



سری سوال : یک ۱

زمان آزمون (دقیقه): تستی : ۶۰ تشریحی : ۶۰

تعداد سوالات : تستی : ۱۵ تشریحی : ۳

عنوان درس : زبان تخصصی

رشته تحصیلی / کد درس : مهندسی برق - گرایش الکترونیک، مهندسی برق - گرایش قدرت، مهندسی برق - گرایش کنترل، مهندسی برق - گرایش مخابرات ۱۳۱۹۰۲۴ - ، مهندسی رباتیک ۱۵۱۱۰۶۷

1- Science related to the behavior of electrons in devices is called electronics. "devices" means.....

1. tools                      2. areas                      3. designs                      4. fields

2- Fuses and circuit breakers can .....the current path if too much current flows.

1. interruption              2. interrupted              3. interrupts              4. interrupt

3- According to the situation the switch acts .....

1. automate                  2. automation                  3. automatic                  4. automatically

4- The electron jumps to the conduction band ..... a vacancy.

1. because                      2. in spite of                      3. because of                      4. despite

5- The BJT is used as a linear amplifier to boost or amplify an electrical signal and as an electronic switch. boost means.....

1. become weak                      2. increase the power  
3. reject the wave                      4. show a picture

6- In electronics, ..... are a common way of giving information. They allow a great deal of data to be presented in visual form.

1. graphs                      2. vehicles                      3. branches                      4. gates

7- Isolation between transistors often is not adequate. adequate means.....

1. difficult                      2. common                      3. sufficient                      4. attractive

8- Circuits that handle only high and low signals are called digital circuits. handle means.....

1. damage                      2. control                      3. send                      4. receive

9- When the power is switched on, the circuit switches to one of the stable states and it is not possible to predict the state. predict means.....

1. change                      2. move                      3. illustrate                      4. anticipate

10- Packaging serves several purposes, including protecting the chip from chemical contamination. contamination means.....

1. industrialization              2. pollution                      3. sources                      4. materials

11- 'TTL' is the short form or a(n) ..... which stands for Transistor-Transistor Logic.

1. prediction                      2. association                      3. abbreviation                      4. protection



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12-A considerable decrease in the power required to implement a given function. implement means.....

1. carry out                      2. take about                      3. look at                      4. pay back

13-Today, ICs are fabricated in large volumes and in different types. fabricate means.....

1. detect                      2. make                      3. destruct                      4. manage

14-Some of the basic functions performed by the various registers are essentially identical. identical means.....

1. the same                      2. the most                      3. different                      4. large

15-Iranian nuclear power plant in Buser is still under .....

1. construct                      2. construction                      3. constructive                      4. constructively

### سوالات تشریحی

16-Translate the following texts into fluent Persian : The basic operation of the light-emitting diode(LED) is as follows.when the device is forward-biased,electrons cross the pn junction from the n-type material and recombine with holes in the p-type material.These free electrons are in the conduction band and at higher energy than the holes in the valance band.when recombination takes place,the recombination electrons release

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17-To illustrate transistor action,let's examine what happens inside the npn transistor.The forward bias from base to emitter narrows the BE depletion region, and the reverse bias from base to collector widens the BC depletion region.The heavily doped n-type emitter region is teeming with conduction-band(free) electrons.

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18-The biasing of a transistor is purely a dc operation.The purpose of biasing is to establish a Q-point about which variations in current and voltage can occure in response to an ac input signal. In application where small signal voltage must be amplified variations about the Q-point are relatively small.

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