Solution of Q1:

1. manufacturing syste. (TV manufacture)

Inputs	materials or substance used in primary production.
Components/Elements	machines , tools and operator
Outputs	Televisions
Enviroment/Boundary	Legal conditions , work hours and required quantity
State	the status of machines (running , paused or off)
Entity	TV requests
attributes	quantity , size , volume and material composition

2. Transportation system. (Train system)

Inputs	Passengers and Goods
Components/Elements	Train , Train tracks , Train driver and Railway station
Outputs	transport
Enviroment/Boundary	Legal speed , Departure and arrival time , number of passengers and the amount of goods
State	number of people waiting at each station
Entity	Passengers and Goods
attributes	Offered services , Gender and age of passenger and weight of goods

3. health-care system. (a clinic)

Inputs	Patients
Components/Elements	Doctors , nurses ,lab tech , medical tools and equipments , beds
Outputs	Helping people , better health and wellness
Enviroment/Boundary	regulations of Ministory of Health
State	the status of doctor (busy or available) , number of patients waiting
Entity	Patients
attributes	Age, gender , weight and blood pressure of patients

4. service system. (call center)

Inputs	Incoming calls
Components/Elements	specialized management and call agents, agents and tecknologies (phone)
Outputs	customer service
Enviroment/Boundary	service duration
State	status of line (busy or idle)
Entity	calls
attributes	Arrival time and service time