Table of Contents

Microeconomics

1-Basic Economic Principles

1. Answer: A

Answer A is correct because in the short run, at least 1 factor of production is fixed. In the long run, all factors of production are variable. Answer B is incorrect because labor-saving technological progresses usually have no effect on unemployment in the long run since new jobs are being created in other sectors. Answer C and D are trivially incorrect. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

2. Answer: D

Rational people make decisions based on cost-benefit analysis, where they compare the marginal cost and marginal benefit of an action.

3. Answer: A

In an economy where property rights are enforced, homeowners will not be in a worry that their properties could be stolen or damaged. This incentivizes them to keep properties.

4. Answer: D

The movement from A to B shows resources are more efficiently used, including labor. Therefore, unemployment should decrease, and A is incorrect. During the process, both consumption goods and capital goods show increases from the graph, therefore B is incorrect. Decrease of unemployment from the movement of A to B in the graph does not reduce neither consumption goods and capital goods, therefore C is incorrect.

As B is on Production Possibilities Curve, it indicates the economy is fully using its resources, and D is correct answer. (Credit to Mingming Qian from Xiang Jiang International High School)

5. Answer: A

PPF refers to the maximum level of combination of two goods that one economy can achieve when using existing resources in full. There are trade-offs between the production of two goods (A and B for example), To gain one more unit of good A, the economy has to give up some units of good B. The amounts of good B that the economy gives up is the opportunity cost of producing this unit of good A, representing by the slope of PPF. PPF refers to the productive potential of an economy, not related to income, production methods, and market price. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

2-Supply and Demand

6. Answer: B

For the quantity of gasoline sold to increase, either supply or demand must increase, all else equal. A fall in the price of automobiles decreases the price of a "complementary good," a factor that increases the demand for gasoline. An increase in the price of crude oil or an increase in taxes on gasoline will decrease the supply of gasoline. A decrease in consumer incomes will reduce the demand for gasoline.

7. Answer: D

A fall in the price of oil would decrease the marginal cost, or the supply, of products derived from oil. Since plastics is made out of oil, answer D is correct. Answer A is incorrect because a fall in mortgage interest would make buying new houses less costly, shifting up the demand for new houses. Answer B is trivial. Answer C is incorrect because Samsung smartphones are substitutes of iPhones, and its new launch would encourage consumers to switch from using iPhones to buying the new Samsung. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

8. Answer: C

The 30 units deficit tells us that quantity demanded exceeds quantity supplied by 30. This occurs at the price at which $100-2P=-20+P+30$. Solving the linear equation, we have $P=30$. Therefore C. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

9. Answer: E

The definition of law of diminishing marginal returns is that marginal product of an additional amount of input decreases as input increases.

10. Answer: C

Government increased the tax on the producers, the cost of production increase, so the supply curve shift to left. Choice C is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

11. Answer: E

The problem statement describes an increase in demand relative to supply. Looking at the answer choices, E is the only choice that leads to an increase in demand. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

12. Answer: D

The rightward shift of the supply curve indicates an increase in supply. The increase in quantity demanded could be observed from a shift in the market equilibrium. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

13. Answer: C

In the long run, people will have more time to adjust and respond to changes in the price of gasoline, so the demand of gasoline will be more elastic in the long term than in the short term.

14. Answer: E

In the equilibrium, if the price of the substitutes increases, the demand of bread shift to right, the quantity and price would both increase, so the price of bread increase. Choice E is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

15. Answer: B

Income and substitution effects in the context of labor markets are equivalent to in the context of consuming a particular good. More precisely, they refer to the income/substitution effect of purchasing leisure (purchasing non-work hours). The income effect states that when the wage increase, workers can afford to work for fewer hours whilst maintaining their level of income. The substitution effect states that as the wage rate rises, workers are willing to work more hours and substitute away from their leisure time, because the opportunity cost of leisure time rises with a higher wage rate. In this case, Annette decides to work fewer hours. Therefore, the substitution effect is less than the income effect. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

16. Answer: B

A drought destroyed half of the garlic crop, the supply curve of garlic will shift to the left, price increases, and quantity decreases.
When the benefits of garlic were being well-publicized, the demand curve will shift to the right, price increases and quantity increases.
So definitely price will increase, but quantity is uncertain depends on the extent to supply curve or demand curve shifts. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

17. Answer: B

When a tax is imposed, the cost of production of fur coats would increase thus the supply curve shifts to left, leading to increase in price. The demand for fur coats is likely to be price elastic because the spending on fur coats usually accounts for a greater proportion of income. Consumers would be sensitive to the increase in price. Therefore, increase in price of fur coats would lead to a large decline

in the sales of fur coats. B is correct.
For A, the tax revenue won't increase by a large amount because the quantity decreases by a larger proportion than the increase in price.
For C, tax on fur coats is one indirect tax, which affects all of the buyers, regardless of the rich or the poor.
For D, because of price elastic demand, the producers cannot pass on the tax burden to buyers though raising price.
(Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

18. Answer: A

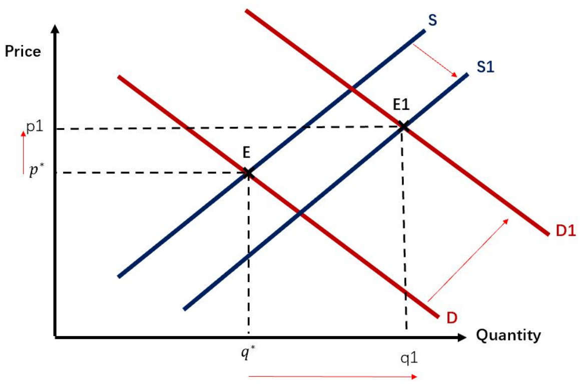
Consumer surplus=the price you are willing and able to pay - actually pay. If there is consumer surplus, the price of the good is less than the highest price you are willing and able to pay for the good. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

19. Answer: B

Consumer Surplus = Willingness to Pay - Price
In this question, Willingness to Pay (WTP) = \$ 2.19, Price = \$1.89
Therefore, the Consumer Surplus = 2.19-1.89 = \$ 0.30
(Credit to Mingming Qian from Xiang Jiang International High School)

20. Answer: B

The original market equilibrium is E. When the demand for apples increased more than the supply of apples increased, both the demand and supply curve of apples will shift to the right. And the demand curve will shift more (from D to D1) than the supply curve (from S to S1) shown as below diagram.



Thus, there will be an increase in equilibrium price (from p* to p1) and an increase in equilibrium quantity (from q* to q1). (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

21. Answer: B

The core of Adam Smith's The Wealth of Nations was that humans' natural tendency toward self-interest (or in modern terms, looking out for yourself) results in prosperity. Smith argued that by giving everyone freedom to produce and exchange goods as they pleased (free trade) and opening the markets up to domestic and foreign competition, people's natural self-interest would promote greater prosperity than with stringent government regulations. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

22. Answer: C

A is incorrect. There will have less innovation in the absence of patents. B is incorrect. Longer patent duration leads to a longer period that the potential innovators blocked from using patented knowledge. C is correct. D is incorrect. The scope and use of patented products and processes differ in a huge variety of ways, there should also be a variety of patent lengths. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

3-Market Equilibrium

23. Answer: A

When a tax is imposed on sales of a good, supply of the good will shift to left. It will cause the price paid by the buyer to increase, and quantity traded to decrease, lower than original quantity traded. (Credit to Mingming Qian from Xiang Jiang International High School)

24. Answer: A

If the product price is above the equilibrium, a surplus is likely because sellers offer more for sale at that price than consumers are willing to purchase. Normally, the surplus pushes prices downward to equilibrium and eliminates the surplus. In this case, the law sets a minimum price above the equilibrium and the surplus remains. No factors shifting supply or demand are present in this question, thus eliminating the last two options.

25. Answer: A

The market equilibrium price equates the amount buyers wish to buy with the amount sellers wish to sell. A shortage occurs in a market when the selling price is below the market equilibrium price, leading to a greater amount demanded than supplied. At this relatively low price, competition among buyers places upward pressure on the price until the market equilibrium is reached. As the market price rises, sellers will be willing and able to bring more of the product to market, increasing the quantity exchanged.

26. Answer: A

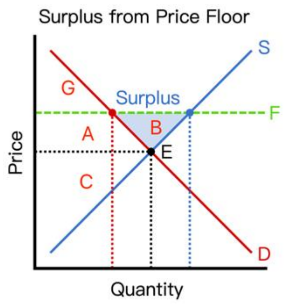
When there is a surplus, inventories are collected. This creates a downward pressure on the market price because producers need to sell off these inventories. Therefore, the market price will eventually decrease. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

27. Answer: B

A price ceiling is where the maximum price of a good is below the equilibrium. In this case, the price is set to $5 but the equilibrium price is $10. At the price ceiling, quantity demanded is greater than equilibrium quantity, and quantity supplied is less than equilibrium quantity. Hence, a shortage will emerge.

28. Answer: A

Without price floor, the benefit of buyers = G+A and the benefit of sellers = C. With price floor, the benefit of buyers = G and the benefit of sellers = C+A+B. Sellers benefit from the price floor. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)



29. Answer: B

An effective minimum price (price floor) is one imposed above the equilibrium price. With the price floor effective, the market price has to rise from equilibrium to the price floor. Now that the price floor is lifted, the market price can fall freely to equilibrium to get rid of the market surplus created by the price floor. Quantity exchanged would increase, shown by a movement down along the demand curve, to the equilibrium quantity. (Credit to Wenbin Zheng from HD Qingdao Wanda School)

30. Answer: A

Since the government has banned organ dealing or any sort, organs are supplied through donation. This is equivalent to having a price ceiling at 0 units in the organ market, at which price there is a significant shortage. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

31. Answer: B

As the government imposes $1.50 price ceiling on the price of bread, the quantity demanded will be greater than quantity supplied. Therefore, it causes shortage, and B is the correct answer.
Demand and Production of bread will not be affected by the price change of bread. Only non-price determinants can change the demand and supply of bread. (Credit to Mingming Qian from Xiang Jiang International High School)

32. Answer: D

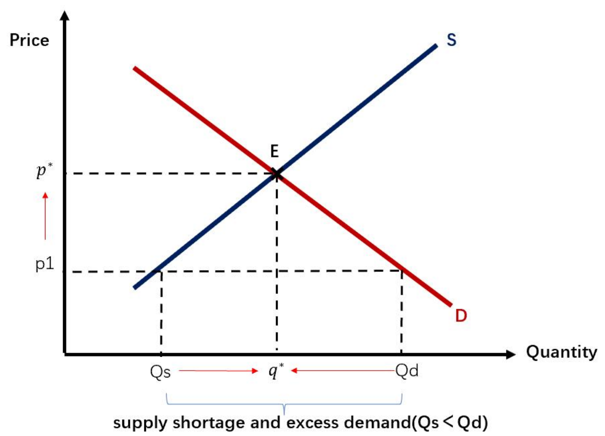
Price floor is a minimum price buyers are required to pay for a good or service. It should be set above the equilibrium price. In this graph above, the market equilibrium price is $3, but the price floor is only set at $2, so the floor has no effect. The exchange price still will be $3. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

33. Answer: C

Price control includes maximum price and minimum price control. If imposing effective maximum price (below equilibrium price), the Qd > Qs, excess demand occurs. If imposing effective minimum price which is above equilibrium price, Qs >Qd, shortage occurs. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

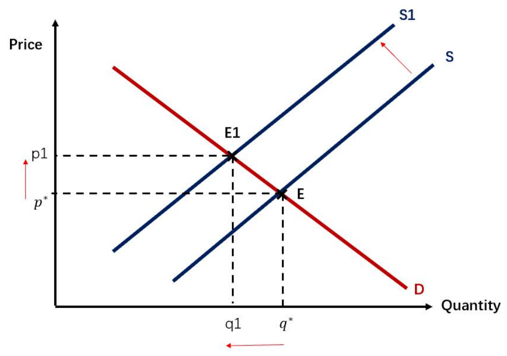
34. Answer: D

There is temporary shortage in the market, which means Quantity supplied (Qs) is less than Quantity demanded (Qd), if the market wants to go back to equilibrium to E shown in below diagram, the price should be increased (from p1 to p*) to cause the quantity supplied increase from Qs to q* and quantity demanded decrease from Qd to q*. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)



35. Answer: A

The tax government charge is per unit tax (specific tax), which will shift the supply curve of blue jeans to the left (from S to S1), leading to a rise in price of blue jeans (from p* to p1) and fewer quantity traded of blue jeans (from q* to q1) as shown in below diagram. The market equilibrium will change from E to E1. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)



4-Elasticity

36. Answer: C

This question checks the relationship between price elasticity of demand (PED) and total revenue. When PED <1, demand is price inelastic, which means consumers are less sensitive to price change or the percent change in quantity demanded will be less than the percent change in price, vice versa. Therefore, When PED>1, lower price leads to higher revenue; when PED<1, higher price leads to higher revenue. When PED=1, total revenue will decrease no matter how price changes. C is correct. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

37. Answer: C

The cross-price elasticity of demand between two products measures the responsiveness of quantity demanded of one product when there' s a price change in the other one. When a product' s price increases, the close substitutes of it will meet significantly higher quantity demanded.

38. Answer: B

Luxury goods, as opposed to necessities, face a relatively elastic demand. A good with many substitutes is easily substitutable when its price increases, causing it to face a relatively elastic demand. Price changes of a good whose price represents a large portion of consumer income are significantly impactful, causing the good to face a relatively elastic demand. All characteristics of the Hawaii trip, therefore, cause it to face an elastic demand. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

39. Answer: E

The PED (absolute value) of this cheese is 22/14=1.57, which is higher than 1 and considered in the elastic range.

40. Answer: D

In the perfectly competitive market, the individual farmer faces a horizontal demand curve because each individual firm is a price taker. The horizontal demand curve means the elasticity of demand is infinite. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

41. Answer: D

Over time, companies can increase their productive capacity by investing in more capital equipment, often taking advantage of technological advances. Equally, over time, more businesses can enter or leave an industry and this will increase the flexibility of supply. Supply tends to be more elastic. Thus, the longer the time, the greater the price elasticity of supply (PES). (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

42. Answer: C

Who shares more tax depends on the elasticity of supply and demand. A tax burden falls more heavily on the side of the market that is less elastic. If the demand is perfectly inelastic, the tax burden falls entirely on the demand side. That means the consumers bear the whole tax burden. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

5-Market Efficiency and Social Welfare

43. Answer: C

A complete market failure exists when free markets doesn't supply the good at all. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

44. Answer: A

Misallocation of resources causes the inefficient production in multiple industries. Also, the mismatch isn' t likely to complement each other. Therefore, this immobility, inability to self-adjust, requires government to intervene. (Credit to Herui Chen from HEFEI NO.EIGHT SENIOR HIGH SCHOOL)

45. Answer: C

Reducing payroll taxes increases workers' disposable, or after-tax, income. More income can lead to more of the activities for which income can be used, such as saving and consumption. Thus, unemployment would not increase. There is no clear direct effect of payroll tax changes on investment.

46. Answer: B

Answer A inaccurately describes the Coase theorem and is incorrect in stating "even in the presence of transaction costs" because "sufficiently low transaction costs" are a prerequisite for successful private-party pareto-efficiency-reaching bargaining. Answer B is correct because pesticides have negative consumption externalities (third parties are negatively affected by consumers' use of pesticides). There is therefore a difference between the demand curve (marginal private benefit curve) and the social-cost-reflecting marginal social benefit curve. Hence, B is correct. Answer C is incorrect because some externalities, positive externalities to be specific, result in the good producing the external effect being underproduced or underused. Answer D is incorrect because the diction "inefficient" is inaccurate. Air travel generates significant air pollution and therefore produces negative externalities. Taxing flights, therefore, decreases the quantity of air travel to improve social efficiency. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

47. Answer: B

The tax table shows a system where the percentage tax rate rises with increasing income brackets. This is a progressive income tax system. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

48. Answer: B

A is incorrect. Bargaining will lead to a Pareto efficient outcome regardless of the initial allocation of property. C is incorrect. If the factory has the right to make noise, it will prefer to bargain with the nurses. D is incorrect, they will not obtain all of the net social gain from factory production. B is correct. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

49. Answer: D

Market failure is a situation in which the allocation of goods and services by a free market is not Pareto efficient, often leading to a net loss of economic value. A is incorrect. The government intervention may improve on market outcomes. B is incorrect. The markets are usually a good way to organize economic activity. C is incorrect. The marginal benefit is the price of good. The marginal cost can be greater than marginal benefit. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

50. Answer: E

Answer A to D are all apt descriptions. E is not. Public goods are non-rivalrous and therefore quite ambiguous in terms of costs. Under most circumstances, public goods are unquantifiable. Therefore, E is our answer. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

51. Answer: E

E is correct. Average rax rate is calculated as total tax paid as a percentage of total income. If it rises as income rises, then it's a progressive tax, i.e. people with higher income pay a higher percentage of their income as tax. (Credit to Wenbin Zheng from HD Qingdao Wanda School)

52. Answer: C

Economic efficiency is when all goods and factors of production in an economy are distributed or allocated to their most valuable uses and waste is eliminated or minimized. Economically efficient can also called Allocative Efficient. It normally happens when an economy reaches an equilibrium; and total surplus (sum of consumer surplus and producer surplus) is maximized. (Credit to Mingming Qian from Xiang Jiang International High School)

53. Answer: A

Deadweight loss is usually caused by decrease in total surplus. The total surplus is usually maximized at equilibrium. When there is a market distortion, such as tax or price control, consumer surplus or producer surplus will be lower. Therefore, there will be a decrease in total surplus. (Credit to Mingming Qian from Xiang Jiang International High School)

54. Answer: D

A free rider is a person who benefits from something without expending effort or paying for it. In this question, Fred watched public television program, but never paid to the station. So, Fred qualifies as a free rider. Therefore, D is correct.
Betty in Answer B is also a close answer. However, it does not mention if Betty pays to the library. Therefore, compared to B, D is much closer to the definition. (Credit to Mingming Qian from Xiang Jiang International High School)

55. Answer: C

Total surplus means the total benefit to society from the production and consumption of the good. When the total surplus is maximized, we say the market is efficiency. But when total surplus decreases due to tax or other factors, deadweight loss occurs. It represents the cost to society of inefficiency. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

56. Answer: B

Externality refers to when the private market does not reflect the correct allocation of resources. It represents external benefit or external cost imposed on the third party rather than the consumers or producers. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

57. Answer: A

The economically efficient outcome occurs when the government internalizes the externality entirely, or in other words, when the tax rate equals the external cost at all possible quantities. This is equivalent to saying that the marginal tax rate equals the marginal external cost ("marginal cost to other people") at all quantities. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

58. Answer: C

After imposing taxation, the equilibrium quantity will be lower, thus there will occur deadweight loss. Consumers and producers will loss both tax and deadweight loss. As a result, losses to buyers and sellers exceed the tax revenue. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

