## Passage 1: American Broadcasting Company

The American Broadcasting Company (ABC) (stylized in its logo as abc since 1957) is an American commercial broadcast television network that is owned by the Disney–ABC Television Group, a subsidiary of Disney Media Networks division of The Walt Disney Company. The network is part of the Big Three television networks. The network is headquartered on Columbus Avenue and West 66th Street in Manhattan, with additional major offices and production facilities in New York City, Los Angeles and Burbank, California.

#### Questions

- Q1. What company owns the American Broadcasting Company?
- Q2. In what year did ABC stylize it's logo as abc?
- Q3. In what borough of New York City is ABC headquartered?
- Q4. On what streets is the ABC headquarters located
- Q5. Disney-ABC Television Group is a subsidiary of what division of the Walt Disney Company?

## Passage 2: Amazon Rainforest

The Amazon rainforest, also known in English as Amazonia or the Amazon Jungle, is a moist broadleafed forest that covers most of the Amazon basin of South America. This basin encompasses 7,000,000 square kilometer, of which 5,500,000 square kilometer are covered by the rainforest. The Amazon Rainforest includes territory belonging to nine nations. The majority of the forest is contained within Brazil with 60 percent of the rainforest, followed by Peru with 13 percent, Colombia with 10 percent, and with minor amounts in Venezuela, Ecuador, Bolivia, Guyana, Suriname and French Guiana. States or departments in four nations contain the word, Amazonas, in their name. The Amazon represents over half of the planet's remaining rainforests, and comprises of the largest and most biodiverse tract of tropical rainforest in the world, with an estimated 390 billion individual trees divided into 16,000 species.

- Q1. Which name is also used to describe the Amazon rainforest in English?
- Q2. How many square kilometers of rainforest is covered in the basin?
- Q3. How many nations control this region in total?
- Q4. How many nations contain "Amazonas" in their names?
- Q5. What percentage does the Amazon represents in rainforests on the planet?
- Q6. What rainforest covers the majority of the Amazon basin in South America?
- Q7. In what country can most of the Amazon rainforest be found?
- Q8. The Amazon rainforest makes up what amount of Earth's rainforests?

- Q9. How many species of trees can be found in the Amazon rainforest?
- Q10. What kind of forest is the Amazon rainforest?
- Q11. How many square kilometers is the Amazon Basin?
- Q12. How many nations are within the Amazon Basin?
- Q13. Which nation contains the majority of the amazon forest?
- Q14. What is the estimate for the amount of tree species in the amazon tropical rain forest?

## Passage 3: The Apollo Program

The Apollo program, also known as Project Apollo, was the third United States human spaceflight program carried out by the National\_Aeronautics\_and\_Space\_Administration (NASA), which accomplished landing the first humans on the Moon from 1969 to 1972. First conceived during Dwight D Eisenhower's administration as a three-man spacecraft to follow the one-man Project Mercury, which put the first Americans in space, Apollo was later dedicated to president John F Kennedy's national goal of 'landing a man on the Moon and returning him safely to the Earth' by the end of the 1960s, which John F Kennedy proposed in an address to Congress in May 25 1961. Project Mercury was followed by the two-man Project Gemini (1962 – 1966). The first manned flight of Apollo was in 1968.

#### Questions

- Q1. What project put the first Americans into space?
- Q2. What program was created to carry out these projects and missions?
- Q3. What year did the first manned Apollo flight occur?
- Q4. What President is credited with the original notion of putting Americans in space?
- Q5. How many people were on the project that followed Project Mercury?

## Passage 4: Chloroplasts

Chloroplasts's main role is to conduct photosynthesis, where the photosynthetic pigment, chlorophyll, captures the energy from sunlight and converts the energy, and stores the energy in the energy-storage molecules, ATP and NADPH, while freeing oxygen from water. Chloroplasts then use the ATP and NADPH to make organic molecules from carbon dioxide in a process known as the Calvin Cycle. Chloroplasts carry out a number of functions, like fatty acid synthesis, amino acid synthesis, and the immune response in plants. The number of chloroplasts, per cell, varies from 1 in algae, up to 100 in plants such as Arabidopsis and wheat.

# Questions

Q1. What is the primary purpose of chloroplasts?

- Q2. What does ATP store?
- Q3. What does NADPH store?
- Q4. What is the process of turning CO2 into organic molecules called?
- Q5. How many chloroplasts per cell does algae have?

