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**Technical English Test**

**Exercise 1:**

Filling the blanks using the appropriate following prepositions (note: some of these prepositions can be used more than one time)

From, in, to, with, through, but, across, of, on, However.

The capacitor is a component which has the ability or “capacity” ***to*** store energy ***in*** the form of an electrical charge producing a potential difference (*Static Voltage*) across its plates, much like a small rechargeable battery.

There are many different kinds of capacitors available ***from*** very small capacitor beads used in resonance circuits to large power factor correction capacitors, but they all do the same thing, they store charge.

In its basic form, a capacitor consists of two or more parallel conductive (metal) plates which are not connected or touching each other, ***but*** are electrically separated either by air or by some form of a good insulating material such as waxed paper, mica, ceramic, plastic or some form of a liquid gel as used in electrolytic capacitors. The insulating layer between a capacitors plates is commonly called the Dielectric.

Due to this insulating layer, DC current can not flow ***through*** the capacitor as it blocks it allowing instead a voltage to be present across the plates in the form of an electrical charge.

The conductive metal plates of a capacitor can be either square, circular or rectangular, or they can be of a cylindrical or spherical shape ***with*** the general shape, size and construction of a parallel plate capacitor depending on its application and voltage rating.

When used in a direct current or DC circuit, a capacitor charges up to its supply voltage but blocks the flow of current through it because the dielectric of a capacitor is non-conductive and basically an insulator. ***However*** when a capacitor is connected to an alternating current or AC circuit, the flow of the current appears to pass straight ***through*** the capacitor with little or no resistance.

There are two types of electrical charge, a positive charge in the form of Protons and a negative charge in the form of Electrons. When a DC voltage is placed ***across*** a capacitor, the positive (+ve) charge quickly accumulates ***on*** one plate while a corresponding and opposite negative (-ve) charge accumulates on the other plate. For every particle of +ve charge that arrives at one plate a charge ***of*** the same sign will depart from the -ve plate.

**Exercice2:**

Fill in the correct passive form of the verb**.**

1. Aluminium ***is made*** out of bauxite. **(MAKE)**

2. The books ***have not been published*** yet. **(NOT PUBLISH)**

3. As soon as I got home, I realized that my wallet ***had been stolen***. **(STEAL)**

4. Dinner ***is served*** between 5 and 10 p.m. every day. **(SERVE)**

5. No letters ***have been delivered*** since the start of the strike. **(DELIVER)**

6. The building ***was being torn*** torn down when we got there **(BE).**

7. Progress in many fields of science ***has been made*** in the last decade. **(MAKE)**

8. Since last week 5 of the 7 terrorists ***have been caught*. (CATCH)**

9. Taxes ***will be increased*** by the new government next month. **(INCREASE)**

10. The classroom ***is being redecorated*** next week**. (REDECORATE)**

**Exercice3:**Fill in the blanks. Using the following words.

Therefore, owing to, effect, arises, triggered (off), spark (off), outcome, spin-off, stemmed, bring about.

1. Ceramics are well-suited to resisting heat ***owing to*** the strong chemical bonds that hold them together.

2. The molecules move less and ***therefore*** take up less space.

3. The new laws will inevitably ***spin off*** a controversy.

4. To a certain extent, Freud's theor ***stemmed*** from his observations of dreams.

5. Theoretical research into lasers has had considerable ***spark*** for eye surgery.

6. The disease ***arises*** from a developmental failure in the brain.

7*.* Before the discovery of antiseptics, the ***outcome*** of surgical operations was very often fatal.

8. It was the development of more advanced stone tools that ***triggered*** the first human migration out of Africa, 1.7 million years ago.

9. Unless it is checked in some way, the virus will ultimately ***bring about*** the death of the host cells.

10. The current rate of deforestation is having a direct ***effect*** on wildlife.

**Exercice4:**

First match the sentence with the definition and then insert the appropriate

particles:forward • through • up • on • down • away • off • out.

1. He opened the letter and **threw *away*** the envelope.

2. Have you got time to **look *though*** my essay before I hand it in?

3. At the end of the meeting, William put ***out*** a new suggestion.

4. Due to the force of gravity, the space vehicle **speeds *up*** as it approaches the planet.

5. They **carried on** talking for at least half an hour after he had left.

6. As the speed of the molecules decreases, the gas **cools *down.***

7. His hand-writing is terrible. It is difficult to **make *off*** what he has written.

8. I am not free for the appointment on Friday. We must **Put *forward*** it till the following week.

a. to propose

b. to distinguish

c. to get rid of

d. to cancel / delay

e. to continue

f. to check/examine

g. to lose heat

h. to accelerate