

Bilgisayar Mühendisliği

BSM316- Teknik İngilizce Vize Sınavı

Q1- Complete the following paragraph by filling in the blanks with appropriate listing markers. (21p)

Then-3	Next -2	Then-5	Lastly-7	First -1	the next-6	Also-4
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Computers can do wonders, but they can waste a lot of money unless careful consideration goes into buying them. Businessman and woman thinking of buying a computer system should ¹**First** admit they know very little about computers. ²**Next**, they must realize that computer sales people don't always know how their business works.

³**then** it is essential that buyers should get outside advice, not necessarily from consultants but from other executives who have had recent experience in buying a computer system. ⁴**Also** they should try to see systems similar to ones under consideration in operation. Because their operations will have differences that must be accommodated, they should ⁵**then** find out what would be involved in upgrading a system. ⁶**the next** important thing to know before buying a computer is the financial situation of the supplier because computer companies come and go and not all are financially stable. ⁷**lastly** the prospective buyer should demand that every detail be covered in writing, including hardware software if they are supplied by different companies. There's nothing wrong with computers themselves, it's how and why they are used that can cause problem.

Q2. Read this short text, then match each robot type with the appropriate definitions. (10p)

Classification of type of robots

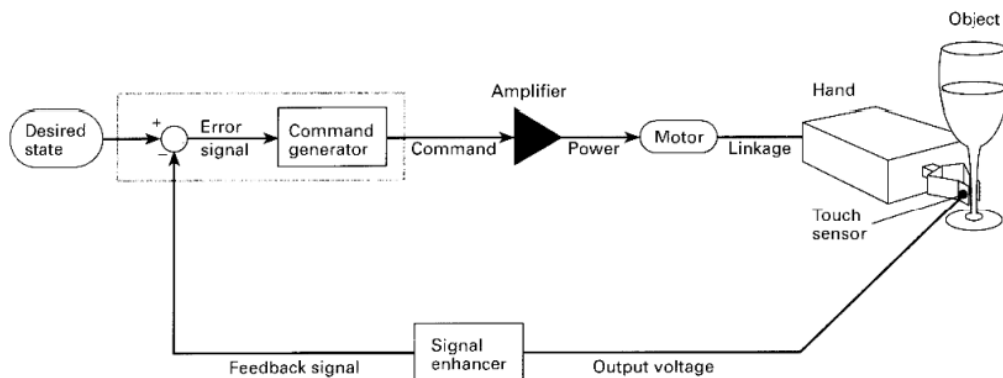
One way of classifying robots is in terms of their similarity to humans. An automaton is any machine capable of operating independently, such as a clothes dryer. A flexible machine is a special case of an automaton with different capabilities, that can be programmed as the need arises. An example is welding robot on the factory floor that can be programmed to participate in other production operations. A mobile robot is a flexible machine capable of moving freely in its own environment. It can partly select its own goals and communicates with other agents, including humans. An android or humanoid is a mobile robot whose structure approximately resembles a human structure. Finally, a cyborg is a humanoid with organic structures. Cyborgs have some psychological structures similar to those of humans.

1- <input type="checkbox"/> Mobile robot- b	a- Machine capable of independent operation following predetermined series of behaviors e.g. a cuckoo clock.
2- <input type="checkbox"/> Cyborg- c	b- flexible machine capable of moving and communicating with humans e.g. a sentry robots
3- <input type="checkbox"/> Automaton - a	c- humanoid having both organic and inorganic structures, with some physiological similarity to humans
4- <input type="checkbox"/> Flexible machine - e	d- mobile robot of human proportions
5- <input type="checkbox"/> Android/humanoid- d	e- versatile, programmable automaton e.g. an assembly robot

Q3- According to the text above, now renumber the robot types, 1-5 (1=most similar to humans; 5= simplest) (10p)

1- <input type="checkbox"/>	Mobile robot -3
2- <input type="checkbox"/>	Cyborg -1
3- <input type="checkbox"/>	Automaton -5
4- <input type="checkbox"/>	Flexible machine -4
5- <input type="checkbox"/>	Android/humanoid -2

Q4- Using the diagram to help you, fill in the gaps in the text with the words given. (35p)



Co-ordination of control in robots

The diagram shows a ¹ _____ system for the force required to ² _____ an object. The desired level of force is fed into the control module, which ³ _____ it with the actual amount of force as indicated by the feedback signal. The discrepancy enters the command generator, which determines the ⁴ _____ and extent of adjustment necessary. The resulting command passes into an amplifier which produces power ⁵ _____ to the level of input signal. The power drives a motor ⁶ _____ to some linkage such as a set of gears. The mechanical linkage in the robotic hand ultimately ⁷ _____ the initial command signal into displacement at the fingertips.

Proportional- 5	Grasp-2	Direction-4	Compares- 3	Attached-6	Converts-7	Closed-loop- 1
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(Words meanings: **Discrepancy**= a difference between two things that should be the same , **Amplifier**= a piece of electronic equipment that makes sounds louder, **Linkage**= the existence or forming of connections between things, **Grasp**= to quickly take something in your hand(s) and hold it firmly, **Proportional**= corresponding in size or amount to something else)

Q5- Match words 1-8 to words a-h with a similar meaning. (24p)

1- Cable -d	a- Push
2- Plug (into) -c	b- Put (into)
3- Insert -b	c- Connect
4- Power socket - f	d- Connector
5- Turn on -g	e- Turn off
6- Press -a	f- Electricity socket
7- Unplug -h	g- Switch on
8- Switch off -e	h- Disconnect

