

LAB Final

Time: 2 hours

Marks: 40

Bangladesh Govt. is imposing restrictions on types of movement of citizens to restrict COVID-19. Peoples have to take the “Movement Pass” from their registered police station in mentioned below. People can take the “Movement Pass” from 10am to 6pm in a day.

People arrive according to various arrival rates as follows:

- 150 people in every 15 minutes from 10.00 am to 1.00 pm
- 200 people in every 15 minutes from 2.00 pm to 4.00 pm
- 350 people in every 15 minutes from 5.00 pm to 6.00 pm

At the entry, the guard check their NID card and about 5% of them do not bring their NID card and cannot get permission to enter into the police station and they have to leave the police station area. After that those who enter into police station, one Serjeant takes 3 to 5 minutes to take necessary information from each of them and after that process they find 40% of them are female and rest of them are male. After verifying they have to go through a log entry process. There are two log files inside police station; one for female and it takes about 4 to 5 minutes uniformly and others for male and it takes about 3 to 4 minutes for completing log entry process. About 15% female and 10% male do not show valid reason for taking “Movement Pass”, as they are in emergency case and they are in a hurry. Those who shows valid reason, for them there is a room for providing “Movement Pass”. The “Movement Pass” giving process takes 4 to 6 minutes uniformly. Both female and male have to show their “Movement Pass” while passing out from police station. Emergency service point takes 1.5 to 2.5 minutes uniformly for giving printed token. After getting “Movement Pass” from the Emergency service point, they leave police station. It seems that about 8% people cannot get the “Movement Pass” from the Emergency service point and they have to leave the police station without getting “Movement Pass”.

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Now, Simulate the system for 8 hours with proper animation in each process and find out:

- i. Model Design, Configuration & Animation. (20 + 5 + 5)
- ii. Number of people comes for taking “Movement Pass”. (5)
- iii. Number of people left the police station not having “Movement Pass”. (5)

Rules for uploading file:

In the PDF, give a screenshot of full Model with animations and another screenshot of Outputs.

Rename PDF as ID_LF

SUBMIT ZIP including PDF and all Backup Files

Rename ZIP as ID_Section

In Every Module of Model Diagram in Arena input your ID's last 4 or 5 digit with naming SUCH as: Arrival_9404 or Vaccination_9404 etc. like that

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