

Draw the Decision Table for the following Rules

Q1) Given the hours (hours), and hourly pay rate (rate), the program calculates pay as hours times rate if the values for hours and rate are valid. The program displays the message "Invalid hours" if the value for hours is not between 1 and 40 inclusive. The program displays the message "Invalid rate" if the value for rate is not between 10 and 25 inclusive. The program always checks both the hours and the rate.

Q2) A customer can place an order for a product if the customer's credit status is good and the quantity required is less than or equal to the quantity in stock. If the customer's credit status is not good then the message 'Order declined' is displayed and quantity in stock is not checked. If the quantity required is greater than the quantity in stock then the message 'Insufficient stock is displayed.

Q3) A program receives 4 readings on each single cell. If the infra-red reading is between 50 and 100 inclusive, the ultra-violet reading is between 20 and 60 inclusive, the gamma reading is between 70 and 120 inclusive and the x-ray reading is between 30 and 90 inclusive then the cell is marked as clear. If the infra-red reading is outside 50 and 100 inclusive the cell is marked as infra-red contaminated. If the ultra-violet reading is outside 20 and 60 inclusive the cell is marked as ultra-violet contaminated. If the gamma reading is outside 70 and 120 inclusive the cell is marked as gamma contaminated. If the x-ray reading is outside 30 and 90 inclusive the cell is marked as x-ray contaminated

Q1 Ans

condition	R1	R2	R3	R4
Enter valid hour [1-40]	T	T	F	F
Enter valid rate [1-25]	T	F	T	F
<u>Action</u>				
calculate pay	X			
Error msg "invalid rate"		X		X
Error msg "invalid hour"			X	X

Q2) Ans

condition	R1	R2	R3	R4
customer status is good	T	T	F	F
Enough in stock	T	F	T	F
<u>Action</u>				
place an order	X			
message "order declined"			X	X

Q3 Am

Condition	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆	R ₇	R ₈	R ₉	R ₁₀	R ₁₁	R ₁₂	R ₁₃	R ₁₄	R ₁₅	R ₁₆
infra red between [50-100]	T	T	T	T	T	T	T	T	F	F	F	F	F	F	F	F
Ultra violet [20-60]	T	T	T	T	F	F	F	F	T	T	T					
Gamma [40-120]	T	T	F	F	T	T	F	F	T	T	F					
X-Ray [30-90]	T	F	T	F	T	F	T	F	T	F	T					
Action																
clear	✓															
infra Contaminated										✓	✓	✓				
Ultra "					✓	✓	✓	✓	✓							
gamma "		✓	✓	✓					✓				✓	✓	✓	✓
X-Ray Contaminated		✓		✓		✓		✓		✓		✓				