## Passage 5: Computational complexity Theory

Computational complexity theory is a branch of the theory of computation in theoretical computer science that focuses on classifying computational problems according to their inherent difficulty, and relating those classes to each other. A computational problem is understood to be a task that is in principle amenable to being solved by a computer, which is equivalent to stating that the problem may be solved by mechanical application of mathematical steps, such as an algorithm.

#### Questions

- Q1. What branch of theoretical computer science deals with broadly classifying computational problems by difficulty and class of relationship?
- Q2. By what main attribute are computational problems classified utilizing computational complexity theory?
- Q3. What is the term for a task that generally lends itself to being solved by a computer?

## Passage 6: Ctenophora

Ctenophora, commonly known as comb jellies, is a phylum of animals that live in marine waters worldwide. Ctenophora's most distinctive feature is the combs, groups of cilia, which the Ctenophora use for swimming. Ctenophora are the largest animals that swim by means of cilia. Adults of various species range from a few millimeters to 1.5 meters in size. Like cnidarians, Ctenophora's bodies consist of a mass of jelly, with one layer of cells on the outside and another lining the internal cavity. In ctenophores, the layers of mass of jelly are two cells deep, while the layers in cnidarians are only one cell deep. Some authors combined ctenophores and cnidarians in one phylum, Coelenterata, as both groups rely on water flow through the body cavity for both digestion and respiration. Increasing awareness of the differences persuaded more recent authors to classify ctenophores and cnidarians as separate phyla.

- Q1. What are Ctenophora commonly known as?
- Q2. Where do Ctenophora live?
- Q3. What size are adult Ctenophora?
- Q4. What is a ctenophora?

- Q5. What does the ctenophora use to swim?
- Q6. What does ctenophora use for digestion and respiration?
- Q7. How large can ctenophora grow?
- Q8. What is the most distinctive feature of ctenophora?
- Q9. What are ctenophora commonly known as?
- Q10. How big can ctenophora grow?
- Q11. What does ctenophora rely on for digestion and respiration?
- Q12. Where do ctenophora live?

#### Passage 7: European Union Law

European Union Law is a body of treaties and legislation, such as Regulations and Directives, which have direct effect or indirect effect on the laws of European Union member states. The three sources of European Union Law are primary law, secondary law and supplementary law. The main sources of primary law are the Treaties establishing the European Union. Secondary sources include regulations and directives, which are based on the Treaties. The legislature of the European Union is principally composed of the European Parliament and the Council of the European Union, which under the Treaties may establish secondary law to pursue the objective set out in the Treaties.

- Q1. What are the three sources of European Union law?
- Q2. What is European Union Law?
- Q3. What are the main sources of primary law?
- Q4. What are the secondary sources of primary law?
- Q5. What are the two bodies that make up the European Union's legislature?
- Q6. What is European Union law?
- Q7. What effect does European Union law have on laws of member states?
- Q8. What are the three sources of European Union law?
- Q9. What are the main legislative bodies of the European Union?
- Q10. What are the three main sources of European Union law?
- Q11. What are the main sources of primary law?
- Q12. What is the legislature of the European Union comprised of?
- Q13. How many sources of European Union law are there?

#### Passage 8: Genghis Khan

Genghis Khan came to power by uniting many of the nomadic tribes of Northeast Asia. After founding the Mongol Empire and being proclaimed as Genghis Khan, Genghis Khan started the Mongol invasion that resulted in the conquest of most of Eurasia. The Mongol invasions included raids or invasions of the Qara Khitai, Caucasus, Khwarezmid Empire, Western Xia and Jin dynasties. The Mongol invasion campaigns were often accompanied by wholesale massacres of the civilian populations especially in the Khwarezmian and Xia lands. By the end of Genghis Khan's life, the Mongol Empire occupied a substantial portion of Central Asia and China.

#### Questions

- Q1. What do we call the empire that Genghis Khan founded?
- Q2. Who did Genghis Khan unite before he began conquering the rest of Eurasia?
- Q3. In which regions in particular did Genghis Khan's armies massacre civilians?
- Q4. What areas did Genghis Khan control at the end of his life?
- Q5. Which other empires or dynasties did Genghis Khan conquer?

