Registration no: ☐☐☐☐☐☐☐☐☐☐

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B.Tech
PEEI5304

6th Semester Back Examination 2016-17
INTELLIGENT AND VIRTUAL INSTRUMENTATION
BRANCH: AEIE,EIE,IEE
Time: 3 Hours
Max Marks: 70
Q.CODE: Z690
Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**
  a) What is binary fuzzy relation?
  b) Differentiate between crisp set and fuzzy set with suitable example
  c) What is three layer of perception?
  d) What is VISA?
  e) What is coercion dot?
  f) Define File I/O function.
  g) What are the different structures available in LabVIEW?
  h) What is defuzzification?
  i) What is pop-up menu?   bput question papers visit http://www.bputonline.com
  j) Distinguish between graph and chart

Q2 **a)** Explain Fuzzy logic control **(2)**
  b) Explain why an MLP does not learn if the initial weights and biases are zero. **(8)**

Q3 **a)** Explain Back propagation algorithm with an example. **(5)**
  b) What is neural network? How it helps to solve many complex problem **(5)**

Q4 **a)** What is different file format available in LabVIEW? Explain each in brief. **(5)**
  b) What are the tools in labVIEW helps in parallel programming discuss in brief **(5)**

Q5 **a)** Explain, RS232, RS485 interfaces in brief. **(5)**
  b) Explain MLP and recurrent Network. **(5)**

Q6 **a)** What is DAQ? Explain features of DAQ. Explain different configuration of DAQ. **(5)**
  b) What is Shift register? Illustrate with suitable example. **(5)**

Q7 What is state machine? Using LabVIEW illustrate State machine with suitable example. **(10)**

Q8 **Write short answer on any TWO:** **(5 x 2)**

a) Auto indexing

b) GPIB

c) Hopfield Neural network

d) Sequence structure and case structure