

Q.1) Consider the following statements

1. 'Xenotransplantation' is transplantation from one species to another
2. 'Allotransplantation' is transplantation between members of the same species

Select the correct statements

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.1) Solution (c)

Xenotransplantation is the transplantation of living cells, tissues or organs from one species to another. Such cells, tissues or organs are called xenografts or xenotransplants. It is contrasted with allotransplantation (from other individual of same species), Syngeneic transplantation (Grafts transplanted between two genetically identical individuals of the same species) and Autotransplantation (from one part of the body to another in the same person).

Source: <https://www.theguardian.com/science/2017/aug/10/gene-editing-to-remove-viruses-brings-transplant-organs-from-pigs-a-step-closer>

Q.2) Why are pigs considered the most suitable species as a source of material for xenotransplantation?

- a) Their organs are similar in size to those of humans
- b) The risk that they will carry pathogens that can infect humans is smaller than with nonhuman primates
- c) Both (a) and (b)
- d) Neither (a) nor (b)

Q.2) Solution (c)

Pigs are considered the most suitable species as a source of material for xenotransplantation for several reasons:

- they reproduce quickly and have large litters;
- their organs are similar in size to those of humans;

- they are easy to rear in conditions free of particular pathogens (disease-causing organisms);
- the risk that they will carry pathogens that can infect humans is smaller than with nonhuman primates (apes and monkeys); and
- they can be genetically manipulated to reduce the risk of rejection.

Q.3) Consider the following statements about Anti-dumping duty

1. The Department of Commerce recommends the anti-dumping duty, while Ministry of Finance levies such duty
2. It is imposed on both exports and imports
3. The use of anti-dumping is not permitted by the WTO

Select the correct statements

- a) Only 1
- b) 1 and 2
- c) 1 and 3
- d) All of the above

Q.3) Solution (a)

Dumping is said to occur when the goods are exported by a country to another country at a price lower than its normal value. This is an unfair trade practice which can have a distortive effect on international trade. Anti-dumping is a measure to rectify the situation arising out of the dumping of goods and its trade distortive effect. Thus, the purpose of anti-dumping duty is to rectify the trade distortive effect of dumping and re-establish fair trade. The use of anti-dumping measure as an instrument of fair competition is permitted by the WTO. In fact, anti-dumping is an instrument for ensuring fair trade and is not a measure of protection per se for the domestic industry. It provides relief to the domestic industry against the injury caused by dumping.

Anti-dumping duty is recommended by Ministry of Commerce and imposed by Ministry of Finance.

Source: <http://www.thehindubusinessline.com/news/antidumping-levy-on-opal-glassware-from-china-uae/article9816407.ece>

Q.4) The Quantum Experiments at Space Scale/QUESS, the world's first quantum satellite, was launched by

- a) National Aeronautics and Space Administration (NASA)
- b) European Space Agency (ESA)
- c) Russian Federal Space Agency (RFSA or Roscosmos)
- d) None of the above

Q.4) Solution (d)

China has launched the world's first satellite dedicated to testing the fundamentals of quantum communication in space.

QUESS is designed to establish 'hack-proof' quantum communications by transmitting uncrackable keys from space to the ground.

Quantum communication boasts ultra-high security as a quantum photon can neither be separated nor duplicated. It is hence impossible to wiretap, intercept or crack the information transmitted through it.

It is nicknamed 'Micius', after a 5th century BC Chinese philosopher and scientist who has been credited as the first one in human history conducting optical experiments.

Source: <http://indianexpress.com/article/technology/tech-news-technology/chinas-quantum-satellite-just-sent-back-unbreakable-code-from-space-4792223/>

Q.5) An overvalued exchange rate

1. Can cause deflationary pressures in a recession
2. Means the country's exports will be relatively expensive and imports cheaper

Select the correct statements

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.5) Solution (c)

August 14, 2017

An overvalued exchange rate implies that a country's currency is too high for the state of the economy. An overvalued exchange rate means that the country's exports will be relatively expensive and imports cheaper. An overvalued exchange rate tends to depress domestic demand and encourage spending on imports.

An overvalued exchange rate can also be measured by looking at purchasing power parity (PPP). An overvalued exchange rate will mean goods are relatively more expensive in that country.

An overvalued exchange rate is particularly a problem during a period of sluggish growth. If the economy is booming, an overvalued exchange rate can help reduce inflationary pressure, but in a recession an overvalued exchange rate can cause deflationary pressures.

In 2011, both Switzerland and Japan have witnessed an appreciation in their currency. This appreciation occurred because investors are worried over finding secure investments in a period of economic uncertainty. However, because the global economy remains depressed (slow growth, high unemployment), this appreciation is unwelcome. It makes it more difficult to export goods and can lead to lower growth. For an economy like Japan which relies on a strong export sector, this decline in competitiveness could be very damaging for the country's economy.

This is why both Switzerland and Japan have sought to intervene to try and reduce the value of their currency. Recently China also devalued their currency.

In a period of global economic stagnation, we often see countries trying to devalue their currency to boost their exports. This is known as competitive devaluation.

Source: <http://www.livemint.com/Opinion/lwsgmu6mlxf1eo0AYABdml/A-strong-rupee-hurts-the-economy.html>

