

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: M.TECH
BRANCH: ECE**

**SEMESTER : III
SESSION : MO/19**

SUBJECT: EC611 VIRTUAL INSTRUMENTATION

TIME: 3 HOURS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Compare between text-based programming and graphical programming. Give the example of a program which involve for loop to explain text-based programming and graphical programming. [5]
- Q.1(b) Write down the LabVIEW program for temperature conversion from Fahrenheit to Centigrade. [5]
- Q.2(a) What is sub VI. Where it is used. Develop a sub VI sort an array. [5]
- Q.2(b) Use Sort array sub-VI to find the rank of the students in a class of 10 students, and five different subjects. [5]
- Q.3(a) Design a counter which will count up/down as per user requirement. The range of count is between 50-100. [5]
- Q.3(b) Explain R-2R type DAC. Compare it with binary weighted type DAC. [5]
- Q.4(a) Differentiate between local variable and global variable. [5]
- Q.4(b) With suitable example explain the process for disabling the code in Labview. [5]
- Q.5(a) Explain how filtering is used in noise removal in audio system. Write the labVIEW code for this process. [5]
- Q.5(b) Write down a LabVIEW program to select the low value of the two input parameters at the output. Give a suitable process example. [5]

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