

Answer Key (S. Y. B. A. Sem-IV) Paper-III, UASTA402 Set-II

00068239

Q.1(a)	<i>i. → b), ii. → a), iii. → c), iv. → a), v. → c), vi. → d) and vii. → d)</i>																																				
Q.2 (ii)	<i>Critical Path is = 1 → 2 → 5 → 7 → 8, Project Completion Time = 19 days, Probability that the project will be completed by 17 days = 0.2514</i>																																				
Q.2(iii)	<p><i>Critical Path is = A → B → D → F → H , Critical Activities: A, B, D, F, H, Non-Critical Activities: C, E, G</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Activity</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Total Float</td> <td>0</td> <td>0</td> <td>10</td> <td>0</td> <td>8</td> <td>0</td> <td>8</td> <td>0</td> </tr> <tr> <td>Free Float</td> <td>0</td> <td>0</td> <td>10</td> <td>0</td> <td>0</td> <td>0</td> <td>8</td> <td>0</td> </tr> <tr> <td>Independent Float</td> <td>0</td> <td>0</td> <td>10</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	Activity	A	B	C	D	E	F	G	H	Total Float	0	0	10	0	8	0	8	0	Free Float	0	0	10	0	0	0	8	0	Independent Float	0	0	10	0	0	0	0	0
Activity	A	B	C	D	E	F	G	H																													
Total Float	0	0	10	0	8	0	8	0																													
Free Float	0	0	10	0	0	0	8	0																													
Independent Float	0	0	10	0	0	0	0	0																													
Q.3(i)(b)	<i>Strategy = (Row = 2, Column = 3) and Value of the game is $V = 4$</i>																																				
Q.3(ii)	$S_A = \begin{bmatrix} A_1 & A_2 & A_3 & A_4 & A_5 & A_6 \\ 0 & \frac{3}{5} & 0 & \frac{2}{5} & 0 & 0 \end{bmatrix}$ and $S_B = \begin{bmatrix} B_1 & B_2 \\ \frac{4}{5} & \frac{1}{5} \end{bmatrix}$ and Value of Game is $V = \frac{17}{5}$																																				
Q.3(iii) (b)	$S_A = \begin{bmatrix} A_1 & A_2 & A_3 \\ \frac{1}{2} & \frac{1}{2} & 0 \end{bmatrix}$ and $S_B = \begin{bmatrix} B_1 & B_2 & B_3 \\ \frac{2}{3} & \frac{1}{3} & 0 \end{bmatrix}$ and Value of Game is $V = 0$																																				
Q.4 (ii)	<p>(a) Maximin Criteria=10,000 for Premium Model (b) Maximax Criteria=80,000 for Economy Model (c) Hurwicz Criteria=59,750 for Economy Model (d) Laplace Criteria=32,250 for Premium Model (e) Minimax Regret Criteria=10,000 Premium Model</p>																																				
Q.5 (i) (b)	<i>Critical Path is = A → B → D → D₁ → G → H , Critical Activities: A, B, D, F, H, Non-Critical Activities: C, E, G, Project Completion Time: 23 days</i>																																				
Q.5(iii) (b)	<i>Maximum EMV = 8.9 lakhs, Optimal Decision = B</i>																																				