq 0$

ii) $1 + \frac{1}{1 + \frac{1}{x + y}}$

2) Evaluate the following BASIC expression showing the sequence of operations. [2]

$$X = 3^2 - 3 * 2^4 + (5 * 6) / 4 - 7/2$$

c) Write a program in BASIC to find the sum of first 10, 30 and 50 natural numbers. Print sum on 3 consecutive lines. [4]

Q.2 a) Write short notes on : [4]

- 1) Secondary storage unit
- 2) Control unit

b) Write statements in BASIC for the following : [4]

- i) Add values of A, B, & C and then divide the sum by 3. Assign the value of this division to variable X after chopping off the fraction
- ii) To replace the two leftmost characters of A\$ by "...".
- iii) To print the string C\$ starting from 28th column of the line.
- iv) Print in the centre of a line the message :
KING IS DEAD; LONG LIVE THE KING !

c) What is a variable in BASIC ? Specify different types of variables. [1]

pdfMachine

A pdf writer that produces quality PDF files with ease!

Produce quality PDF files in seconds and preserve the integrity of your original documents. Compatible across nearly all Windows platforms, if you can print from a windows application you can use pdfMachine.

Get yours now!

Q.3 a) What is scanners ? How scanners differ from one another ? [4]

b) State the output for each of the following set of instructions in BASIC

```
1) 10 A$ = "SON" : B$ = "DAY"
    20 C$ = "SET"
    30 X$ = MID$(A$ + B$, 2, 4)
    40 Y$ = MID$(B$, 3, 1) + C$
    50 PRINT X$, Y$
    60 END
```

```
2) 10 A = 2; B = 5
    20 C = 8; D = 10
    30 X = INT (B/A) * C - D
    40 Y = (A + B + C + D) / 4
    50 PRINT X, Y
    60 END
```

c) Explain the use of the following statements in BASIC with example.

- 1) PRINT TAB statement
- 2) IF-THEN-ELSE Statement

Q.4 a) State whether the following statements are true or false. [4]

- 1) The arrow keys are used to move the cursor in the direction required.
- 2) Minicomputer support most high level languages like COBOL, BASIC, FORTRAN etc.
- 3) RAM is called as permanent & are not lost or erased when the current is switched off.
- 4) Dot matrix printers can print some tit lines from right to left.

b) Write a program in BASIC to find the sum(s) and print it. [4]

$$S = \frac{1}{1} + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \dots \text{ to 10 terms}$$

c) Identify errors if any in each of the following BASIC statements and write the correct statement.

- 1) 10 PRINT DATA
- 2) 750 LEFT\$(X\$, 1) = RIGHT\$(x\$, 1) Where X\$ = "ALPHA"
- 3) If $X * X - 2 * X + 5 < 2 * Y ^ 5$ then 100
- 4) FOR x(I)= 1 TO 10

Q.5 a) Write a note on buffers and spooler, proportional spacing, pitch options and font options features of printers. [4]

b) Write a program in BASIC to calculate and print sum of all multiples of 15 from 100 to 200. [4]

c) Explain the use of following commands in BASIC with illustration. [4]

- | | |
|---------|-----------|
| 1) AUTO | 2) DELETE |
| 3) LIST | 4) SAVE |

Q.6 a) Write short notes on :

- 1) Compiler [3]
- 2) Floppy disk drives [2]

b) Explain meaning of the following : [4]

- 1) 10 REM RESULT REPARATION
- 2) 230 STOP
- 3) 70 C\$ = A\$ + LEFT (X\$, 2)
- 4) 340 END

c) Write a program in BASIC to find duration (D) of a sprts events is measured in seconds. Convert it into hours (H), minutes (M) and seconds (S). [5]

Q.7 a) What are high and low level languages ? Give details of the various

b) State the output of the following :

[7]

- 1) 10 PRINT USING "####.##", 1374.5, 5.8
- 2) 20 PRINT USING "\$\$##, ##"; 2578, 26.5
- 3) 30 PRINT USING "\$*****" 658341
- 4) 40 PRINT USING "###^^^"; 375, 4995

