BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: BTECH/IMSC   SEMESTER: II
BRANCH: ECE/EEE/CSE/IT/MATHS & COMP./PHYSICS   SESSION: SP/2020

SUBJECT: CS101 PROGRAMMING FOR PROBLEM SOLVING

TIME: 2 HOURS   FULL MARKS: 25

INSTRUCTIONS:
1. The total marks of the questions are 25.
2. Candidates may attempt for all 25 marks.
3. Before attempting the question paper, be sure that you have got the correct question paper.
4. The missing data, if any, may be assumed suitably.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

				CO	BL
Q1	(a)	What was the processing speed of first generation computers in seconds?	[2]	CO1	BL1
Q1	(b)	Differentiate between minicomputers and mainframe computers?	[3]	CO1	BL3
Q2	(a)	What are the different types of memory?	[2]	CO1	BL1
Q2	(b)	Write the algorithm to compute area of a circle.	[3]	CO1,CO2	BL6
Q3	(a)	What are the rules for naming a variable?	[2]	CO1,CO2	BL1
Q3	(b)	Draw a flowchart to find largest of three numbers.	[3]	CO2	BL6
Q4	(a)	Write the difference between compiler and interpreter?	[2]	CO1	BL6
Q4	(b)	Write a C program to reverse an array.	[3]	CO4	BL6

Q5   (a) Predict output of the following program: [2] CO3,CO4 BL6
          int main()

          {

              int a[][] = {{1,2},{3,4}};

              int i, j;

              for (i = 0; i < 2; i++)

                 for (j = 0; j < 2; j++)

                    printf("%d ", a[i][j]);

              return 0;

          }

Q5   (b) Write a C program to find the number of duplicate elements in any one-   [3]   CO3,   BL6
          dimensional array of finite size.   CO4

:::: 02/03/2020M ::::::