

**COMSATS University Islamabad, Lahore Campus**

**Defense Road, Off Raiwind Road, Lahore.042-111-001-007 Ext: 860**

**DEPARTMENT OF MANAGEMENT SCIENCES**

**Assignment No. 2**

**Name of Students : Muhammad Uqba**

**Registration No. : FA18-BSE-049**

**Course Code : CSE-356**

**Course Title : Formal Methods**

**Program Name : BSE**

**Semester : Spring 2020**

**Submission Date : 28-05-2020**

**Teacher Name : Farooq Ahmad**

Question 1:

1. **{nut, bolt} price**

**Answer:** {(nut, 3), (bolt, 5)}

1. **dom(price 1…5).**

**Answer:** {board, fastener}

1. **rng(price 1…10).**

**Answer:** {3, 5, 1}

1. **dom(supplies; (in\_stock {0})).**

**Answer:** {Wilks, Rogers}

1. **price ⊕ {(hanger,2),(screw, 2)}**

**Answer:** {(nut, 3), (bolt, 5), (screw, 1), (board, 17), (fastener, 12) , (screw, 2), (hanger,2)}

1. **dom(supplies;(price 5…20)).**

**Answer:** { Thomas, Wilks}

1. **supplies |{ | Rogers, Wilson} )**

**Answer:** {board, fastener}

1. **((supplies; price) 1…10) | | {Robinson, Rogers} )**

**Answer:** {}

1. **{Thomas} supplies.**

**Answer:** {(Wilks, bolt), (Wilks, screw), (Wilks, board), (Wilks, fastener), (Rogers, board), (Rogers, fastener)}

1. **(in\_stock {0}) ( | |{nut, bolt}**

**Answer:** {}

**Question 2**

1. **FALSE**
2. **TRUE**
3. **FALSE**
4. **TRUE**
5. **FALSE**
6. **TRUE**
7. **TRUE**
8. **TRUE**
9. **FALSE**
10. **TRUE**