



باسمه تعالی

دانشگاه آزاد اسلامی واحد تهران مرکز

اداره امتحانات



شماره صندلی:

سؤالات امتحانی پایان ترم نیمسال دوم 93-94

رشته:

شماره دانشجویی:

نام و نام خانوادگی:

زمان: 70 دقیقه

تاریخ امتحان: 1394/3/30

نام استاد: کلیه اساتید

نام درس: زبان خارجی انگلیسی

استفاده از ماشین حساب و جزوه ممنوع است.

پاسخ سوالات در برگه سوالات

تعداد صفحه سوالات: 5

استاندارت در سایت sta.iauetb.ac.ir اعلام خواهد شد و دانشجویان جهت مشاهده نمرات و اعتراض به این سایت مراجعه نمایند.

ردیف:

IN THE NAME OF GOD
English for the Students of Engineering
Final Exam, Spring 1394

Student's Name:

Allotted Time: 70 Minutes

I. - Match the underlined words with their synonym words in the following table.

<u>making</u>	<u>impact</u>	<u>feat</u>	<u>consume</u>	<u>many</u>
<u>interpret</u>	<u>benefits</u>	<u>tools</u>	<u>tangible</u>	<u>novelties</u>

- Falling export rates had a big influence on the country's economy. *impact*
- Her explanations were not real and observable to us. *tangible*
- It is an amazing achievement to do such a difficult work. *feat*
- It is difficult to understand these statistics. *interpret*
- The terms "mechatronic system" encompasses a myriad of devices and systems. *many*
- The technology revolution, like the Industrial Revolution, has changed the economy, creating new industries and ways of doing business. *novelties*
- Modern cars do not use so much fuel. *consume*
- During the Industrial Revolution there were many principal innovations. *novelties*
- Polymers composites have many advantages over other materials. *benefits*
- More commonly you hear mechatronic systems referred to as smart devices. *tools*

II. Fill in the blanks using the words given in the following table.

<u>dramatic</u>	<u>empty</u>	<u>trends</u>	<u>comprise</u>	<u>requires</u>
<u>constituents</u>	<u>structural</u>	<u>interdisciplinary</u>	<u>utopian</u>	<u>developed</u>

- Resin and fibers are the constituents of polymer composites.
- Materials used for the fibers comprise glass and carbon.
- Thermoset materials are used to impregnate the empty spaces between the fibers.
- Making a qualified robot requires an enormous amount of data.
- Mechatronic is a/an interdisciplinary field of engineering.
- Competition in many industries has trends all over the world in just a few years.
- We are living in revolutionary times, a revolution brought on by dramatic advances in information technology.
- Most changes are not mere trends but the result of large, unruly forces which have a lasting effect on the world economy.
- The fibers, also known as the reinforcing phase, carry the structural load.

VII. Translate the following sentences into Persian.

Now, we are witnessing a new scientific and social revolution known as the Information Revolution, where engineering specialization ironically seems to be simultaneously focusing and diversifying.

Many manufacturers of consumer products need constantly to look for opportunities to reduce costs and improve efficiency. At the same time, however, they need to constantly innovate and renew their product and service offerings.

Good Luck!

Composition processing models are built on the foundation of physical laws. Once the model is well posed in the mathematical equations, the next step is to examine the behavior of the model in response to changes in the process and material variables. This information can prove to be very useful to design a mold or a die for the manufacturing method or to alter the manufacturing process to create a successful part. To investigate the behavior of a composite manufacturing process in a routine manner with minimum effort, the process model can be incorporated into a computer simulation. This simulation can provide valuable and detailed information about the process and exclude false information from the process of decision making.

3. Why do we incorporate the process model into a computer simulation?
- a) to pose the model in the mathematical equations
 - b) to design a mold or die
 - c) to investigate the behavior the manufacturing process in a routine manner with minimum effort
 - d) to examine the physical laws
4. The term "exclude" used in line 8 is closest in meaning to
- a) to prevent something from continuing
 - b) to bar from participation or consideration
 - c) to conform
 - d) to store

VI. Put the following sentences in the right order to form a comprehensive paragraph. Write the corresponding letters in the boxes provided.

- a) Information alone is not enough to produce knowledge.
- b) Knowledge builds over time in the heads of employees in the form of past decisions, processes in the organization, characteristics of products, interests of customers, and similar experiences.
- c) We can define knowledge as "information plus know-how".
- d) We must also understand the best way to use information to solve a problem, contribute to a product or service, or make similar contribution to the organization.
- e) Knowledge is a strategic resource for many organizations.

e	c	a	d	b
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- f) The technology revolution, like the Industrial Revolution, has changed the economy, creating new industries and ways of doing business. *novelties*
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- g) We are living in revolutionary times, a revolution brought on by dramatic advances in information technology.
- h) Most changes are not mere trends but the result of large, unruly forces which have a lasting effect on the world economy.
- i) The fibers, also known as the reinforcing phase, carry the structural load.
- j) Poets and utopian writers are the true creators of the term "robot".

III. Fill in the blanks using the words given in the following table.

include	appliances	brake	systems
term	machines	monitoring	injection

Today, there are very few mechanical devices that do not include electrical components and some type of computer monitor or control. Therefore, the term "mechatronic system" encompasses a myriad of devices and systems. Increasingly, digital circuits and microprocessors are embedded in electromechanical devices, creating much more flexibility and control possibilities in system design. Examples of mechatronic systems include an aircraft flight control and navigation system, automobile electronic fuel injection and antilock brake systems, automated manufacturing equipment such as robots and numerically-controlled machine tools, smart kitchen and home appliances such as bread machines and washing machines, and even toys.

IV. Choose the best word to complete each sentence.

- Additives are added to a matrix to change shrinkage, shrinkage, and mechanical and optical properties.
a) processed
 b) processibility
c) process
d) processable
- Reinforced materials provide much different properties than the base resin.
a) Reinforcing
b) Reinforce
 c) Reinforced
d) Reinforcedly
- Some particular manufacturing activities cannot be carried out competitively any longer.
a) competitive
b) to compete
c) competition
 d) competitively
- Electronic linking of companies creates efficient environments.
a) creation
 b) create
c) creative
 d) creates

5. Information processing is handled to minimize the use of paper.

- a) electronics
- ✓ b) electronically
- c) electronic
- d) electric

6. Cognitive robots sense, model, plan, and act goals without human intervention.

- a) achievement
- ✓ b) to achieve
- c) achievable
- ✓ d) achieve

7. In their efforts to arrive at a suitable advantage, managers differentiate between core and non-core activities.

- a) to compete
- b) competition
- ✓ c) competitive
- d) competitively

8. Mechatronic includes the development and of intelligent sensors, actuators, microsystems, and advanced controls.

- a) integrated
- ✓ b) integration
- c) integrate
- d) to integrate

V. Choose the best answer according to the passages.

Competition in many industries has intensified all over the world in just a few years. The reason why this has happened is mostly because of the more sophisticated information and communications technology which has become available. This enables people and organizations to overcome the barriers of physical distance. It is assumed that modern information technology will challenge and redefine commonly accepted notions of geographic nations, companies, industries, and communities. It will make traditional borders obsolete. Thus, the world increasingly will become one "global" village.

1. Getting more sophisticated information has intensified

- a) the technology used in companies.
- ✓ b) the competition in many industries.
- c) the power of physical barriers.
- d) the use of traditional technologies.

2. The term "obsolete" used in line 6 is closest in meaning to

- a) famous
- b) in use
- ✓ c) no longer in use
- d) no longer inactive

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100

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