Code No: RR10202 | **RR** | **Set No. 2**

**I B.Tech Examinations,December 2010**
**INFORMATION TECHNOLOGY AND NUMERICAL METHODS**
**Common to BME, IT, BT, ICE, E.COMP.E, ETM, E.CONT.E, EIE, CSE, ECE, CSSE, EEE**

Time: 3 hours                                                        Max Marks: 80

**Answer any FIVE Questions**
**All Questions carry equal marks**
⋆ ⋆ ⋆ ⋆ ⋆

1. Obtain the unique polynomial P(x) of degree 5 or less corresponding to f(x), where
   $f(x_0) = 1,$       $f'(x_0) = 2,$       $f''(x_0) = 1,$
   $f(x_1) = 3,$       $f'(x_1) = 0,$       $f''(x_1) = -2,$
   Also find $P((x_0+x_1)/2)$. [16]

2. (a) Explain Customizing Toolbars and Menus of Office - 2000

   (b) Explain the creation of a drawing with auto shapes and drawing tools available in Office-2000. [8+8]

3. (a) Describe the feature of the following input devices.
      i. Hard devices
      ii. Mouse
      iii. Keyboard
      iv. Network link.

   (b) Compare and contrast the differences among mini and main frame and micro-computers. [8+8]

4. (a) Write a brief notes on user interface features of an operating system.

   (b) Write short notes on the program running features in operating system.[8+8]

5. (a) What is meant by 'portability' in computer languages.

   (b) Distinguish between third generation and fourth generation languages.[6+10]

6. Explain about any four common media for data communication. [16]

7. Evaluate $I = \int_{0}^{1}\left(\dfrac{1}{1+x^2}\right)dx$ using

   (a) Composite Trapezoidal rule with 2,3,5,9 nodes and

   (b) Composite Simpson's rule with 3,5,9 nodes. [8+8]

8. (a) Briefly explain the Gauss - Seidel Method and give the algorithm.

   (b) Obtain the solution of the following system using Gauss - Seidel iteration Method.
      $2x_1+x_2+x_3= 5$
      $3x_1+5x_2+2x_3= 15$                                            [8+8]
      $2x_1+x_2+4x_3= 8$

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Code No: RR10202 $\boxed{\textbf{RR}}$ $\boxed{\textbf{Set No. 4}}$

**I B.Tech Examinations,December 2010**
**INFORMATION TECHNOLOGY AND NUMERICAL METHODS**
**Common to BME, IT, BT, ICE, E.COMP.E, ETM, E.CONT.E, EIE, CSE,**
**ECE, CSSE, EEE**

Time: 3 hours                                                                 Max Marks: 80

**Answer any FIVE Questions**
**All Questions carry equal marks**
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) Describe the feature of the following input devices.
   i. Hard devices
   ii. Mouse
   iii. Keyboard
   iv. Network link.
   (b) Compare and contrast the differences among mini and main frame and micro-computers. [8+8]

2. (a) What is meant by 'portability' in computer languages.
   (b) Distinguish between third generation and fourth generation languages.[6+10]

3. Obtain the unique polynomial P(x) of degree 5 or less corresponding to f(x), where
   $f(x_0) = 1$,      $f'(x_0) = 2$,      $f''(x_0) = 1$,
   $f(x_1) = 3$,      $f'(x_1) = 0$,      $f''(x_1) = -2$,
   Also find $P((x_0+x_1)/2)$. [16]

4. (a) Explain Customizing Toolbars and Menus of Office - 2000
   (b) Explain the creation of a drawing with auto shapes and drawing tools available in Office-2000. [8+8]

5. (a) Briefly explain the Gauss - Seidel Method and give the algorithm.
   (b) Obtain the solution of the following system using Gauss - Seidel iteration Method.
   $2x_1+x_2+x_3 = 5$
   $3x_1+5x_2+2x_3 = 15$                                                    [8+8]
   $2x_1+x_2+4x_3 = 8$

6. Evaluate $I = \int_{0}^{1} \left( \dfrac{1}{1+x^2} \right) dx$ using

   (a) Composite Trapezoidal rule with 2,3,5,9 nodes and
   (b) Composite Simpson's rule with 3,5,9 nodes. [8+8]

