ASSIGNMENT 8

Due on: 2020-10-25, 23:59 IST.

Unit 10 - Week 8

Assignment

1. a) Parameter estimation method is a curve fitting –
   - Initial Signal
   - Control Signal
   - Signal Parameters
   - System Parameters
   - Estimate Parameters
   - Adapt
   - No. the present is incorrect.
   - Accepted Answer: 1

b) We have in system identification to use to –
   - Choose the order to have and tune some parameters to data.
   - Consider a standard model and tune the parameters to the data.
   - Estimate parameters of a physical model to data.
   - All of the above
   - No. the present is incorrect.
   - Accepted Answer: 2

2. Scroll list in system identification is used to –
   - Choose the number to have and tune some parameters to data.
   - Choose a standard model and tune the parameters to the data.
   - Estimate parameters of a physical model to data.
   - All of the above
   - No. the present is incorrect.
   - Accepted Answer: 1

3. c) CDFT table is used for analysis –
   - Initial Signals
   - Output Signals
   - Control Signals
   - None of the above
   - No. the present is incorrect.
   - Accepted Answer: 2

4. d) System parameters (in the 2 and higher square matrix method for the case A = B).
   - A = B
   - A = 0
   - A = 1
   - A = 2
   - No. the present is incorrect.
   - Accepted Answer: 2

5. a) X is the parameters in the 2 and higher square matrix method for the case A = B. Where the parameters are estimated to –
   - A = B
   - A = 0
   - A = 1
   - A = 2
   - No. the present is incorrect.
   - Accepted Answer: 1

6. a) Why the present is incorrect.
   - No. the present is incorrect.
   - Accepted Answer: 3

7. a) Graphical method is used when –
   - Problem having only one design variable
   - Problem having any one design variable
   - Problem having only two design variables
   - Problem having more than three design variables
   - None of the above
   - No. the present is incorrect.
   - Accepted Answer: 4

8. a) Solution method is applicable to –
   - Single variable
   - Multi variable
   - All of the above
   - None of the above
   - No. the present is incorrect.
   - Accepted Answer: 4

9. a) Integration of search in C/D. Plot not initial of uncertainty after fourth iteration using Solution section method –
   - Ideal
   - 90deg
   - 180deg
   - None of the above
   - No. the present is incorrect.
   - Accepted Answer: 1

10. a) If manufacturer makes products A, B, and C. The profit are types, 2, 4, and 6 respectively. The manufacturer makes 10, 8, and 5 units in the following table to obtain the highest number of units for product A, B, and C. Select the correct objective function which maximizes the profit. Assume that X1, X2, and X3 are means produced for products A, B, and C.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

   f (X1) = 2X1 + 3X2 + 4X3
   f (X2) = 2X1 + 3X2 + 4X3
   f (X3) = 2X1 + 3X2 + 4X3

   No. the present is incorrect.
   - Accepted Answer: 4

11. a) Solve the linear programming problem

   Minimize (2 - 25% + 10X) Subject to the constraints:

   X1 + 2X2 ≤ 40
   (3X1 + X2) ≥ 30
   4X1 + X2 = 10
   X1, X2 ≥ 0

   The optimum value of X is.

   200
   200
   140
   90
   No. the present is incorrect.
   - Accepted Answer: 1