*Q3 Select the robot for the following application and explain your concept with a hand sketch*

A manufacturing firm, producing chocolates needs robots for the packaging. Each bar of sealed chocolates weighs 250gm with a maximum production speed of 60 chocolates/ minute. Each primary box has 12 bars of chocolate. Final packing box will accommodate 4 of the primary boxes. Box needs to palletized on wooden pallet of 1.2m x 1.2m with maximum stack height of 1m. Consider current system has already conveyors feeding chocolate bars which is 300mm wide and primary boxes are fed on a conveyor 200mm wide that lead to Final Packing zone. The larger box on final packing zone are fed on conveyor which is 500mm wide. List down the areas that can be automated and provide the following details for each stages what you are planning.

Wooden pallet filling

Primary Box conveyor

Box forming machine

Final box conveyor

chocolate bar conveyor

Robot(s) Model:

Reach of the Robot:

Payload of the Robot:

No of Controlled Axis:

Repeatability:

Factors you consider(speed/mounting/safety/protection):

Hand Sketch: