#### **2 Marker Questions:**

1. **Define price elasticity of demand (PED).  
   Answer:**Price elasticity of demand (PED) measures the responsiveness of the quantity demanded of a good to a change in its price. It is calculated as the percentage change in quantity demanded divided by the percentage change in price.
2. **What is meant by inelastic demand?  
   Answer:**Inelastic demand refers to a situation where the percentage change in quantity demanded is less than the percentage change in price (PED < 1). This means that consumers are relatively less responsive to price changes.

#### **4 Marker Questions:**

1. **Explain the factors that influence the price elasticity of demand.  
   Answer:**Several factors affect the price elasticity of demand:
   * **Availability of substitutes:** If close substitutes are available, demand is more elastic. For example, if the price of coffee rises and consumers can easily switch to tea, the demand for coffee is more elastic.
   * **Necessity versus luxury goods:** Necessities tend to have inelastic demand, while luxury goods have elastic demand. For example, medicine has inelastic demand because people need it regardless of price, while luxury cars have elastic demand because consumers can forgo purchasing them if prices rise.
   * **Time period:** The demand for goods may be more elastic in the long run as consumers have more time to adjust to price changes. In the short term, demand might be inelastic.
2. **Distinguish between elastic and inelastic demand with examples.  
   Answer:**
   * **Elastic Demand:** When a good has elastic demand, a small change in price leads to a large change in quantity demanded. For example, the demand for a specific brand of soft drink is often elastic because there are many substitutes available.
   * **Inelastic Demand:** When a good has inelastic demand, price changes lead to a relatively small change in quantity demanded. For example, the demand for insulin is inelastic because it is a necessity for diabetic patients and there are no close substitutes.

#### **6 Marker Questions:**

1. **Explain the difference between perfectly elastic and perfectly inelastic demand.  
   Answer:**
   1. **Perfectly Elastic Demand** occurs when the quantity demanded changes infinitely in response to a very small change in price. This situation is represented by a horizontal demand curve. For example, in perfectly competitive markets, consumers might switch to another supplier if the price changes even slightly.
   2. **Perfectly Inelastic Demand** occurs when the quantity demanded remains unchanged regardless of changes in price. This is represented by a vertical demand curve. An example could be a life-saving medication that a person needs at a specific dose, and they will purchase it at any price.
2. **How do the availability of substitutes and the proportion of income spent on a good influence PED?  
   Answer:**
   1. **Availability of Substitutes:** The more substitutes there are for a good, the more elastic its demand will be. For example, if the price of one brand of coffee increases, consumers can easily switch to another brand, leading to a more elastic demand.
   2. **Proportion of Income Spent on a Good:** If a good represents a large proportion of a consumer’s income, the demand for that good tends to be more elastic. For example, a significant increase in the price of a car may result in a substantial reduction in the quantity demanded, as it represents a large portion of a person’s income.

#### **8 Marker Questions:**

1. **Discuss the significance of price elasticity of demand for producers and policymakers.  
   Answer:**Understanding the price elasticity of demand (PED) is critical for both producers and policymakers because it helps them predict how changes in price will affect total revenue and overall market outcomes.
   * **Producers**:  
     Producers use knowledge of PED to make pricing decisions that maximize their total revenue. If demand for a product is **elastic** (PED > 1), producers know that reducing the price will lead to a larger increase in quantity demanded, thus increasing total revenue. Conversely, if demand is **inelastic** (PED < 1), producers may increase the price to increase total revenue, as the decrease in quantity demanded will be relatively smaller.
     + For example, if the price of a luxury product like designer handbags is reduced, and demand is elastic, the increase in quantity demanded will more than compensate for the price reduction, increasing total revenue.
     + In contrast, a company selling essential products like water may increase prices in an area facing a drought, where demand is inelastic, and consumers cannot forgo purchasing.
   * **Policymakers**:  
     Policymakers must also consider PED when implementing taxes or subsidies. If a good has inelastic demand, imposing taxes on it may not significantly reduce consumption, and the government may raise substantial revenue from such taxes. For example, a **sin tax** on cigarettes, which typically have inelastic demand, would generate significant government revenue without significantly affecting consumption.  
     On the other hand, for goods with elastic demand, imposing high taxes may lead to reduced consumption and potentially less tax revenue. This requires policymakers to carefully balance the goals of revenue generation with potential negative impacts on consumers and producers.
2. **Conclusion**:  
   In conclusion, the concept of price elasticity of demand is crucial for both producers who seek to maximize their profits and for policymakers aiming to design effective economic policies. By understanding how price changes will influence consumer behavior, they can make informed decisions about pricing, taxation, and subsidies.