## Passage 9: Geology

Geology has three major types of rocks namely, igneous, sedimentary, and metamorphic. The rock cycle is an important concept in geology, which illustrates the relationships between these three types of rock, and magma. When a rock crystallizes from magma or lava, the rock is an igneous rock. This rock can be weathered and eroded, and then redeposited and lithified into a sedimentary rock, or be turned into a metamorphic rock due to heat and pressure that change the mineral content of the rock which gives the rock a characteristic fabric. The sedimentary rock can then be subsequently turned into a metamorphic rock due to heat and pressure and is then weathered, eroded, deposited, and lithified, ultimately becoming a sedimentary rock. Sedimentary rock may also be re-eroded and redeposited, and metamorphic rock may also undergo additional metamorphism. All three types of rocks may be remelted. When the rocks are melted, a new magma is formed, from the magma an igneous rock may once again crystallize.

- Q1. An igneous rock is a rock that crystallizes from what?
- Q2. Sedimentary rock can be turned into which of the three types of rock?
- Q3. When the three types of rock are re-melted what is formed?
- Q4. What are the three major types of rock?
- Q5. What changes the mineral content of a rock?

#### **Passage 10:** *Immune System*

The immune system is a system of many biological structures and processes within an organism that protects against disease. To function properly, an immune system must detect a wide variety of agents, known as pathogens, from viruses to parasitic worms, and distinguish them from the organism's own healthy tissue. In many species, the immune system can be classified into subsystems, such as the innate immune system versus the adaptive immune system, or humoral immunity versus cell-mediated immunity. In humans, the blood—brain barrier, blood—cerebrospinal fluid barrier, and similar fluid—brain barriers separate the peripheral immune system from the neuroimmune system which protects the brain.

#### Questions

- Q1. What is the immune system?
- Q2. What does the immune system protect against?
- Q3. What are two of its subsystems?
- Q4. What is the subsystem that protects the human brain?
- Q5. What is the immune system?
- Q6. What does the immune system protect against?
- Q7. What are two of its subsystems?
- Q8. The immune system protects organisms against what?
- Q9. What are the agents the immune system detects known as?
- Q10. Which part of the immune system protects the brain?
- Q11. What separates the neuroimmune system and peripheral immune system in humans?
- Q12. What are the agents detected by the immune system called?
- Q13. What are the two major subsystems of the immune system?
- Q14. What are the two different types of immunity?
- Q15. What is the immune system of the brain known as?

## Passage 11: Kenya

Kenya, officially the Republic of Kenya, is a country in Africa and a founding member of the East African Community (EAC). Its capital and largest city is Nairobi. Kenya's territory lies on the equator and overlies the East African Rift covering a diverse and expansive terrain that extends roughly from Lake Victoria to Lake Turkana (formerly called Lake Rudolf) and further south-east to the Indian Ocean. It is bordered by Tanzania to the south, Uganda to the west, South Sudan to the north-west, Ethiopia to the north and

Somalia to the north-east. Kenya covers 581,309 km2 (224,445 sq mi), and had a population of approximately 45 million people in July 2014.

### Questions

- Q1. Where is Kenya located?
- Q2. What is Kenya a founding member of?
- Q3. What is the capital of Kenya?
- Q4. What country boarders the south of Kenya?
- Q5. What was the population of Kenya in 2014?

## Passage 12: Martin Luther

Martin Luther (10 November 1483 – 18 February 1546) was a German professor of theology, composer, priest, former monk and a seminal figure in the Protestant Reformation. Martin Luther came to reject several teachings and practices of the Late Medieval Catholic Church. Martin Luther strongly disputed the claim that freedom from God's punishment for sin could be purchased with money. Martin Luther proposed an academic discussion of the power and usefulness of indulgences in Martin Luther's proposition, Ninety Five Theses, of 1517. Martin Luther's refusal to retract all of Martin Luther's writings at the demand of Pope Leo X in 1520 and the Holy Roman Emperor Charles V at the Diet of Worms in 1521 resulted in Martin Luther's excommunication by the Pope and condemnation as an outlaw by the Emperor.

### Questions

- Q1. Of what nationality was Martin Luther?
- Q2. When did Martin Luther die?
- Q3. What organization's teaching did Luther reject?
- Q4. What did the Church claim could be avoided with money?
- Q5. What did the Church do when Luther refused to retract his writings?

