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Question: A certain village, in anticipation of possible losses due to flu-re...



A certain village, in anticipation of possible losses due to flu-related sickness among its residents, is faced with three possible options: (1) stock 2000 units of type A flu vaccine only, (2) stock 2000 units of type B flu only, or (3) stock 1000 units of each type of flu vaccine. Based on the three possible events—light epidemic, moderate epidemic, and heavy epidemic outbreaks. With this anticipation, the village has determined conditional losses in worker-days due to sickness which is shown below:

Alternative	Level of the epidemic		
	Light	Moderate	Heavy
Stock A only	100	300	800
Stock B only	80	250	350
Stock both A & B	20	200	550

Determine the best alternative using each of the criteria discussed in this lesson. Provide a brief discussion of your answer/solution.

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Expert Answer

Namratha answered this
6,319 answers

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	A	B	C	D	E
1	a)Pessimistic				
2		Level			
3		Light	Moderate	Heavy	Minimum
4	A	100	300	800	=MIN(B4:D4)
5	B	80	250	350	=MIN(B5:D5)
6	A&B	20	200	550	=MIN(B6:D6)
7	Among the minimums, A has the maximum. Therefore, choose A				
8	b)Maximax				
9		Level			
10		Light	Moderate	Heavy	Maximum
11	A	100	300	800	=MAX(B11:D11)
12	B	80	250	350	=MAX(B12:D12)
13	A&B	20	200	550	=MAX(B13:D13)
14	Among the maximums, A has the maximum. Therefore, choose A				



1	a)Pessimistic			
2	Level			
3	Light	Moderate	Heavy	Minimum
4	A	100	300	800
5	B	80	250	350
6	A&B	20	200	550
7	Among the minimums, A has the maximum. Therefore, choose A			
8	b)Maximax			
9	Level			
10	Light	Moderate	Heavy	Maximum
11	A	100	300	800
12	B	80	250	350
13	A&B	20	200	550
14	Among the maximums, A has the maximum. Therefore, choose A			

15	A	B	C	D	E
16	c)Minimax regret				
17	Regret Table				
18	States of Nature				
19		Bad	Good	Very Good	Max Regret
20	A	=MAX(\$B11:\$B13)-B11	=MAX(\$C11:\$C13)-C11	=MAX(\$D11:\$D13)-D11	=MAX(B19:D19)
21	B	=MAX(\$B11:\$B13)-B12	=MAX(\$C11:\$C13)-C12	=MAX(\$D11:\$D13)-D12	=MAX(\$B20:D20)
22	C	=MAX(\$B11:\$B13)-B13	=MAX(\$C11:\$C13)-C13	=MAX(\$D11:\$D13)-D13	=MAX(\$B21:D21)
23	Among the maximum regrets, A has the minimum value. Choose A				
24	d) Laplace				
25	Level				
26		Light	Moderate	Heavy	Expected value
27	A	100	300	800	=AVERAGE(\$B26:D26)
28	B	80	250	350	=AVERAGE(\$B27:D27)
29	A&B	20	200	550	=AVERAGE(\$B28:D28)
	A has the highest expected value. Choose A.				

15	A	B	C	D	E	F
16	c)Minimax regret					
17	Regret Table					
18	States of Nature					
19		Bad	Good	Very Good	Max Regret	
20	A	0	0	0	0	
21	B	20	50	450	450	
22	C	80	100	250	250	
23	Among the maximum regrets, A has the minimum value. Choose A					
24	d) Laplace					
25	Level					
26		Light	Moderate	Heavy	Expected value	
27	A	100	300	800	400	
28	B	80	250	350	226.67	
29	A&B	20	200	550	256.67	
	A has the highest expected value. Choose A.					

END

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Q: Problem 3- Hypothesis Testing For the United States, the mean monthly Internet bill is \$32.79 per household (CNBC, January 18, 2006). A sample of 50 households in a southern state showed a sample mean of \$30.63. Use a population standard deviation of \$5.60. a. Formulate hypotheses for a test to determine whether the sample data support the conclusion that the mean monthly Internet...

A: [See answer](#)

Q: Analyze each problem and show your solutions in an orderly manner. 1. Mutual funds for ABC Company have Php500,000 available for one of the three investment alternatives in the stock market: a black-chip stock offering, a growth-stock offering, and a venture-stock offering. The environment of the investment can assume any of the three future events, and ABC has no information about...

A: [See answer](#)



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