#### **10 Marker Questions:**

1. **Evaluate the relationship between income elasticity of demand (YED) and the classification of goods as normal, inferior, and luxury goods.  
   Answer:**Income elasticity of demand (YED) measures the responsiveness of quantity demanded to a change in consumer income. The value of YED can help classify goods into different categories, such as normal goods, inferior goods, and luxury goods. The classification is based on how demand for these goods changes with an increase in income.
   * **Normal Goods (0 < YED < 1)**:  
     Normal goods are those whose demand increases as income rises but at a slower rate than income. These goods are considered essential or desirable, but their consumption is not highly sensitive to changes in income. For example, food or clothing may be normal goods because as incomes increase, people buy more, but not by a large proportion.
   * **Inferior Goods (YED < 0)**:  
     Inferior goods are those whose demand decreases as income increases. These goods are typically lower-quality substitutes for more expensive products. For instance, as incomes rise, consumers may reduce their demand for instant noodles or second-hand clothing in favor of higher-quality food or new clothing.
   * **Luxury Goods (YED > 1)**:  
     Luxury goods have a high income elasticity of demand, meaning that as incomes rise, the demand for these goods increases disproportionately. These goods are typically not essential and are purchased based on consumer preference and status. Examples include high-end cars, designer clothing, and expensive vacations.
2. **Evaluation**:  
   The relationship between income elasticity of demand and the classification of goods provides important insights for businesses and policymakers. Firms can use this information to predict how changes in economic conditions, such as a rise in income, will affect their product sales. For example, luxury brands expect a large increase in demand during times of economic growth, while inferior goods may see a drop in demand.  
   For policymakers, understanding YED is crucial for predicting the impacts of economic policies. During periods of economic growth, taxes on luxury goods may be more effective at raising revenue, while subsidies may be targeted towards normal or inferior goods to support lower-income consumers.  
   **Conclusion**:  
   In conclusion, income elasticity of demand provides valuable information about consumer behavior and helps businesses and policymakers understand how income changes influence different categories of goods. Understanding YED is essential for making strategic pricing, marketing, and policy decisions.

#### **15 Marker Questions:**

1. **Assess the effectiveness of government intervention in the market for demerit goods, considering both the benefits and drawbacks of policies such as taxation and regulation.  
   Answer:**Government intervention in markets, particularly for demerit goods, aims to reduce consumption of products that have negative social or economic consequences. Demerit goods, such as tobacco, alcohol, and junk food, are considered harmful to both the individual consumer and society. Governments typically use policies such as taxation, regulation, and public awareness campaigns to decrease the consumption of these goods. However, these interventions come with both benefits and drawbacks.  
   **Benefits of Government Intervention:**
   * **Reduction in Consumption:**One of the primary benefits of government intervention is the reduction in the consumption of harmful goods. Taxation, for example, increases the price of demerit goods, which can lead to a decrease in demand. For example, the imposition of a **sin tax** on tobacco and alcohol has led to decreased consumption, especially among price-sensitive consumers.
   * **Public Health Benefits:**Reducing the consumption of demerit goods can lead to long-term public health benefits. For instance, reducing smoking rates through higher taxes and smoking bans can lead to a decline in diseases such as lung cancer and heart disease, improving overall public health.
   * **Revenue Generation:**Taxes on demerit goods can also generate significant government revenue, which can be used to fund public health programs or other social welfare initiatives. For example, tobacco taxes often fund anti-smoking campaigns or healthcare services for individuals affected by smoking-related diseases.
2. **Drawbacks of Government Intervention:**
   * **Regressive Nature of Taxes:**Taxes on demerit goods can be regressive, meaning that they disproportionately affect low-income consumers who spend a higher percentage of their income on these goods. This can lead to increased inequality and hardship for certain segments of society. For example, higher taxes on tobacco can burden lower-income smokers who may find it difficult to quit.
   * **Black Markets and Unintended Consequences:**High taxes or heavy regulation can lead to the creation of black markets. If the price of a demerit good increases significantly due to taxes, consumers may turn to illegal markets or smuggling, undermining the effectiveness of government intervention. For example, the rise in cigarette taxes in some countries has led to an increase in cigarette smuggling.
   * **Consumer Backlash:**Policies such as smoking bans in public places or restrictions on alcohol sales can lead to consumer backlash, particularly among groups who feel that their personal freedoms are being infringed upon. This can make it politically difficult to sustain or implement such interventions.
3. **Evaluation:**The effectiveness of government intervention in reducing the consumption of demerit goods depends on the type and level of intervention, as well as the characteristics of the good in question. For example, higher taxes may be more effective in reducing consumption of tobacco than of alcohol, as tobacco is more price-sensitive. Furthermore, government intervention must be carefully designed to avoid unintended consequences, such as black markets or excessive burdens on low-income consumers.  
   **Conclusion:**Overall, government intervention in markets for demerit goods can be effective in reducing consumption and promoting public health. However, these interventions must be carefully designed to balance the benefits of reduced consumption and public health improvements with the potential drawbacks, such as regressive effects, black market activity, and consumer resistance. Policymakers need to consider the broader social context and implement complementary policies, such as education and support for addiction treatment, to achieve sustainable outcomes.