### Passage 13: Nikola Tesla

Nikola Tesla (10 July 1856 – 7 January 1943) was a Serbian american inventor, electrical engineer, mechanical engineer, physicist, and futurist best known for Nikola Tesla's contributions to the design of the modern alternating current (AC) electricity supply system.

- Q1. In what year was Nikola Tesla born?
- Q2. What was Nikola Tesla's ethnicity?

- Q3. In what year did Tesla die?
- Q4. When was Nikola Tesla born?
- Q5. When did Tesla die?
- Q6. What is Tesla's home country?
- Q7. What does AC stand for?

## Passage 14: Normans

The Normans were the people, who in the 10th and 11th centuries gave their name to Normandy, a region in France. Normans were descended from the Norse raiders and pirates from Denmark, Iceland and Norway who, under Normans leader Rollo, agreed to swear fealty to King Charles III of West Francia. Through generations of assimilation and mixing with the native Frankish and Roman-Gaulish populations, Normans's descendants would gradually merge with the Carolingian based cultures of West Francia. The distinct cultural and ethnic identity of the Normans emerged initially in the first half of the 10th century, and the cultural and ethnic identity continued to evolve over the succeeding centuries.

## Questions

- Q1. In what country is Normandy located?
- Q2. When were the Normans in Normandy?
- Q3. From which countries did the Norse originate?
- Q4. Who was the Norse leader?
- Q5. What century did the Normans first gain their separate identity?

### Passage 15: Oxygen

Oxygen is a chemical element with symbol O and atomic number 8. It is a member of the chalcogen group on the periodic table and is a highly reactive nonmetal and oxidizing agent that readily forms compounds (notably oxides) with most elements. By mass, oxygen is the third-most abundant element in the universe, after hydrogen and helium. At standard temperature and pressure, two atoms of the element bind to form dioxygen, a colorless and odorless diatomic gas with the formula O2. Diatomic oxygen gas constitutes 20.8% of the Earth's atmosphere. However, monitoring of atmospheric oxygen levels show a global downward trend, because of fossil-fuel burning. Oxygen is the most abundant element by mass in the Earth's crust as part of oxide compounds such as silicon dioxide, making up almost half of the crust's mass.

- Q1. The atomic number of the periodic table for oxygen?
- Q2. What is the second most abundant element?

- Q3. How many atoms combine to form dioxygen?
- Q4. Roughly, how much oxygen makes up the Earth crust?
- Q5. Which gas makes up 20.8% of the Earth's atmosphere?
- Q6. How much of the earth's atmosphere is diatomic oxygen?
- Q7. What element makes up almost half of the earth's crust by mass?
- Q8. What is the atomic number for oxygen?
- Q9. Are atmospheric oxygen levels going up, down, or staying the same?
- Q10. What are the three most abundent elements of the universe by mass?
- Q11. What is the atomic number of the element oxygen?
- Q12. Of what group in the periodic table is oxygen a member?
- Q13. What type of compounds does oxygen most commonly form?
- Q14. Compared to other elements, how abundant does oxygen rank?
- Q15. Under normal conditions, what do two atoms of oxygen form?

#### Passage 16: Rhine

The Rhine, is a European river that begins in the Swiss canton of Graubünden in the southeastern Swiss Alps, forms part of the Swiss-Austrian border, Swiss-Liechtenstein border, Swiss-German and then the Franco-German border, then flows through the Rhineland and eventually empties into the North Sea in the Netherlands. The biggest city on the river, Rhine, is Cologne in Germany with a population of more than 1,050,000 people. The Rhine is the second-longest river in Central and Western Europe, after the Danube, at about 1,230 kilometre, with an average discharge of about 2,900 m3/s.

- Q1. Where does the Rhine begin?
- Q2. Where does the Rhine empty?
- Q3. What is the largest city the Rhine runs through?
- Q4. What river is larger than the Rhine?
- Q5. How long is the Rhine?
- Q6. Where is the Rhine?
- Q7. What country does the Rhine empty?
- Q8. How long is the Rhine?

# Passage 17: Southern California

Southern California, often abbreviated as SoCal, is a geographic and cultural region that generally comprises California's southernmost 10 counties. Southern California is, traditionally described as "eight counties", based on demographics and economic ties. The eight counties are Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura. The more extensive 10-county definition, including Kern and San Luis Obispo counties, is also used based on historical political divisions. Southern California is a major economic center for the state of California and the United States.

