PEAS and Environment analysis

Exercise 1 - Medical diagnosis system

1) Performance measure:
    a) accuracy of diagnosis
    b) safety and privacy of the system (no personal data leaks)
    c) legal aspects
    d) comfort of the clients/patients
    e) treatment effectiveness
2) Environment:
    a) patient
    b) hospital
    c) hospital stuff
    d) some medical database
3) Actuators:
    a) screen display (in order to communicate with patients, show questions, tests, diagnosis, referrals etc.)
4) Sensors:
    a) camera (photos & videos for image recognition system)
    b) maybe some socket/port for home blood-test aparature
    c) keyboard - mouse - microphone to allow patient fill some interviews or explain what is the problem

Exercise 2 - Part-picking robot

1) Performance measure:
    a) efficiency - the amount of parts segregated per time unit
    b) accuracy - the percentage of mistakes done during segregation process or smth
    c) minimization of energy consumption and maintenance costs
2) Environment:
    a) factory/warehouse
    b) conveyor belt with parts
    c) bins for different kinds of elements
3) Actuators
    a) robotic arm itself
4) Sensors:
    a) pressure/force sensor (to avoid damages/dents etc.)

b) some location system to take care of appropriate movement in the 3D space
c) elements detector (camera maybe)

Exercise 3 - Interactive English tutor

1) Performance measure:
    a) statistics of students progress, grades etc.
    b) students satisfaction and comfort
    c) minimizing boredom factor (detected from faces or so)
2) Environment:
    a) classroom, library
    b) students
3) Actuators:
    a) speakers
    b) screen
    c) maybe projector
    d) motors to let it move around the classroom
4) Sensors:
    a) microphone
    b) move sensors
    c) camera
    d) keyboard or any other data input mechanism

Exercise 4 - Environments

	chess with clock	chess without clock	taxi driving
Fully observable	Yes	Yes	No
Deterministic	Strategic	Strategic	No
Episodic	No	No	No
Static	Semi	Yes	No
Discrete	Yes	Yes	No
Single agent	No	No	No