59. Answer: D

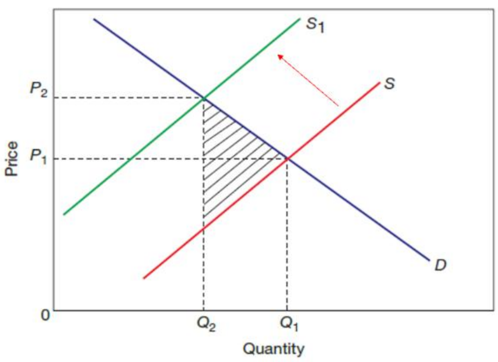
Free-riders mean that someone does not pay for the good when they consume. Thus, free rider problem usually results from the non-excludability of the public good. Because of this problem, the producer of the good has not enough incentive to produce the good, since they cannot charge the price directly from consumers. Therefore, without government intervention, public goods will not be provided by producers and under provided. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

60. Answer: C

A per-unit tax is a tax that is specified as a fixed amount for each unit of a good sold. It indicates the price buyers pay and indicates the price sellers receive net of the tax. Federal excises taxes on gasoline and cigarettes fall into this per unit tax category. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

61. Answer: C

The price and quantity of the product are given by the intersection of supply and demand before the per-unit tax is imposed. This gives a price of P1 and a quantity of Q1. The imposition of the tax is the equivalent of an increase in the costs of production and thus it shifts the supply curve to the left (S to S1). This leads to a higher price, P2, which is the new price consumers buy now and a lower quantity, Q2. Desirable production and consumption are discouraged because of the higher price. The resulting overall loss of economic welfare is shown by the shaded triangle. It gives a measure of the amount of deadweight loss due to the imposition of the tax. From a wider perspective, excessive taxes can undermine competitiveness in a market. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)



62. Answer: B

Government failure refers to when the government intervenes in the economy to fix a problem, but only ends up creating more problems. When government want to subsidize a merit good that has positive externality, failing to determine its marginal social benefits would lead to a deadweight loss caused by deficient or too much subsidy.

63. Answer: E

Pure public good has the characteristic of non-excludable and non-rival. Non-excludable means it is not possible to stop all benefiting from consumption. Non-rival means as more consume, the benefit to those already consuming is not diminished. Take the example of a lighthouse. Once a lighthouse is built to warn one ship at sea away from a dangerous area of rocks, then by its very nature, this service will automatically be provided to all ships that sail within a certain distance of the lighthouse. It is nonexcludable. Equally, the fact that other ships see the light given by the lighthouse and are warned away from the dangerous rocks does not reduce the benefit that any one particular ship receives from that warning. It is non-rival. That's why option E is not true, which should be one person's consumption won't reduce the amount available for others. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

64. Answer: D

The tragedy of the commons is a problem in economics that occurs when individuals neglect the well-being of society in the pursuit of personal gain. This leads to over-consumption and ultimately depletion of the common resource, to everybody's detriment. Solution to the tragedy of the commons is the imposition of private property rights, that is to establish private ownership of the resource. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

65. Answer: D

The market may not produce the public goods. There may be a consumer demand for such products (consumers are willing and able, in principle, to pay for the product's services), but the free market may not have a mechanism for guaranteeing their production. This problem is referred to as the free rider issue. Some consumers attempt to gain a 'free ride' on the back of other consumers' purchasing the public good. One of the key characteristics of public goods is that they are non-excludable. This implies that once one consumer has purchased the product, all other consumers cannot be prevented from benefiting from that product.

Take the example of the lighthouse. Once one particular fisherman has provided a lighthouse close to some dangerous rocks for his own benefit, then all other fishermen in the area will benefit equally from the lighthouse. Their advantage, however, is that they do not have to pay for this lighthouse: they have received a free ride on the back of someone else's purchase. The logical thing to do, then, would seem to be for all fishermen to sit back and to wait for one fisherman to be foolish enough to provide a lighthouse so that those not purchasing can benefit without paying. Unfortunately, the implication of this is that the lighthouse will never be provided: everyone waits for everyone else to provide it, and nothing happens.

That's why the government needs to provide public goods or subsidize the production so that private sectors firms are willing to produce them. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

6-Firm Behavior and the Organization of industry

66. Answer: A

A firm is said to be productively efficient when it is producing at the lowest point on the short run average cost curve (this is the point where marginal cost meets average total cost). A is correct. Choice B (an increase in production will decrease average total costs) refers to economy of scale, while Choice C (output per worker) refers to productivity. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

67. Answer: B

Let's analysis the given information. The profit maximizing output and price occurs when marginal cost equates with marginal revenue, or MR=MC. Marginal revenue is the change in total revenue with incremental units of output quantity, or the per unit change in the value Q*P. Since the firm's unit cost of production is constant at $60, we know that the marginal cost is horizontal at $60. Hence, profit maximization occurs when $\Delta(Q*P)/\Delta Q=60$. Looking at the table, this occurs between Q=400 and Q=500. Therefore, the profit maximizing output is Q=400, with a maximum profit of (400*180 - 400*60)=48,000. The firm makes a loss when TR<TC, which is when the price drops below $60. This occurs at Q>800. At Q=100, the firm's profit is 100*(270 - 60)=21000. 21,000. Therefore, only B is correct. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

68. Answer: C

Profit maximization in labor markets occurs when marginal resource cost equates with marginal revenue product (MRP=MRC). The marginal resource cost is constant at $100. At Q=3, the marginal revenue product is 110. At Q=4, the marginal revenue product is 90. Therefore, Q=3 workers is the profit-maximizing quantity. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

69. Answer: A

Answer A is correct. If all the farmers are selfish, they only take into account private costs and benefits. Since the private cost ($10) is greater than the private benefit ($8), none of the farmers will contribute. Answer B is incorrect because the described game is a Prisoner's Dilemma, in which only one Nash equilibrium exists. Answer C is incorrect because Kim's choice does not affect the individual payoffs of other farmers' decisions. Answer D is incorrect. If farmers have an infinite horizon of planning, they have reasons to come up with a mutually beneficial strategy and trust that all four farmers would follow the strategy because a violation would result in exclusion from the game. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

70. Answer: C

The cost of each portion of the cocktail is 0.3*3USD+0.2*0.5USD=1USD.
Therefore, she can make 20USD/1USD=20 portions of the cocktail. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

71. Answer: A

Economies of scale depicts a situation whereby the long run average total cost decreases as production scale increases. This makes A correct. Choice B, C, and D are against this definition. Choice D is irrelevant and incorrect. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

72. Answer: C

Profit is maximized when the marginal cost (MC) of production equals to the marginal revenue (MR), thus profit maximization is when MC = MR.
If MR > MC, marginal revenue exceeds marginal cost, then the profit maximizing firm should increase its output.
If MC > MR, marginal costs exceed additional revenue, then the profit maximizing firm should reduce its output.
When MC = MR there is no change in profits, that is, this is the level of output for profit maximization.

(Credit to Nicole Zhu from Wuxi Boston International School)

73. Answer: E

The marginal cost of production is the variable cost increase as an additional unit of output is produced. It is the additional cost when producing one extra unit of output. Marginal cost = Change in total costs ÷ Change in output. (Credit to Nicole Zhu from Wuxi Boston International School)

74. Answer: B

Marginal cost is the increase in total cost from producing one additional unit of a product. When producing the second unit, the total cost increases from $7 to $9, so the marginal cost is $2.

75. Answer: A

Fixed cost in this case is the total cost when quantity level is zero: $5.

76. Answer: A

A variable cost is a corporate expense that changes in proportion to how much a company produces or sells. Variable costs increase or decrease depending on a company's production or sales volume—they rise as production increases and fall as production decreases.

In a short-run perspective, variable costs typically show diminishing marginal returns, so that the marginal cost of producing higher levels of output rises. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

77. Answer: B

Marginal revenue calculated as marginal revenue=total revenue-(n-1)th output* unit price. Therefore, in this case the total revenue of selling all 5 worker produced shirts are $20*26=$520, the total revenue when selling the 4 workers produced shirts are $20*22=$440, thus the marginal revenue product of the 5th worker is $520-$440=$80. (Credit to Nicole Zhu from Wuxi Boston International School)

78. Answer: C

Total Fixed Cost = Total Cost - Total Variable Cost
= (Average Total Cost - Average Variable Cost) x Quantity
= ($10-$6) x 1000 = $4000
Therefore, C is correct answer. (Credit to Mingming Qian from Xiang Jiang International High School)

79. Answer: B

Marginal cost is the production of next unit of output, and it will always affect the average total cost. As long as marginal cost is less than average total cost, average total cost will fall. Once the marginal cost is more than average total cost, average total cost will increase.

Due to Change in Fixed Cost, we usually have the following formulas.
Marginal Cost = Change in Total Cost / Change in Quantity
= Change in Variable Cost / Change in Quantity

Therefore, Marginal cost also is equal to Change in Variable Cost. As long as marginal cost is less than average variable cost, average variable cost will fall. Once the marginal cost is more than average variable cost, average variable cost will increase.

Mathematically, we have the following relationship: MC=d(Q*AVC)/dQ = d(Q*ATC)/dQ. Therefore, at their minima, AVC and ATC must be equal to MC.