7. Explain about any four common media for data communication. [16]

8. (a) Write a brief notes on user interface features of an operating system.
   (b) Write short notes on the program running features in operating system.[8+8]

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Code No: RR10202

RR

Set No. 4

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Code No: RR10202  | RR |  | Set No. 1 |

**I B.Tech Examinations,December 2010**
**INFORMATION TECHNOLOGY AND NUMERICAL METHODS**
**Common to BME, IT, BT, ICE, E.COMP.E, ETM, E.CONT.E, EIE, CSE,**
**ECE, CSSE, EEE**

Time: 3 hours                                                              Max Marks: 80
**Answer any FIVE Questions**
**All Questions carry equal marks**
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1. (a) Write a brief notes on user interface features of an operating system.
   (b) Write short notes on the program running features in operating system.[8+8]

2. (a) Briefly explain the Gauss - Seidel Method and give the algorithm.
   (b) Obtain the solution of the following system using Gauss - Seidel iteration
   Method.
   $2x_1+x_2+x_3= 5$
   $3x_1+5x_2+2x_3= 15$                                                        [8+8]
   $2x_1+x_2+4x_3= 8$

3. (a) Explain Customizing Toolbars and Menus of Office - 2000
   (b) Explain the creation of a drawing with auto shapes and drawing tools available
   in Office-2000.                                                            [8+8]

4. (a) Describe the feature of the following input devices.
      i. Hard devices
      ii. Mouse
      iii. Keyboard
      iv. Network link.
   (b) Compare and contrast the differences among mini and main frame and micro-
   computers.                                                                 [8+8]

5. Explain about any four common media for data communication.              [16]

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7. Obtain the unique polynomial P(x) of degree 5 or less corresponding to f(x), where
   $f(x_0) = 1$,      $f'(x_0) = 2$,      $f''(x_0) = 1$,
   $f(x_1) = 3$,     $f'(x_1) = 0$,     $f''(x_1) = -2$,
   Also find $P((x_0+x_1)/2)$.                                                [16]

8. Evaluate $I = \int_0^1 \left( \frac{1}{1+x^2} \right) dx$ using
   (a) Composite Trapezoidal rule with 2,3,5,9 nodes and
   (b) Composite Simpson's rule with 3,5,9 nodes.                            [8+8]

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Code No: RR10202 | **RR** | **Set No. 3**

**I B.Tech Examinations,December 2010**
**INFORMATION TECHNOLOGY AND NUMERICAL METHODS**
**Common to BME, IT, BT, ICE, E.COMP.E, ETM, E.CONT.E, EIE, CSE,**
**ECE, CSSE, EEE**

Time: 3 hours                                             Max Marks: 80
**Answer any FIVE Questions**
**All Questions carry equal marks**
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1. (a) Write a brief notes on user interface features of an operating system.

   (b) Write short notes on the program running features in operating system.[8+8]

2. (a) Explain Customizing Toolbars and Menus of Office - 2000

   (b) Explain the creation of a drawing with auto shapes and drawing tools available in Office-2000. [8+8]

3. Obtain the unique polynomial $P(x)$ of degree 5 or less corresponding to $f(x)$, where
   $f(x_0) = 1,$      $f'(x_0) = 2,$      $f''(x_0) = 1,$
   $f(x_1) = 3,$      $f'(x_1) = 0,$      $f''(x_1) = -2,$
   Also find $P((x_0+x_1)/2)$. [16]

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      iv. Network link.

   (b) Compare and contrast the differences among mini and main frame and micro-computers. [8+8]

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   $2x_1+x_2+x_3= 5$
   $3x_1+5x_2+2x_3= 15$                                            [8+8]
   $2x_1+x_2+4x_3= 8$

7. Explain about any four common media for data communication. [16]

8. Evaluate $I = \int_0^1 \left( \frac{1}{1+x^2} \right) dx$ using

   (a) Composite Trapezoidal rule with 2,3,5,9 nodes and

   (b) Composite Simpson's rule with 3,5,9 nodes. [8+8]

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