

#### Math Example questions:

What is the Pythagorean theorem and how is it used in geometry?

Explain the concept of derivatives in calculus and give an example of its application.

What are prime numbers, and what significance do they hold in number theory?

How does probability theory help in decision-making and risk assessment?

Can you explain the concept of vectors and their applications in physics and engineering?

#### Medicine Example questions:

What are the major differences between viral and bacterial infections, and how are they treated differently?

Describe the process of how vaccines work and their importance in preventing diseases.

What are the main causes and risk factors associated with cardiovascular diseases?

Explain the role of antibiotics in combating bacterial infections and the issue of antibiotic resistance.

How does the immune system function, and what are some common disorders related to immune dysfunction?

#### History Example questions:

What were the major causes and consequences of World War I?

Describe the impact of the French Revolution on European politics and society.

Discuss the significance of the Renaissance in shaping the cultural and intellectual landscape of Europe.

What were the main factors contributing to the fall of the Roman Empire?

Explain the key events and consequences of the Cold War between the United States and the Soviet Union.

#### Technology Example questions:

What are the differences between artificial intelligence and machine learning, and how are they applied in modern technology?

Describe the concept of blockchain technology and its potential applications beyond cryptocurrency.

How does augmented reality differ from virtual reality, and what are their respective uses?

Discuss the impact of the Internet of Things (IoT) on daily life and various industries.

Explain the principles behind renewable energy technologies such as solar power and wind turbines.

#### Literature Example questions:

Analyze the themes and symbolism in William Shakespeare's "Romeo and Juliet."

Discuss the significance of the protagonist's journey in Joseph Campbell's concept of the monomyth.

Compare and contrast the writing styles of Ernest Hemingway and F. Scott Fitzgerald.

What were the major themes explored in George Orwell's novel "1984," and how do they relate to contemporary society?

Explain the concept of postcolonial literature and its impact on literary studies.