(Credit to Mingming Qian from Xiang Jiang International High School)

80. Answer: A

Economies of scale exists when long-run average total cost declines as output increases. Firms experience scale effects only in the long run. So, B and D are wrong choices. Economies of scale means that a doubling of plant size will produce more than double output. So, C is wrong. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

81. Answer: B

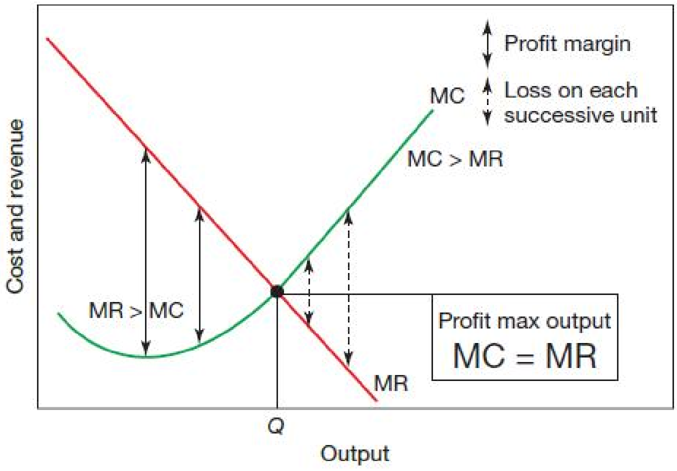
Profit maximization happens when MC=MR. Since the fixed cost increases, not the variable cost, the marginal cost and marginal revenue are still the same. So, according to profit maximization rule: MC=MR, Carla' s Candy Store should still produce 1,000 pounds. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

82. Answer: D

The law of diminishing returns applies in the short run, where there are fixed inputs. In the long run, all inputs are available to change and law of DMR will not exist anymore.

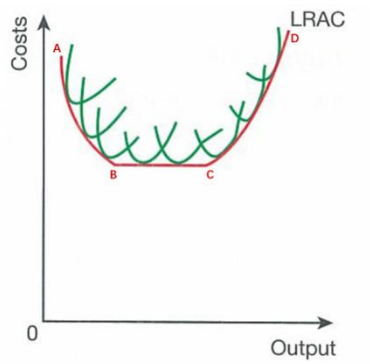
83. Answer: D

For Metro North, the cost of running the additional train is $4,000(which is the marginal cost (MC)) and it is expected that total revenue will rise to $103,500(the marginal revenue (MR) of running the additional train is expected to be $103,500- $100,000=$3,500). Thus MC($4,000) > MR($3,500). According to the profit maximization rule shown in below diagram, when MC>MR, there would be a loss on each successive unit produced by producers, thus Metro North should not run an additional train into New York City from New Haven. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)



84. Answer: B

If a firm increases its scale of production by increasing all factors of production by the same percentage, output increases by a greater percentage, e.g. if factor inputs increase by 10 per cent and output increases by 15 per cents then the firm is said to be experiencing increasing returns to scale. If on the other hand output increases by a smaller percentage then the firm is said to be experiencing decreasing returns to scale. Finally, if output increases by the same percentage as the increase in factor inputs, then the firm will be experiencing constant returns to scale. For the long-run average cost (LRAC) curve shown below, AB shows increasing returns to scale, BC shows constant returns to scale (the LRAC is horizontal), and CD shows decreasing returns to scale. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)



85. Answer: C

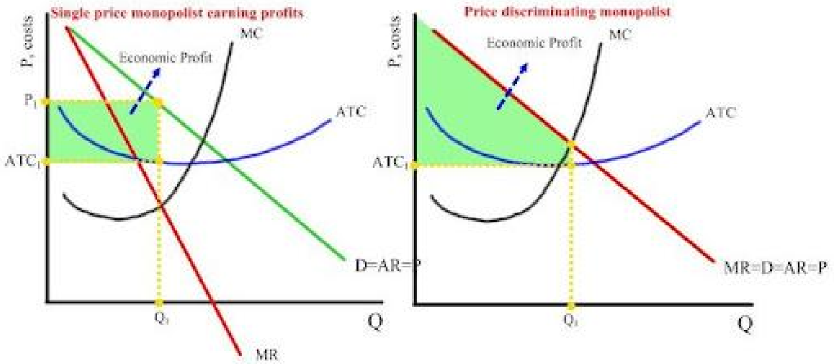
This story is about purchasing economies, it means as firms increase in scale, they increase their purchasing power with suppliers. Through bulk buying, they are able to purchase inputs more cheaply, so reducing average costs. US retail giant Walmart, which uses its purchasing power to stock goods in its stores at rock bottom prices. All major retailers behave in this way. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

7-Market Structure

86. Answer: E

This graph depicts the costs and demand curve for a typical natural monopoly. The profit-maximizing quantity produced by a monopoly is always at the intersect of its marginal revenue and marginal cost, which is Q0, while the price will correspond to this quantity according to the demand curve, P2.

87. Answer: C



As shown in the diagram above, with price discrimination, the monopoly firm earns higher total economic profits. With perfect price discrimination, every consumer is charged the price that he or she is willing to pay at maximum, rather than the price at which marginal revenue equates marginal cost. Since all available consumers are charged a relatively higher price and the firm's cost hasn't changed, total profits increase. Therefore C. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

88. Answer: B

It is important to understand that perfectly competitive firms earn normal profits in the long run. The long-run equilibrium price is therefore equal to the average cost. A constant cost, therefore, implies a constant equilibrium price. Therefore B. Let's analyze the given situation more deeply. An increase in demand causes the market price to increase in the short run. This causes existing firms to earn supernormal profits, which attracts new firms to enter the market. This increases the market supply and drags down the market price until the point where every firm earns normal profits again. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

89. Answer: C

Out of the five choices, only choice C is definitely price discrimination, as the movie ticket is priced based on different elasticities of demand. Others may have different costs of production, hence may be considered as a different good rather than the same good with price discrimination.

90. Answer: E

Lifting the regulation would reduce the market power of the monopoly and increase competition. This decreases the market price and increases the market quantity of output. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

91. Answer: A

Price-fixing is a common trick of a cartel and is a kind of firm collusion.

92. Answer: A

Natural monopolies are by definition monopolies due to the high start-up costs or economies of scale. As output increases, the long-run average total cost of the firm decreases, pushing prices down enough to drive out competitors with higher costs, which is known as economies of scale.

93. Answer: A

B is incorrect. In pure competition, products are identical. C is incorrect. In pure competition, there may have many firms in a single industry. D is incorrect. The firms in pure competition are price takers. E is incorrect. In the long run, industries in pure competition market earn zero economic profits. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

94. Answer: C

Due to the barriers to entry, new competitors cannot easily enter the market. In a perfectively competitive market, if firms earn profit, competitors entering the market shifts the AR curve and hence reduce profit for each firm.

95. Answer: B

The quantity demanded changes even when the price does not change at all, it means that the market for this product is perfectly elastic, so the market structure is perfect competition.

96. Answer: E

The demand curve for the firm and the industry is identical in a monopolistic market because there is only one firm in the industry by definition, i.e. the firm is the industry. This is not the case with all other market structures, since there is more than one firm. (Credit to Wenbin Zheng from HD Qingdao Wanda School)

97. Answer: A

In third-degree price discrimination, a seller charges a lower price in the market segment where demand is price elastic and charges a higher price where demand is price inelastic. They do this to maximise revenue, and thus profit. Consumers on the high PED market are likely to increase quantity demanded by a larger percentage than the fall in price, so the seller is likely to offer a low price in exchange for higher revenue. (Credit to Wenbin Zheng from HD Qingdao Wanda School)

98. Answer: D

A is incorrect. Dominant strategy is best for the player. It does not have to make everyone better off. B is incorrect. It may hurt the competitors. C is incorrect. The dominant strategy may not increase the total payoff for the player.

Dominant strategy is the strategy that is better than another strategy for one player, no matter how that player's opponents may play. D is correct. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

99. Answer: D

The productively efficient level of output is the level that firms produce at their minimum ATC. The question states that monopolists produce at output levels that are not productively efficient. That is to say, monopolists have no incentive to produce at their minimum ATC. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

100. Answer: C

Antitrust laws are statutes developed by governments to protect consumers from predatory business practices and ensure fair competition.

Core U.S. antitrust law was created by three pieces of legislation: the Sherman Anti-Trust Act of 1890, the Federal Trade Commission Act, and the Clayton Antitrust Act.

The first major piece is the Sherman Anti-Trust Act. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

101. Answer: C

Strategic behavior is self-interested economic actions that take into account the expected reactions of others. Strategic interaction is the actions that depends on rival’s behavior. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

102.Answer: C

Collusive oligopolists are tempted to engage in secret price cutting to increase sales and profit. The dominant strategy for company is to cheat (deviating from the agreed upon price and quantity). (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

103.Answer: C

C is correct. In a Nash equilibrium, each player is assumed to know the equilibrium strategies of the other players and no player has anything to gain by changing only their own strategy. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

104.Answer: A

Perfect price discrimination occurs when a business charges the maximum possible price for each unit consumed. Because prices vary among units, the firm captures all available consumer surplus for itself or the economic surplus. Furthermore, the situation is allocatively efficient since the marginal revenue curve aligns with the demand curve, causing the monopolist to produce where demand = marginal cost, or where demand = supply. As a result, there is no deadweight loss. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

105.Answer: B

The product differentiation is an approach to avoid pure competition. Product differentiation may entail physical or qualitative differences in the products themselves. Product differentiation creates a trade-off between consumer choice and productive efficiency. The stronger the product differentiation, the greater is the excess capacity and, therefore, the greater is the productive inefficiency. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

106.

Answer: A

MR=MC rule for profit maximization applies to all types of firms, so B is incorrect; as both oligopolists and monopolistic firms have some market power in the market, they are not price takers, so C is incorrect; and both of oligopolist and monopolistic firms have downward sloping curve, so D is incorrect.

