

7/12/09

IJ12ABS

Comp-prog

MARKS : 50

TIME : 2 hrs.

- INSTRUCTIONS :** 1) Solve ANY 3 questions from Q. No. 1 to Q. No. 5.
2) Solve ANY 1 question from Q. Nos. 6 and 7.
3) Bracketed figures to the right indicate marks.

- Q.1 a)** Discuss the various capabilities of the computer. (4)
- b)** State for what values of X each of the following BASIC expressions will hold. (4)
- i) $X < 7 \text{ AND } X < 5 \text{ OR } X < 10$
 - ii) $X < 3 \text{ AND } Y < 10 \text{ OR } X < 5 \text{ AND } Y < 15$
 - iii) $\text{NOT}(X > 8 \text{ OR } X < 3)$
 - iv) $X < 9 \text{ X OR } X < 7 \text{ AND } X < 12$
- Q.1 c)** Write a program in BASIC to find the factorial of a given number 'N' (4)
- Q.2 a)** What is a central processing unit? Describe each of its components. (4)
- b) Write statements in BASIC for the following.** (5)
- i) To print the first two characters of the string As
 - ii) Declare an array X having 50 elements.
 - iii) To multiply the value of H by 60 and value of M to it and store the result in variable P.
 - iv) Interchange the values of A and B, Print their values.
 - v) Execute a loop 100 times.
- c)** Explain the use of READ-DATA statement and READ-DATA-RESTOR statement with examples. (3)
- Q.3 a) Distinguish Between** (4)
- i) Compilers and interpreters
 - b) State the output for each of the following set of instructions in BASIC
- i) $10 \text{ P\$} = \text{"PARSHVA"}$
 $20 \text{ A\$} = \text{MID\$}(\text{P\$}, 3, 1) + \text{"AJI"} + \text{MID\$}(\text{P\$}, 6, 1)$
 $30 \text{ B\$} = \text{"VI"} + \text{RIGHT\$}(\text{P\$}, 4) + \text{"NATH"}$
 $40 \text{ PRINT A\$}$
 $50 \text{ PRINT B\$}$
 60 END
 - ii) $10 \text{ A} = 4$
 $20 \text{ C} = -30.25$
 $30 \text{ B} = 5.6897$
 $40 \text{ K} = \text{INT}(\text{B})$

P.T.O.

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50 L = SGN (C) * A
60 M = SQR (A) * K
70 PRINT K, L, M,
80 END

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

i) GOTO statement

ii) IF - THEN Statement

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

i) Chain printers are impact printers.

ii) The read / write head touches the surface of a winchester disk while reading data.

iii) Programs written in higher level language consists of a series of 0's and 1's.

iv) ENIAC was the first computer to use transistors.

b) Write a program in BASIC to find largest of three numbers.

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

i) 100 LET X = "SAN"

ii) 70 FOR N = 5 To 10 STEP - 2

iii) 120 DATA A\$, "BON", 10

Q.5 a) What are Laser printers? What is the technology used in Laser Printers

b) Write a program in BASIC to find the area of a circle and circumference of a circle with radius R using the formula.

Area = πR^2 and circumference = $2\pi R$ Where $\pi = \frac{22}{7}$

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

i) LEN ii) PRINT TAB iii) FIX

Q.6 a) What are the different types of secondary storage devices. Explain the features of any two of them.

b) Write instructions in BASIC for the following.

i) To print value of A rounded to nearest 10

ii) Replace middle two characters of A\$ = "BREATH" by "--".

iii) Increase HRA by 15%.

