



B.P. Poddar Institute of Management and Technology
Department of Information Technology

List of assignments

Subject : Software Engineering & TQM Laboratory

Paper Code : MCA-491

Stream : MCA (2nd year 2nd semester)

Experiment No. (E)	Description
E1	<i>Preparation of a Brief Synopsis for Banking System Software.</i>
E2	<i>Preparation of SRS document for Invoice Processing System Software.</i>
E3	<i>Preparation of Context Diagram and DFD up to level2 for Banking System Software.</i>
E4	<i>Preparation of Context Diagram and DFD up to level2 for Invoice Processing System Software.</i>
E5	<i>Preparation of Context Diagram and DFD up to level2 for Super Market Automation System Software.</i>
E6	<i>Preparation of Context Diagram and DFD up to level2 for Tic-Tac-Toe Computer Game Software.</i>
E7	<i>Preparation of Context Diagram and DFD up to level2 for Road Repair & Tracking System Software.</i>
E8	<i>Preparation of Context Diagram and DFD up to level2 for Hotel Automation System Software.</i>
E9	<i>Draw UML diagrams for Super Market Automation System Software using</i> <i>i) Use Case Diagram</i> <i>ii) Class Diagram</i> <i>iii) Sequence Diagram</i> <i>iv) Collaboration Diagram</i> <i>v) State Diagram</i> <i>vi) Activity Diagram</i> <i>vii) Deployment Diagram</i>



B.P. Poddar Institute of Management and Technology
Department of Information Technology

E10	<p><i>Draw UML diagrams for Hotel Automation System Software using</i></p> <p><i>i) Use Case Diagram</i></p> <p><i>ii) Class Diagram</i></p> <p><i>iii) Sequence Diagram</i></p> <p><i>iv) Collaboration Diagram</i></p> <p><i>v) State Diagram</i></p> <p><i>vi) Activity Diagram</i></p> <p><i>vii) Deployment Diagram</i></p>																																																												
E11	<p><i>Develop the associated network, PERT Chart, Gantt Chart for the following four projects' schedules:</i></p> <p><i>i)</i></p> <table border="1" data-bbox="437 1064 1311 1715"> <thead> <tr> <th></th> <th>Activity</th> <th>Predecessor or</th> <th>Duration (week)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td><i>Manuscript proof reading by editor</i></td> <td>--</td> <td>3</td> </tr> <tr> <td>B</td> <td><i>Sample pages prepared by typesetter</i></td> <td>--</td> <td>2</td> </tr> <tr> <td>C</td> <td><i>Book color design</i></td> <td>--</td> <td>4</td> </tr> <tr> <td>D</td> <td><i>Preparation of artwork for book figures</i></td> <td>--</td> <td>3</td> </tr> <tr> <td>E</td> <td><i>Authors approved of edited manuscript</i></td> <td>A, B</td> <td>2</td> </tr> <tr> <td>F</td> <td><i>Book typesetting</i></td> <td>E</td> <td>4</td> </tr> <tr> <td>G</td> <td><i>Author checks typeset pages</i></td> <td>F</td> <td>2</td> </tr> <tr> <td>H</td> <td><i>Author checks artwork</i></td> <td>D</td> <td>1</td> </tr> <tr> <td>I</td> <td><i>Production of printing plates</i></td> <td>G, H</td> <td>2</td> </tr> <tr> <td>J</td> <td><i>Book production and binding</i></td> <td>C, I</td> <td>4</td> </tr> </tbody> </table> <p><i>ii)</i></p> <table border="1" data-bbox="437 1792 1197 2033"> <thead> <tr> <th></th> <th>Activity</th> <th>Predecessor or</th> <th>Duration (week)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td><i>Forecast sales volume</i></td> <td>--</td> <td>10</td> </tr> <tr> <td>B</td> <td><i>Study competitive market</i></td> <td>--</td> <td>7</td> </tr> <tr> <td>C</td> <td><i>Design item and</i></td> <td>A</td> <td>5</td> </tr> </tbody> </table>		Activity	Predecessor or	Duration (week)	A	<i>Manuscript proof reading by editor</i>	--	3	B	<i>Sample pages prepared by typesetter</i>	--	2	C	<i>Book color design</i>	--	4	D	<i>Preparation of artwork for book figures</i>	--	3	E	<i>Authors approved of edited manuscript</i>	A, B	2	F	<i>Book typesetting</i>	E	4	G	<i>Author checks typeset pages</i>	F	2	H	<i>Author checks artwork</i>	D	1	I	<i>Production of printing plates</i>	G, H	2	J	<i>Book production and binding</i>	C, I	4		Activity	Predecessor or	Duration (week)	A	<i>Forecast sales volume</i>	--	10	B	<i>Study competitive market</i>	--	7	C	<i>Design item and</i>	A	5
	Activity	Predecessor or	Duration (week)																																																										
A	<i>Manuscript proof reading by editor</i>	--	3																																																										
B	<i>Sample pages prepared by typesetter</i>	--	2																																																										
C	<i>Book color design</i>	--	4																																																										
D	<i>Preparation of artwork for book figures</i>	--	3																																																										
E	<i>Authors approved of edited manuscript</i>	A, B	2																																																										
F	<i>Book typesetting</i>	E	4																																																										
G	<i>Author checks typeset pages</i>	F	2																																																										
H	<i>Author checks artwork</i>	D	1																																																										
I	<i>Production of printing plates</i>	G, H	2																																																										
J	<i>Book production and binding</i>	C, I	4																																																										
	Activity	Predecessor or	Duration (week)																																																										
A	<i>Forecast sales volume</i>	--	10																																																										
B	<i>Study competitive market</i>	--	7																																																										
C	<i>Design item and</i>	A	5																																																										