For oligopoly and monopolistic companies, they sell similar or the same products as their competitors. In order to improve their profits, they need advertising and sales promotion to gain more customer attention or make their products differentiated. Therefore, the correct answer is A.
(Credit to Mingming Qian from Xiang Jiang International High School)

107.Answer: C

Since there are only two firms in the market, this is a duopoly (a type of oligopoly).

108.Answer: B

In perfect competition, a firm is a price taker and follow the market price. When the market and firm reach an equilibrium, the market price is equal to Marginal Revenue = Marginal Cost. It also means Market Demand is equal to Supply, and total surplus is maximized. (Credit to Mingming Qian from Xiang Jiang International High School)

109.Answer: A

A firm in a perfectly competitive industry usually produce goods and service, when marginal revenue is equal to marginal cost (MR=MC). Without considering externality, the firm will only consider its own marginal private cost and marginal private cost, regardless external benefits or costs it create. Therefore, A is correct answer. (Credit to Mingming Qian from Xiang Jiang International High School)

110.Answer: A

A perfectly competitive firm has many sellers and buyers, the same product and no barrier to entry or exit. A hot dog vendor in New York is very easy to set up and produce, and has many competitors and buyer in the market. Therefore, it is close to a perfectly competitive firm.

Other firms in this question have some barriers to entry, therefore they are not likely to be perfective competition firms. (Credit to Mingming Qian from Xiang Jiang International High School)

111.Answer: D

An increase in market demand will increase the market price. Firms are price takers, when the price rises, the demand curve faced by individual firms will shift upward.
Demand curves faced by firms will shift upward. A is wrong
Demand curve for firms will shift upward. B is wrong
The demand curves for firms are always perfectly elastic, no change. C is wrong
Profit=total revenue-total cost. When the demand increases, price rises, total revenue will increase. So, profit will increase. So D is right. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

112.Answer: A

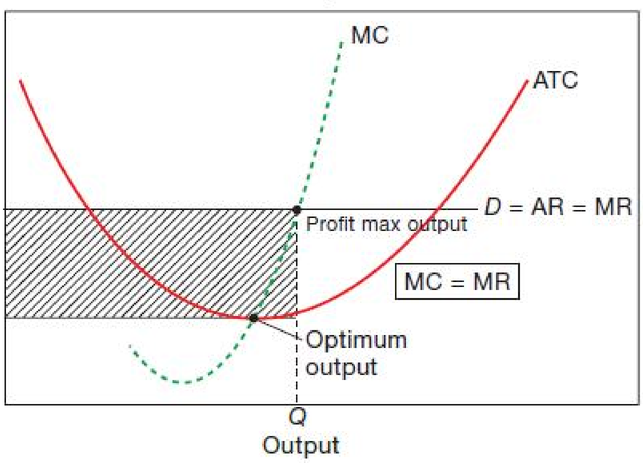
According to the Coase theorem, even in the presence of externalities, an economy can always reach an efficient solution as long as transaction cost——costs to individuals of making a deal——are sufficiently low. They can internalize the externalities. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

113.Answer: C

In competitive industry, each firm can only make normal profit in long run. So, in short run when firms cannot cover their total cost and the economic profit would be less than 0, some firms would shut down in SR. As some firms leave the market, the market supply of the good decreases, so the market price increases till P=ATC in the long run. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

114.Answer: B

Since there are infinitely many producers and all products are perfectly substitutable, a producer who raises its price to above the market price will face zero sales. Since there are infinitely many buyers in the market, a producer can sell any finite quantity it wishes to at the current price, giving it no incentive to drop the price below the market price. Therefore, competitive firms take the market price and do not deviate from it. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)



115.Answer: A

Since the Tommy' s Tires operates in a perfectly competitive market and sell at the profit maximizing output level (output where MC=MR), that is output Q shown in below diagram. At this level of output, price is higher than ATC, then more firms will enter the market in pursuit of abnormal profits shown in below shaded triangle area (which is total revenue minus total cost at output Q). (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

8-Economics of Labor Market

116.Answer: C

Specialization of labor usually causes productivity to increase because a specialized worker only focuses on a single job that he or she is best at and becomes better at it through repeated practicing. Therefore C. Answer A and B are trivial. Answer D is incorrect because if any, the connection between economic interdependence and specialization must be positive as countries produce less varieties of outputs. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

117.Answer: C

Cost of a labor here means the wage rate of this labor and marginal cost of labor here means wage rate of the next worker hired. In a perfectly competitive labor market, supply of labor is perfectly elastic, both firms and labors are price takers, so marginal cost of labor should be equal to the average cost of labor.

118.Answer: A

An increase in capital investment would improve the efficiency of capital goods, increasing the productivity of capital-using labor. Therefore A. Answer B is incorrect because decreasing the pay for corporate executives would probably cause managerial issues or attitudes toward workers, if any, decreasing their productivity. Answer C is incorrect because an increase in interest rates for business loans would decrease businesses' capital investments, possibly decreasing labor productivity. Answer D is incorrect because labor-saving technologies make it easier to workers to perform tasks, increasing both their productivity and the wage. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

9-Theory of Consumer Choice

119.Answer: A

A commitment device is a technique where someone makes it easier for themselves to avoid akrasia (acting against one's better judgment), particularly procrastination. Commitment devices have two major features. They are voluntarily adopted for use and they tie consequences to follow-through failures. Answer A is correct because it is voluntarily adopted (the student announces himself) and it ties consequences (contribute to charity) with follow-through failures (get a grade lower than B). Answer B is incorrect because the policy is aimed at the entire government body, not the leader himself/herself. Answer C and D are trivial. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

120.Answer: C

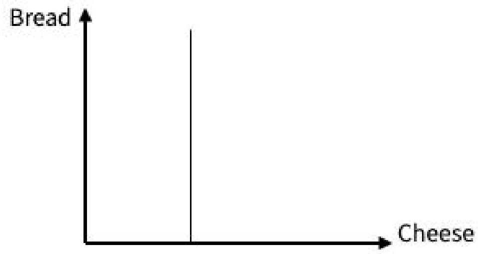
Income is limited, so is the quantity of goods a consumer could purchase. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

121.Answer: D

An indifference curve shows a combination of two goods that give a consumer equal satisfaction and utility thereby making the consumer indifferent. Rich always uses two packets of sugar with his coffee. Therefore, given each unit of coffee, the additional sugar over two units will not increase Rick’s satisfaction. Similarly, given each packet of sugar, the additional coffee that is more than a half unit will not increase the satisfaction. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

122.Answer: A

A budget line shows the combination of goods that can be afforded with current money. If the price of bread is zero, it means that a person can buy bread as much as he/she wants without payments. Therefore, he/she can use all the budget to buy cheeses (as shown in the following graph).



123.Answer: A

The indifference curve marks all combinations of goods that give the same total utility. To get from one point to another on the same indifference curve, one consumes more of one good and less of the other due to the nonsatiation presumption.

The law of diminishing marginal rates of substitution states that MRS decreases as one moves down a standard convex-shaped curve, which is the indifference curve. (Credit to Zhiyun Zheng from Shanghai Starriver Bilingual School)

124.Answer: C

A budget constraint shows the maximal combination of goods that a person can afford. A shift from B to C indicates that the person could buy more X1 using the same budget, which means a decrease in X1’s price.

125.Answer: D

At the utility-maximized combination, this equation stands: MUx/Px=MUy/Py. Only option D achieves this equation.

126.Answer: D

Using antitrust laws to break a natural monopoly will eradicate its economies of scale and potentially even make the price for consumers higher. Instead, the government may use a lump-sum tax and a subsidy to make the natural monopoly both socially optimized and in its break-even.

Macroeconomics

1-Basic Concepts

1. Answer: C

Diversification is the act or process of diversifying something in order to increase the variety or diversity of something, which helps to reduce risk of over-specialization. (Credit to Cuiyan Tan from Guangdong Country Garden School)

2. Answer: C

Natural experiments are used when controlled experimentation would be too difficult, expensive, or unethical as is the case with many human experiments.
B is not correct. Because the conclusion is made in the lab and can be tested through experiments.
A and D represent game theory, the control and experimental variables can be artificially manipulated by conductors.
C: In a natural experiment, the variables such as the economic data are influenced by nature or factors outside of the researchers' control. Researchers can only observe and analyze. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

2-GDP and Economic Growth

3. Answer: B

When the income level rises, provided that the marginal propensity to consume and marginal propensity to save hold constant, people tend to consume and save more. When unemployment increases, people will not have so much money to consume, so A is not correct. When the interest rate increases, people tend to save more, instead of consuming more, so C is not correct.

4. Answer: A

Either decrease in the income tax rate, or quantitative easing policy or buying assets on the open market can cause that people or businesses have more disposable income to spend, resulting in the growth of short-run GDP.

5. Answer: A

GDP=Consumption + Investment + Government Expenditure + (Export - Import) by expenditure approach. As seen in the formula, exports are counted in the measurement of GDP, but imports are removed from it, making **B** incorrect. Government production is also counted in the GDP (if the GDP is counted in output measure) as governmental activities also take place within the physical boundary of the country. In the calculation of GDP, the weight of goods and services are determined by their respective price, therefore it' s indeterminant that whether domestically consumed goods have more weight than exports. GDP have several measures. The output approach measures the total value added in the domestic production. The income approach measures the sum of all the incomes received from the domestic production (payments of the 4 factors of production). The expenditure approach measures the total spending on domestically produced goods and services (GDP=C+I+G+(X-M)). (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

6. **Answer: C**

Gross private domestic investment includes all kinds of tools, all constructions, changes in inventories, creation of new capital assets and no-investment transactions excluded.

