

# MMLU Examples

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## Astronomy

**What is true for a type-Ia supernova?**

- A. This type occurs in binary systems.
- B. This type occurs in young galaxies.
- C. This type produces gamma-ray bursts.
- D. This type produces high amounts of X-rays.

Answer: A

## High School Biology

**In a population of giraffes, an environmental change occurs that favors individuals that are tallest. As a result, more of the taller individuals are able to obtain nutrients and survive to pass along their genetic information. This is an example of**

- A. directional selection.
- B. stabilizing selection.
- C. sexual selection.
- D. disruptive selection

Answer: A

**"Hydrangea flowers have one gene for flower color. Plants of the same genetic variety have flowers that range in color from blue to pink with the color varying due to the type of soil in which they are grown. Which of the following statements best explains this phenomenon?**

- A. The alleles for flower color show incomplete dominance where neither trait is dominant; expression of the genes shows a blending of traits.
- B. The alleles for flower color are codominant; both traits show depending on the environment.
- C. In this case, the environment alters the expression of a trait.
- D. The genes for flower color show polygenic inheritance.

Answer: C

**"Which of the following cells is most closely associated with phagocytosis?"**

- A. Neutrophils
- B. Plasma cells
- C. B cells
- D. Memory cells

Answer: A

## High School Microeconomics

**A production possibility frontier will be a straight line when**

- A. efficiency is achieved
- B. the goods on the axes are perfect substitutes in consumption
- C. utility is maximized
- D. resources are not specialized

Answer: D

**When the cross-price elasticity of demand is negative, the goods in question are necessarily**

- A. normal
- B. inferior
- C. complements
- D. substitutes

Answer: C

## Sociology

**If a deviant act is 'normalized', it is:**

- A. recognised as breaking an important norm of behaviour
- B. seen as a temporary aberration from an otherwise 'normal' character
- C. the first step in establishing a deviant career
- D. attributed to the person's genetic or anatomical make up

Answer: B

**The shift from custodial to joint parenthood after divorce means that:**

- A. fathers are more likely to be absent from their children's lives
- B. one parent has total responsibility for the child's welfare and socialization
- C. both parents are expected to co-operate in the continued care of their children
- D. parents must provide for all of their children in equal measure

Answer: C

## World History

This question refers to the following information.

The invaders had brought in wheat and other Eurasian and African grains; peach, pear, orange, and lemon trees; chick-peas, grape vines, melons, onions, radishes, and much more. A Spanish nobleman come to America could require his Indians to furnish his table with the fruits of his ancestors.

What was the impact of this process on Europe?

- A. The population increased due to the increased diversity of crops.
- B. The population declined as a result of imported disease.
- C. The population increased due to New World immigrants.
- D. The population declined because of famine caused by the mass export of crops.

Answer: A

This question refers to the following information.\n\nThe city of Ghana consists of two towns. One is inhabited by Muslims and has twelve mosques, salaried imams and muezzins, and jurists and scholars. In the environs are wells with sweet water, from which they drink and with which they grow vegetables. . . . The king's interpreters, the official in charge of his treasury and the majority of his ministers are Muslims. Only royalty may wear sewn clothes. All other people wear robes of cotton, silk, or brocade, according to their means. . . . The king adorns himself like a woman, wearing necklaces round his neck and bracelets on his forearms. . . . He sits . . . in a domed pavilion around which stand ten horses. When people who profess the same religion as the king approach him they fall on their knees and sprinkle dust on their heads, for this is their way of greeting him. As for the Muslims, they greet him only by clapping their hands. [The people's] religion is paganism and the worship of idols. . . . On every donkey-load of salt when it is brought into the country their king levies one golden dinar, and two dinars when it is sent out. From a load of copper the king's due is five mithqals, and from a load of other goods ten mithqals. . . . The nuggets found in all the mines of his country are reserved for the king, only this gold dust being left for the people. But for this the people would accumulate gold until it lost its value. Beyond this country lies another called Malal, the king of which was sincerely attached to Islam, while the common people of his kingdom remained polytheists. Since then their rulers have been given the title of al-musulmani .  
2014 The Book of Routes and Realms, by Abu Ubaydallah al-Bakri, eleventh-century Muslim historian and geographer

According to the passage, which statement below correctly describes the economy of Ghana?

- A. The king of Ghana's subjects are engaged in salt mining.
- B. The Ghanians raised cattle for meat and hides.
- C. The king of Ghana taxed salt and copper imports and exports.
- D. The Ghanians had a self-sufficient farming economy.

Answer: C

## Philosophy

**Nagel claims that most skeptical arguments:**

- A. are the result of applying arbitrarily stringent standards.
- B. are based on linguistic confusions.
- C. are logically self-refuting.
- D. grow from the consistent application of ordinary standards.

Answer: D

**Rawls conceives of the original contract as one to:**

- A. enter a particular society.
- B. set up a particular form of government.
- C. establish the principles of justice for the basic structure of society.
- D. establish the content of morality.

Answer: C