B.P. Poddar Institute of Management and Technology
Department of Information Technology

	<i>facilities</i>		
<i>D</i>	<i>Prepare production schedule</i>	<i>C</i>	<i>3</i>
<i>E</i>	<i>Estimate cost of production</i>	<i>D</i>	<i>2</i>
<i>F</i>	<i>Set sales price</i>	<i>B, E</i>	<i>1</i>
<i>G</i>	<i>Prepare budget</i>	<i>E, F</i>	<i>14</i>

iii)

	Activity	Predecessor	Duration (week)
<i>A</i>	<i>Select music</i>	<i>--</i>	<i>21</i>
<i>B</i>	<i>Learn music</i>	<i>A</i>	<i>14</i>
<i>C</i>	<i>Make copies and buy books</i>	<i>A</i>	<i>14</i>
<i>D</i>	<i>Tryouts</i>	<i>B, C</i>	<i>3</i>
<i>E</i>	<i>Rehearsals</i>	<i>D</i>	<i>70</i>
<i>F</i>	<i>Rent candelabra</i>	<i>D</i>	<i>14</i>
<i>G</i>	<i>Decorate candelabra</i>	<i>F</i>	<i>1</i>
<i>H</i>	<i>Set up decorations</i>	<i>D</i>	<i>1</i>
<i>I</i>	<i>Order choices robe stoles</i>	<i>D</i>	<i>7</i>
<i>J</i>	<i>Check out public address system</i>	<i>D</i>	<i>7</i>
<i>K</i>	<i>Select music tracks</i>	<i>J</i>	<i>14</i>
<i>L</i>	<i>Set up public address system</i>	<i>K</i>	<i>1</i>
<i>M</i>	<i>Final rehearsal</i>	<i>G, L</i>	<i>1</i>
<i>N</i>	<i>Choir party</i>	<i>H, L, M</i>	<i>1</i>
<i>O</i>	<i>Final prog</i>	<i>I, N</i>	<i>1</i>

iv)

	Activity	Predecessor	Duration (week)
<i>A</i>	<i>Conduct feasibility study</i>	<i>--</i>	<i>3</i>
<i>B</i>	<i>Find potential buyer for present car</i>	<i>A</i>	<i>14</i>
<i>C</i>	<i>List possible models</i>	<i>A</i>	<i>1</i>
<i>D</i>	<i>Represents all possible models</i>	<i>C</i>	<i>3</i>
<i>E</i>	<i>Conduct interview with</i>	<i>C</i>	<i>1</i>



B.P. Poddar Institute of Management and Technology
Department of Information Technology

		<i>mechanic</i>		
	<i>F</i>	<i>Collect dealer propaganda</i>	<i>C</i>	<i>2</i>
	<i>G</i>	<i>Compile pertinent data</i>	<i>D, E, F</i>	<i>2</i>
	<i>H</i>	<i>Choose top three models</i>	<i>G</i>	<i>1</i>
	<i>I</i>	<i>Test drive all three choices</i>	<i>H</i>	<i>3</i>
	<i>J</i>	<i>Gather warranty and financing data</i>	<i>H</i>	<i>2</i>
	<i>K</i>	<i>Choose one car</i>	<i>I, J</i>	<i>2</i>
	<i>L</i>	<i>Choose dealer</i>	<i>K</i>	<i>2</i>
	<i>M</i>	<i>Search for desired color and options</i>	<i>L</i>	<i>4</i>
	<i>N</i>	<i>Test drive chosen model once again</i>	<i>L</i>	<i>1</i>
	<i>O</i>	<i>Purchase new car</i>	<i>B, M, N</i>	<i>3</i>