7. **Answer: D**

Leftward shift of Aggregate Supply curve leads to fall in real GDP, but rise in GDP causes economic growth, so D is wrong.

8. **Answer: B**

GDP deflator in 2012= (Nominal GDP in 2012/Real GDP in 2012)*100 = (330/300)*100 = 110
GDP deflator in 2013 = (Nominal GDP in 2013/Real GDP in 2013)*100 = (360/309)*100 = 116.5
Inflation rate = (GDP deflator in 2013 - GDP deflator in 2012)/GDP deflator in 2012 = (116.5-110)/110 = 6%

9. **Answer: C**

Net private domestic investment = Business Fixed Non-residential Investment + Residential Construction + Change in Business Inventories - Depreciation = $1700 + $400 + $50 - $1500 = $650.

10. **Answer: C**

Higher standards of living depend on high productivity. It means some jobs needs high-education and skilled workers. Choice C is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

11. **Answer: A**

GDP=C+I+G+(X-M)=$7900+$1850+$1000+($1350-$1190) =$10910. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

12. **Answer: D**

Treat goods and service as inputs, it is the intermediate. Choice D is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

13.Answer: C

The frictional unemployment is the result of changes in the labor demands among firms, this result on changes of labor demands encourage the productivity and higher living standard, which is healthy for a growing economy. Choice C is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

14.Answer: B

As Honda is made in Japan, it is a part of GDP for Japan not for US
Choice B is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

15.Answer: A

Aggregate demand (AD) that is real GDP consists of four components, AD=C(Consumption)+I(Investment)+G(Government spending)+Net exports(X-M), when private investment increase by $50 billion while GDP remained the same, there should be a decrease of Consumption(C) by $50 billion or a decrease of Government spending(G) by $50 billion or a decrease of Net exports by $50 billion(that is export decrease by $50 billion or import increase by $50 billion) to keep real GDP constant. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

16.Answer: D

Inward oriented policy is the one in which trade and industrial incentives are biased in favour of production for domestic market over the export market. That's why D is the correct option. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

17.Answer: C

In economics, investment refers to firms increasing capital goods, such as machinery and tools. (Credit to Cuiyan Tan from Guangdong Country Garden School)

18.Answer: C

Political instability may cause social riot and unrest, which will disrupt production and worsen economic environment. Private investment will be reduced because producers may lose confidence and invest abroad, which is not beneficial for long-term economic growth. (Credit to Cuiyan Tan from Guangdong Country Garden School)

19. Answer: B

Increase in the capital stock indicates higher level of investment on capital goods, if more workers can be equipped with machines, which will increase efficiency and labour productivity, producing more goods and service, so standard of living will be improved. (Credit to Cuiyan Tan from Guangdong Country Garden School)

20. Answer: D

Nominal GDP for 2005=2*5000+400*1000=410000; Nominal GDP for 2006=3*4000+300*2000=612000. The base year is 2005, so real GDP for 2006=2*4000+400*2000=808000
(Credit to Cuiyan Tan from Guangdong Country Garden School)

21. Answer: B

The investment demand curve is downward sloping. When interest rate is higher, cost of borrowing increases, firms would be less likely to borrow for investment, so there is inverse relation between interest rate and investment. (Credit to Cuiyan Tan from Guangdong Country Garden School)

22. Answer: D

If technical progress raises productivity, there will be more output, so real GDP will increase. Meanwhile, as real GDP increases, GDP per capita and income will rise, people tend to save more and consume more. Therefore, equilibrium interest rate and saving will increase. (Credit to Cuiyan Tan from Guangdong Country Garden School)

23. Answer: D

The demand for loanable funds mainly comes from business investments. When interest rates are higher, the borrowing costs for business investments are higher, so the demand for loanable funds will decrease. The supply for loanable funds mainly comes from savings. When interest rates are higher, the interests received by savers are higher, so the supply of loanable funds will increase. Thus, the quantity of loanable funds supplied is positively related to interest rates, and the quantity of loanable funds demanded is negatively related to interest rates.

24. Answer: D

The supply of loanable funds curve is upward-sloping, indicating that people with loanable funds will be more willing and able to supply funds when price(interest rate)is higher. When interest rate increases, they would rather save money in financial institution than consume, since the opportunity cost (interest returns) will be higher. (Credit to Cuiyan Tan from Guangdong Country Garden School)

25. Answer: D

GDP (Y) = S + C + G, so S = Y - C -G or S = (Y - T - C) + (T - G). (Y - T - C) represents private saving, while (T - G) represents public saving. If taxes (T) are reduced with no change in government spending (G), public saving (T - G) would decrease; If people save all the money from the tax cut, private saving (Y - T - C) would increase. The increase in private saving would equal the decrease in public saving, causing the total national savings unchanged. Therefore, neither the demand nor the supply of loanable funds will change.

26. Answer: B

Investment is the addition to the capital stock of the economy (e.g. factories, machines, offices and stocks of materials, used to produce other goods and services). Advances in technology will raise productivity of capital goods and so will probably stimulate more investment. Similarly, a fall in the price of capital equipment and/or cost of installation of capital goods is likely to raise investment. Besides, if consumer demand rises, firms are likely to want to buy more capital equipment to expand their capacity. Similarly, a fall in the rate of interest is likely to stimulate a rise in investment. The cost of investment will fall. Firms that borrow to buy capital goods will find it cheaper and firms that use retained profits will find that the opportunity cost of investment will fall. Firms will also expect higher sales as lower interest rates will raise consumer demand. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

27. Answer: B

Investment is the addition to the capital stock of the economy (e.g. factories, machines, offices and stocks of materials, used to produce other goods and services). Investment only takes place if real products are created. Investment in human capital is investment in the education and training of workers. And investment in physical capital is investment in machinery, buildings, computers, etc. This is important not only because it contributes to aggregate demand in the current period, but because investment in new machinery enables higher production of goods in the future. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

3-Cost of Living

28. Answer: B

Normally the nominal interest consists of both the real interest rate and the expected inflation rate, however, a sudden and unexpected increase in inflation rate will benefit the borrowers because under a fixed nominal interest rate, increase in the inflation rate reduces the real interest rate, hence reduces their burden of paying back the money. Depositors, on the other hand, will be negatively influenced as the value of money that they' ve saved has depreciated. People with fixed income and pensions will be affected in a similar way, where their purchasing power will be reduced. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

29. Answer: A

Nominal interest rate = real interest rate + inflation rate, so when inflation rate increases, nominal interest rates will rise.

30. Answer: B

GDP annual rate of change= (2100M-2000M) /2000M=0.05=5%
GDP price index annual rate of change= (104.0-100.0) /100=4%
(Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

31. Answer: B

Inflation rate between 2011 and base year = [(104-100)/100}*100%= 4%
Real GDP in 2011=nominal GDP in 2011 divided by (1+inflation rate between 2011 and base year) = 2100/1.04=2019.

32. Answer: B

When unanticipated inflation occurs, the price of goods goes up, a fixed amount of income is able to buy less product as prices are higher, so the purchasing power of fixed wages and incomes falls.

33. Answer: B

The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them. Weights are based on the proportion of total expenditure spent on the different categories, reflecting the importance of different products to consumers. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

34. Answer: A

As real interest rate equals nominal interest rate minus inflation rate. When unexpected inflation occurs, the inflation rate goes up, real interest rate goes down, the interest the savers obtain decrease. So, Choice A is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

35. Answer: D

Inflation redistributes income away from certain groups in the economy and towards other groups. Redistribution arises in situations where certain groups lose some purchasing power and become worse off, while other groups gain purchasing power and become better off.

Lenders (creditors): People who lend money may be worse off due to inflation. In general, lending at a lower interest rate than the rate of inflation makes the lender (creditor) worse off at the end of the loan period.

Borrowers (debtors): People who borrow money may be better off due to inflation. In general, borrowing at a lower interest rate than the rate of inflation makes the borrower (debtor) better off at the end of the loan period. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

36. Answer: A

Real interest rate=nominal interest rate -inflation rate. If a nominal interest rate of 5 percent and the inflation rate is 10 percent, real interest rate= 5%-10%=-5 %
(Credit to Cuiyan Tan from Guangdong Country Garden School)

37. Answer: D

AD=C+I+G+X-M， GDP= 8000=5000+1500+I+ (-220), private investment=1720
(Credit to Cuiyan Tan from Guangdong Country Garden School)

38. Answer: B

A is incorrect, as increased production in the underground economy will understate the actual output since goods and services of underground economy will not be recorded. B is correct. Production for home use (non-market production) such as home-grown vegetables will not be recorded in calculation of GDP, so it will understate the actual output. D will not make an impact on estimation of GDP. (Credit to Cuiyan Tan from Guangdong Country Garden School)

39. Answer: A

If the value of assets increases just because the inflation rate rises, real value of assets does not increase in reality. In this situation, investors may lose money if they need to pay taxes on returns.

40. Answer: C

If inflation is steady and anticipated, it is good, so B and D are incorrect. Inflation does not necessarily reduce real GDP, such as Demand-pull inflation, so A is incorrect.
Inflation redistributes income arbitrarily, for example, borrowers will benefit and lenders or fixed income-earner suffer. (Credit to Cuiyan Tan from Guangdong Country Garden School)

41. Answer: D

Inflation redistributes income away from certain groups in the economy and towards other groups. Redistribution arises in situations where certain groups lose some purchasing power and become worse off, while other groups gain purchasing power and become better off.