#### Questions

- Q1. What is Southern California often abbreviated as?
- Q2. Despite being traditional described as "eight counties", how many counties does this region actually have?
- Q3. What is a major importance of Southern California in relation to California and the United States?
- Q4. What are the ties that best described what the "eight counties" are based on?
- Q5. The reasons for the last two counties to be added are based on what?

### Passage 18: Steam Engine

Steam engines are external combustion engines, where the working fluid is separate from the combustion products. Non-combustion heat sources such as solar power, nuclear power or geothermal energy may be used. The ideal thermodynamic cycle used to analyze this process is called the Rankine cycle. In the cycle, water is heated and transforms into steam within a boiler operating at a high pressure. When expanded through pistons or turbines, mechanical work is done. The reduced-pressure steam is then condensed and pumped back into the boiler.

- Q1. Along with geothermal and nuclear, what is a notable non-combustion heat source?
- Q2. What ideal thermodynamic cycle analyzes the process by which steam engines work?
- Q3. In the Rankine cycle, what does water turn into when heated?
- Q4. At what pressure is water heated in the Rankine cycle?
- Q5. What types of engines are steam engines?

#### Passage 19: Super Bowl 50

Super Bowl 50 was an American football game. Super Bowl 50 was to determine the champion of the National Football League (NFL) for the 2015 season. The American Football Conference's (AFC) champion, Denver Broncos, defeated the National Football Conference's (NFC) champion, Carolina Panthers, by 24 10 to earn AFC third Super Bowl title. As Super Bowl 50 was the 50th Super Bowl, the league emphasized the 'golden anniversary' with various gold themed initiatives, as well as temporarily suspending the tradition of naming each Super Bowl with roman numerals, under the tradition the game would have been known as Super Bowl L, so that the logo could prominently feature the Arabic numerals 50. The game was played on February 7 2016, at Levis Stadium, in the San Francisco Bay Area, at Santa Clara in California.

- Q1. Which NFL team represented the AFC at Super Bowl 50?
- Q2. Which NFL team represented the NFC at Super Bowl 50?
- Q3. Where did Super Bowl 50 take place?
- Q4. Which NFL team won Super Bowl 50?
- Q5. What color was used to emphasize the 50th anniversary of the Super Bowl?
- Q6. What was the theme of Super Bowl 50?
- Q7. What day was the game played on?
- O8. What is the AFC short for?
- Q9. What was the theme of Super Bowl 50?
- O10. What does AFC stand for?
- Q11. What day was the Super Bowl played on?
- Q12. Who won Super Bowl 50?
- Q13. What venue did Super Bowl 50 take place in?
- Q14. What city did Super Bowl 50 take place in?
- Q15. If Roman numerals were used, what would Super Bowl 50 have been called?
- Q16. Super Bowl 50 decided the NFL champion for what season?
- Q17. What year did the Denver Broncos secure a Super Bowl title for the third time?
- Q18. What city did Super Bowl 50 take place in?
- Q19. What stadium did Super Bowl 50 take place in?
- Q20. What was the final score of Super Bowl 50?
- Q21. What month, day and year did Super Bowl 50 take place?

- Q22. What year was Super Bowl 50?
- Q23. What team was the AFC champion?
- Q24. What team was the NFC's champion?
- Q25. Who won Super Bowl 50?
- Q26. Super Bowl 50 determined the NFL champion for what season?
- Q27. Which team won Super Bowl 50?
- Q28. Where was Super Bowl 50 held?
- Q29. The name of the NFL championship game is?

## Passage 20: Warsaw

One of the most famous people born in Warsaw was Maria Sklodowska Curie, Maria Curie achieved international recognition for Maria Curie's research on radioactivity and was the first female recipient of the Nobel Prize. The famous musicians include Wladyslaw Szpilman and Frédéric Chopin. Though Chopin was born in the village of Zelazowa Wola about 60 km from Warsaw, Chopin moved to the city with Chopin's family, when Chopin was seven months old. Casimir Pulaski, a polish general and hero of the American Revolutionary War, was born in Warsaw in 1745.

- Q1. What was Maria Curie the first female recipient of?
- Q2. What year was Casimir Pulaski born in Warsaw?
- Q3. Who was one of the most famous people born in Warsaw?
- Q4. Who was Frederic Chopin?
- Q5. How old was Chopin when he moved to Warsaw with his family?