

English exam for Electric engineering

Full name: .....

Group: .....

**Part one: choose the correct answers.(08pts)**

**01 - The jack is**

- a) A kind of conductive wire.
- b) A sound recording device.
- c) An electric socket fixed on the wall.

**02 - A thermocouple is**

- a) A high speed transmission cable.
- b) A thin metal wire that produces light.
- c) A device for measuring temperature.

**03 - The relay controls high voltage circuits by**

- a) Cutting the electric circuit.
- b) Switching off the electric circuit.
- c) Switching on the electric circuit.

**04 – A current breaker that melts if the current exceeds a particular level is called**

- a) A filament
- b) A jumper
- c) Fuse.

**05 – Transformers at utility substation**

- a) Increase the voltage.
- b) Decrease the voltage.
- c) Sep down the voltage.

**06 – How do we call the place where electricity is generated?**

- a) Electric plant.
- b) Electric utility power station.
- c) Electric station.
- d) Electric industry .

**07-The USA uses coal as a fundamental source of energy because**

- a) It is less expensive.
- b) It is quicker.
- c) It is less polluting.

**08-A device used to detect the direction of small electric current and measure its strength.**

- a) Diaphragm
- b) Capacitor
- c) Galvanometer.

***Part two: fill in the gaps with the following words: ( 02pts) produce /steam turbines/ blades/ forced / generator / kinetic energy / electricity / mechanical***

*Most of the .....in the United States is produced in ..... A turbine converts the ..... of a moving fluid (liquid or gas) to..... energy .Steam turbines have a series of .....mounted on a shaft against which steam is ..... and the shaft is connected to a .....The fuel is burned in a furnace to heat water in a boiler in order to ..... steam .*

**Part three: look at the following circuits and answer the questions.(04pts)**

**1) Show the direction of the electric current on the two circuits.**

**02) How are the components connected in the series circuit?**

.....  
.....  
.....

**03) How are the components connected in the parallel circuit?**

.....  
.....  
.....

**Part four: answer the following. (06pts)**

**01) What is a passive component? (Give one example)**

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.....

**02) What is an active component? (Give one example)**

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.....  
.....

**03) What is an electric current?**

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.....  
.....

**04) How do we transport electricity?**

.....  
.....  
.....

**05) What is the flow direction of any electric current?**

.....  
.....  
.....

**GOOD LUCK  
AOUCHE.S**

Correction of the English exam for Electric engineering

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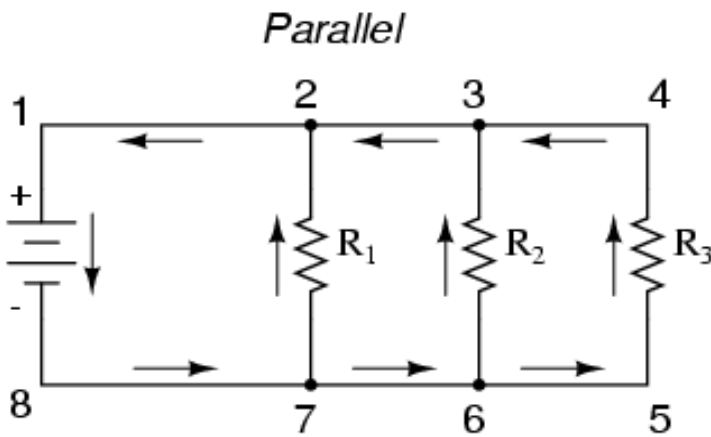
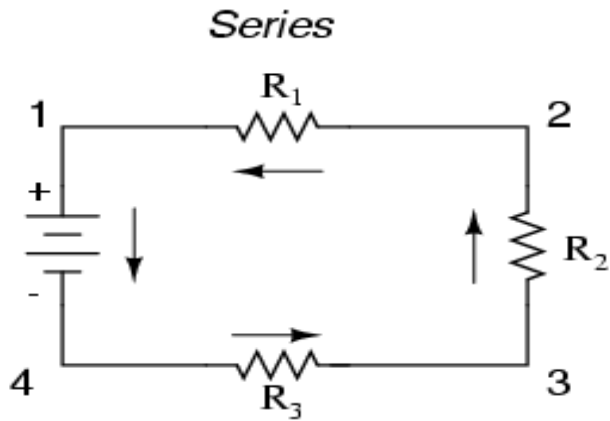
a) Diaphragm

b) Capacitor

**c) Galvanometer.**

***Part two: fill in the gaps with the following words: ( 02pts) produce /steam turbines/ blades/ forced / generator / kinetic energy / electricity / mechanical***

*Most of the **electricity** in the United States is produced in **steam turbines**. A turbine converts the **kinetic energy** of a moving fluid (liquid or gas) to **mechanical** energy .Steam turbines have a series of **blades** mounted on a shaft against which steam is **forced** and the shaft is connected to a **generator**. The fuel is burned in a furnace to heat water in a boiler in order to **produce** steam.*



**Part three: look at the following circuits and answer the questions.(04pts)**

1) Show the direction of the electric current on the two circuits.

02) How are the components connected in the series circuit?

*With simple series circuits, all components are connected end-to-end to form only one path for electrons to flow through the circuit*

03) How are the components connected in the parallel circuit?

*With simple parallel circuits, all components are connected between the same two sets of electrically common points, creating multiple paths for electrons to flow from one end of the battery to the other:*

**Part four: answer the following. (06pts)**

**01) What is a passive component? (Give one example)**

***Can't introduce net energy into the circuit. It also can't rely on a source of power, except for what is available from the (AC) circuit they are connected to such as capacitors.***

**02) What is an active component? (Give one example)**

***Rely on a source of energy and usually can inject power into a circuit  
Active components include amplifying components such as transistors.***

**03) What is an electric current?**

***It is the flow of microscopic particles called electrons flowing through wires and components.***

**04) How do we transport electricity?**

***The electricity is transported from the electric power plant to the substation through cables using high voltage electricity.***

**05) What is the flow direction of any electric current?**

***The current flows from the negative to the positive terminal of a cell.***