---Lenders (creditors): People who lend money may be worse off due to inflation. In general, lending at a lower interest rate than the rate of inflation makes the lender (creditor) worse off at the end of the loan period.

---Borrowers (debtors): People who borrow money may be better off due to inflation. In general, borrowing at a lower interest rate than the rate of inflation makes the borrower (debtor) better off at the end of the loan period. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

4-Income Inequality and Unemployment

42. Answer: B

Efficiency wages are the wages paid by employers voluntarily (note: it is not a result of the negotiation with the trade union) that are higher than market wages to motivate workers to increase their productivity. The efficiency wage works because if the wage paid is higher than market wage in that particular firm, then workers will not be able to gain that wage again once being unemployed, thereby it increases productivity of workers. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

43. Answer: A

Minimum wage can be viewed as an example of an effective price floor, where it pushes the current market price higher. In the case of a labor market, higher market price means a higher wage rate, thereby more laborers (workers) are willing to supply, but in the same time, higher wage cause higher labor cost in the production, thereby less demands are available, causing a surplus (supply > demand, hence excess supply). (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

44. Answer: B

The demand for labor derives from the demand for products produced by labors. If the demand for the product increases, the demand for workers will increase too. The price of workers——the wage will increase too. In the labor market, demand for labors and supply of labors determines the wage of labors. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

45. Answer: B

Frictional unemployment is unemployment due to the time workers spend looking for employment.

Structure unemployment is unemployment that results when there are more people seeking jobs in a labor market than there are jobs available at the current wage rate.

Cyclical unemployment is the deviation of the actual rate of unemployment from the unemployment rate that arises from the effects of frictional plus structural.

And according to the context, the unemployment caused by recession is cyclical unemployment and the unemployment caused by skill mismatches is structure unemployment.

46. Answer: D

Before: Wage rate=$20, so total weekly income=$20*40hours=$800

After: wage rate increased by 25%, so wage rate=$25

Total weekly income constant, so working hours =800/$25=32hours

The total number of working hours decrease from 40 to 32, fall by 20%

A and B are wrong

Free hours=24*7-32=136hours

So total number of free hours increase from 128 to 136, increase by 6.25%

(Credit to Yingjie Sun from Jinling High School Hexi Campus)

47. Answer: C

An increase in the productivity of workers will cause increase in marginal product (MP). And because demand for labor is marginal product revenue (MRP), and MRP=MR*MP. Thus, the demand for labor increases and demand curve of labor shift outwards due to higher MP, higher demand for labor leads to higher average wages and higher number of workers hired. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

48. Answer: C

Cyclical unemployment occurs during the downturns of the business cycle, when the economy is in a recessionary gap. The downturn is seen as arising from declining or low aggregate demand (AD), and so is also known as demand-deficient unemployment. As real GDP falls due to a fall in AD, unemployment increases because firms lay off workers. In the upturn of the business cycle, as real GDP increases, the recessionary gap becomes smaller and cyclical unemployment falls. When the economy produces real GDP at the level of potential output, there is no longer any cyclical unemployment. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

49.

Answer: A

Structural unemployment is a type of unemployment which happens due to the difference in the skills of the workers available in the economy and the skills which are required by the employers. Therefore, providing training for unemployed individuals will help to decrease structural unemployment.

50. Answer: B

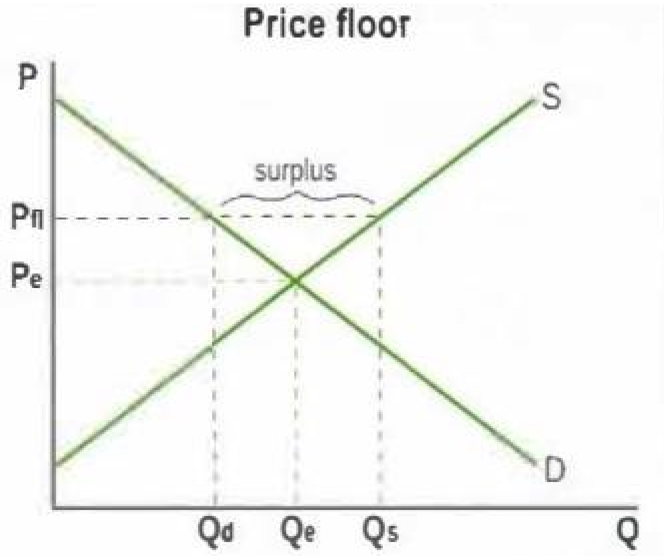
Efficiency wages are wages that employers set above the equilibrium wage rate as an incentive for better employee performance. Actions by firms may also contribute to structural unemployment. Firms may choose to pay efficiency wages as an incentive for their workers to deliver better performance. Employers may feel the need for such incentives for several reasons. For example, employers often have difficulty observing directly how hard an employee works. They can, however, elicit more work effort by paying above-market wages: employees receiving these higher wages are more likely to work harder to ensure that they aren’t fired, which would cause them to lose their higher wages. When many firms pay efficiency wages, the result is a pool of workers who want jobs but can’t find them. So, the use of efficiency wages by firms leads to structural unemployment. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

51. Answer: C

When minimum wage is above the equilibrium wage, there will be excess supply of labor compared to demand and therefore unemployment rate will rise. (Credit to Cuiyan Tan from Guangdong Country Garden School)

52. Answer: C

Minimum wage is an example of price floor, as is shown in diagram, it will lead to surplus, which means some workers will become unemployed. Fred is a low-skilled worker, so he may concern about whether he will be redundant. (Credit to Cuiyan Tan from Guangdong Country Garden School)



53. Answer: A

If the capital stock increases faster than employment, Capital-labour Ratio will be higher, more workers can be equipped with machine, which will increase efficiency and labour productivity, contributing to more output. (Credit to Cuiyan Tan from Guangdong Country Garden School)

54. Answer: B

Efficiency wage is a kind of incentive and salary system that enterprises or other organizations pay employees much higher than the market average level to encourage employees to work hard. Efficiency wages do not pay employees according to their work efficiency, but pay them above the market average to improve their work efficiency. (Credit to Cuiyan Tan from Guangdong Country Garden School)

5-Aggregate Demand and Aggregate Supply

55. Answer: C

An increase in the ratio of household consumption to national income is similar to an increase in marginal propensity to consume. In both cases, the consumption component of aggregate demand will increase under the same national income.

56. Answer: D

SRAS shows the relationship between the price level and real GDP. Therefore, price level is the independent variable and not constant. Except for the price level, all other variables being equal. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

57. Answer: A

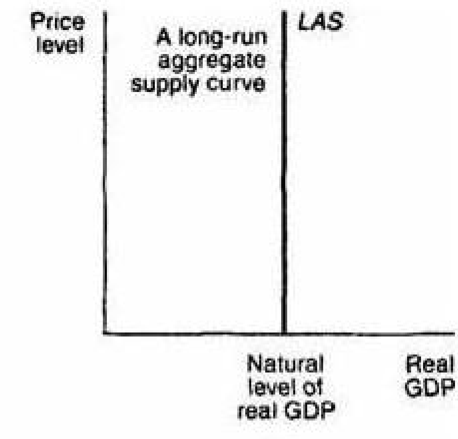
When consumers think they are going to have more income, they will tend to consume more currently and thus increase consumption. Since aggregate demand =C+I+G+X-M, the increase in C increases AD and then increases GDP. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

58. Answer: B

Tax policy influences aggregate demand through investment, consumption, net export, and etc. Choice B is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

59. Answer: D

According to diagram as follows, LRAS is vertical as in the long run, all resources have been fully used up in most efficient way, the output is the potential output. (Credit to Cuiyan Tan from Guangdong Country Garden School)



60. Answer: D

For demand-pull inflation, to bring inflation down, government may adopt contractionary demand-side policy, which will shift AD to left, leading to unemployment and lower level of output/GDP. (Credit to Cuiyan Tan from Guangdong Country Garden School)

61. Answer: D

Companies purchase less equipment and machinery, indicating less investment on capital goods.

Investment is a component of AD, with lower I, assume others remain the same, aggregate demand curve shifts left. (Credit to Cuiyan Tan from Guangdong Country Garden School)

62. Answer: D

The wealth effect, interest rate effect, and foreign trade effect helps to explain why there is inverse relation between price level and real GDP/ output of the aggregate demand curve. (Credit to Cuiyan Tan from Guangdong Country Garden School)

63. Answer: D

Price level will cause movements along the aggregate supply curve. All the other options will cause shift to the whole aggregate supply curve. (Credit to Cuiyan Tan from Guangdong Country Garden School)

64. Answer: D

There are four main causes of a shift in the SRAS curve. These are:
1. A change in the price of factors of production: A rise in wage rates, not matched by an increase in labor productivity, and raw material costs will cause a decrease in SRAS, shifting the curve to the left.
2. A change in taxes on firms: A reduction in corporation tax or indirect taxes will cause an increase in SRAS.
3. A change in factor productivity/quality of resources: A rise in labor productivity and/or capital productivity will cause an increase in aggregate supply both in the short and long run, shifting the curve to the right.
4. A change in the quantity of resources: In the short run the supply of inputs may be influenced by supply side shocks including natural disasters. These shocks may not have a significant impact on productive potential in the long run. The factors that will cause an increase in the quantity of resources in the long run will also increase SRAS. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

6-Business Cycle and Phillips Curve

65. Answer: D

The Phillips curve traces a set of combinations of rates of unemployment and inflation: it shows the short-run trade-off between inflation and unemployment: to expand employment, the government may adopt expansionary monetary policy which means greater money supply and higher risk of inflation. (Credit to Cuiyan Tan from Guangdong Country Garden School)

66. Answer: D

Major causes of the initial subprime mortgage crisis and following Great Recession include the international trade imbalances, lax lending standards contributing to high levels of developed country household debt, real-estate bubbles that have since burst, and the down payment and negative equity that triggered underwater mortgage.

