Code No: R05411002 **R05** **Set No. 2**

IV B.Tech I Semester Examinations,December 2010
VIRTUAL INSTRUMENTATION
Common to Instrumentation And Control Engineering, Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Why the simulation of a system required using virtual instrumentation? Describe about the various simulations of systems using virtual instrumentation. [16]
2. What is a PXI controller, define the various types of PXI controller in detail? [16]
3. Explain the development of process data base management system with respect to its architecture. [16]
4. With a suitable figure explain about the essential features of operating system for PC based Instrumentation in detail. [16]
5. Write about Active-X-Programming and explain it with the help of SCADA software. [16]
6. Create a VI that plots an ellipse
   $r^2 = A^2B^2/(A^2 \sin^2 \alpha + B^2 \cos^2 \alpha)$
   Where r, A, and B are input parameters and $0 <= \alpha = 2\Pi$. [16]
7. What are the types of faults in the add-on card you should catch by a careful visual inspection? Explain. [16]
8. Write and Explain the VISA in developing by using compatibility VI's and conventional VI's in coding for the device simulator both in RS232 and GPIB with architecture representation? [16]

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Code No: R05411002 **R05** **Set No. 4**

IV B.Tech I Semester Examinations,December 2010
VIRTUAL INSTRUMENTATION
Common to Instrumentation And Control Engineering, Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

⋆ ⋆ ⋆ ⋆ ⋆

1. Write about Active-X-Programming and explain it with the help of SCADA software. [16]
2. With a suitable figure explain about the essential features of operating system for PC based Instrumentation in detail. [16]
3. Write and Explain the VISA in developing by using compatibility VI's and conventional VI's in coding for the device simulator both in RS232 and GPIB with architecture representation? [16]
4. What are the types of faults in the add-on card you should catch by a careful visual inspection? Explain. [16]
5. Create a VI that plots an ellipse
   $r^2 = A^2B^2/(A^2 \sin^2 \alpha + B^2 \cos^2 \alpha)$
   Where r, A, and B are input parameters and $0 <= \alpha = 2\Pi$. [16]
6. What is a PXI controller, define the various types of PXI controller in detail? [16]
7. Explain the development of process data base management system with respect to its architecture. [16]
8. Why the simulation of a system required using virtual instrumentation? Describe about the various simulations of systems using virtual instrumentation. [16]

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Code No: R05411002 **R05** **Set No. 1**

IV B.Tech I Semester Examinations,December 2010
VIRTUAL INSTRUMENTATION
Common to Instrumentation And Control Engineering, Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the development of process data base management system with respect to its architecture. [16]
2. What are the types of faults in the add-on card you should catch by a careful visual inspection? Explain. [16]
3. With a suitable figure explain about the essential features of operating system for PC based Instrumentation in detail. [16]
4. Why the simulation of a system required using virtual instrumentation? Describe about the various simulations of systems using virtual instrumentation. [16]
5. What is a PXI controller, define the various types of PXI controller in detail? [16]
6. Write and Explain the VISA in developing by using compatibility VI's and conventional VI's in coding for the device simulator both in RS232 and GPIB with architecture representation? [16]
7. Write about Active-X-Programming and explain it with the help of SCADA software. [16]
8. Create a VI that plots an ellipse
   $r^2 = A^2B^2/(A^2 \sin^2 \alpha + B^2 \cos^2 \alpha)$
   Where r, A, and B are input parameters and $0 <= \alpha = 2\Pi$. [16]

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Code No: R05411002 **R05** **Set No. 3**

IV B.Tech I Semester Examinations,December 2010
VIRTUAL INSTRUMENTATION
Common to Instrumentation And Control Engineering, Electronics And Instrumentation Engineering

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Write and Explain the VISA in developing by using compatibility VI's and conventional VI's in coding for the device simulator both in RS232 and GPIB with architecture representation? [16]
2. What is a PXI controller, define the various types of PXI controller in detail? [16]
3. Why the simulation of a system required using virtual instrumentation? Describe about the various simulations of systems using virtual instrumentation. [16]
4. What are the types of faults in the add-on card you should catch by a careful visual inspection? Explain. [16]
5. Write about Active-X-Programming and explain it with the help of SCADA software. [16]
6. With a suitable figure explain about the essential features of operating system for PC based Instrumentation in detail. [16]
7. Explain the development of process data base management system with respect to its architecture. [16]
8. Create a VI that plots an ellipse
   $r^2 = A^2B^2/(A^2 \sin^2 \alpha + B^2 \cos^2 \alpha)$
   Where r, A, and B are input parameters and $0 <= \alpha = 2\Pi$. [16]

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