67. Answer: A

The economy is producing at full capacity when it is producing at the long run equilibrium output, neither a recessionary gap nor a positive gap. It has no relevance of balance of trade. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

68. Answer: E

In a typical trade cycle, starting from a trough (the lowest point of economic performances), an economy is likely to subsequently experience a recovery (an upturn), a peak (highest point), and a recession (a downturn). (Credit to Wenbin Zheng from HD Qingdao Wanda School)

69. Answer: D

Stable Aggregate Demand means that there is no possibility for demand-push or demand-pull inflation. However, decrease in Aggregate Supply (leftward shifts of aggregate supply means a decrease in aggregate supply) implies the decrease in output and high unemployment. This circumstance can be stagflation. In addition, during 1970s, America endured a harsh stagflation because of decrease in the supply of oil.

70. Answer: D

One of the determinants of aggregate demand is consumer confidence. Consumer confidence is a measure of how optimistic consumers are about their future income and the future of the economy. If consumers expect their incomes to increase, or if they are optimistic about the future of the economy, they are likely to spend more on buying goods and services, and the AD curve shifts to the right. Low consumer confidence indicates expectations of falling incomes and worsening economic conditions, due to fears of cuts in wages or unemployment, causing decreases in spending, appearing as a leftward shift of the AD curve. And the result will be the price level will fall and real output will fall as well. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

71. Answer: A

Milton Friedman (1912 - 2006) argues that inflation is the result of an excessive growth of the money supply (i.e. when money supplies grows faster than real GDP). He believes that the main role of governments or central banks is thus to control money supply. He also maintains that attempts to reduce unemployment by increasing government spending will only succeed in raising inflation in the long run. Instead, he argues that the solution is a more competitive private marketplace.

While previous economists, including Milton Friedman, had argued that people adapt their inflation expectations to account for the effects of expansionary monetary policy, Phelps is recognized as the first to formally model this phenomenon. Phelps' s model shows how monetary policy can create a short-run tradeoff between inflation and unemployment (a downward-sloping Phillips curve), but in the long run, the Phillips curve is essentially vertical at the natural rate of unemployment. This means that because workers adjust their wage demands based on the observed effect of monetary policy on inflation, in the long run, expansionary monetary policy is not an effective tool to reduce the unemployment rate; it just creates more inflation. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

72. Answer: A

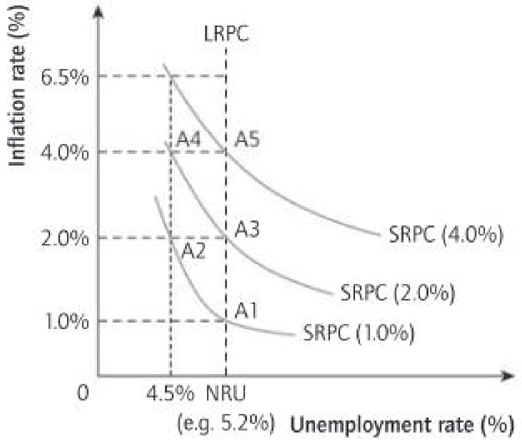
During recession, central bank adopts loose monetary policy by increasing money supply and decreasing interest rate. If banks lower discount rate, it will increase money supply, more loans could be provided to firms / households to make investment and consumption, helping to boost economy. (Credit to Cuiyan Tan from Guangdong Country Garden School)

73. Answer: C

Technology does affect output in the short run, so A is incorrect. The skill level of the workforce affects output in the short run as well, B is incorrect. In short run, it is assumed that price of factors of production remain constant. So, C is correct. (Credit to Cuiyan Tan from Guangdong Country Garden School)

74. Answer: C

According to the LRPC diagram, the long-run Phillips curve is vertical at the natural rate of unemployment (NRU). (Credit to Cuiyan Tan from Guangdong Country Garden School)



75. Answer: B

During the Great Depression, there was severe unemployment and deflation. Federal Reserve should adopt loose monetary policy by lowering interest rate and increasing money supply so as to boost economy. Failure to do so will cause AD shifting to left, and the consequence is more serious. (Credit to Cuiyan Tan from Guangdong Country Garden School)

76. Answer: D

Depression happens when the economy enters severe and prolonged recession. This is the feature of depression, such as 1920s the great Depression in USA. (Credit to Cuiyan Tan from Guangdong Country Garden School)

77. Answer: B

Actual economic growth refers to an increase in real GDP (i.e. the economy produces more goods and services). Potential economic growth refers to an increase in the economy' s potential (or full-employment) output (i.e. the economy is capable of producing more goods and services). GDP counts all domestically produced goods and services. One of the limitations of GDP is unrecorded economic activity (i.e. hidden economy) and this is the main reason why the actual output differs from officially measured GDP. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

7-Monetary Market

78. Answer: B

When an asset functions as a medium of exchange, people can use it to exchange goods, triggering transaction.

79. Answer: E

Rule of 72 is defined by: the years required for compound interest to double the original amount of money multiplied by the interest rate is approximately 72. This question tests on the concept, but once you know that this is regarding personal finance, there is only one choice left.

80. Answer: D

From \$5,000 to \$10,000, the amount of money doubles. According to Rule of 72, Number of Years to double = 72/annual rate of return = 72/2.5 = 29 years. (The Rule of 72 is a simplified formula that calculates how long it'll take for an investment to double in value, based on its rate of return.)

81. Answer: B

When the interest rate falls, it will bring less gain by holding interest-yielding assets. People would prefer to hold more liquid forms of money, so they can consume more goods and services. (Credit to Cuiyan Tan from Guangdong Country Garden School)

82. Answer: A

The legal reserve requirement is the minimum amount of reserves the central bank requires a bank to hold. Commercial banks cannot lend out all the deposits they take in. They must keep a certain proportion of the deposits at the central bank or in the form of cash on hand. The purpose of reserve requirements is to ensure that commercial banks have adequate liquidity in the event of sudden withdrawals of bank deposits. (Credit to Cuiyan Tan from Guangdong Country Garden School)

83. Answer: B

The money market contains a demand curve and a supply curve of money. The demand curve is a negative association between interest rate and quantity of money. The supply curve is a vertical line that can be shifted by the Fed. When the supply curve shifts to the left, its new intercept with the demand curve would be at the higher interest rate.

84. Answer: D

When commercial banks increase loans to businesses and consumers. Consumers and businesses will have more money to spend or invest, so spending power will increase. A is wrong. Monetary policy has no close relevance to government control. B is wrong. The banks will loan out their excess reserves, so excess reserves will decrease, C is wrong. Loans will generate a money multiplier and increase money supply. D is right. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

85. Answer: C

A primary market is where the securities are created while the secondary market is where existing securities are traded.

86. Answer: A

When Aunt Bee takes $10,000 out of her shoe box and deposits it in her bank, bank can lend more money out, so more money will flow into banking system, which helps bank create money. Hence, A is correct. Other options cannot make more money flow into banking system.

87. Answer: B

Natural rate of unemployment is the unemployment rate when the economy achieves full employment. When the economy is in equilibrium at the natural rate of unemployment, increasing the supply of money will cause surplus of money in loanable fund market, decreasing interest rates.

88. Answer: D

FOMC buys bond through its cash, which will increase money supply in Hometown Bank. And the Bank can use the money from FOMC to make more loan. D is Correct.
For A and C, buying bond will increase the money supply, incorrect.
For B, because of money creation, $1000 of base money will create more money through loans. Incorrect.
For E, Bonds are not short of required reserves, thus buying back bonds won' t have impact on overall reserves.
(Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

89. Answer: A

In money supply market, when money supply decreased, the market supply curve shifts inwards, increases the interest rate. Thus, the cost of borrowing increases, investment will be discouraged. When investment decreases, AD decreases and shift inwards, hence GDP decreases, A. (Credit to Jerry Jin from Wuhan Britain-China School)

90. Answer: C

The discount rate is the interest rate charged by the Federal Reserve Bank to commercial banks and other financial institutions for loans. (Credit to Nicole Zhu from Wuxi Boston International School)

91. Answer: A

Mutual funds offer diversification or access to a wider variety of investments than an individual investor could afford to buy. That involves reducing the risk to your assets by buying a mix of stocks from different industries and investments of different types. For example, buying both retail and industrial stocks reduces the impact on your portfolio of a poor quarter in one of those sectors. And putting some of your money in bonds protects you from a precipitous drop in stocks. (Credit to Zhiqiang Ma from ULink College of Suzhou Industrial Park)

92. Answer: A

Market for loanable funds means that households will be influenced by the rate of interest in making saving decisions, which will then determine the quantity of loanable funds available for firms to borrow for investment. The rate of interest can be interpreted as being the opportunity cost of holding money. From a firm’s point of view, it may be seen as the cost of borrowing. For example, suppose that a firm is considering undertaking an investment project. The rate of interest represents the cost of borrowing the funds needed in order to finance the investment. The higher the rate of interest is, the less investment projects will be seen as being profitable. If the firm is intending to finance its investment from past profits, the interest rate is still pertinent, as it then represents the return that the firm could obtain by purchasing a financial asset instead of undertaking the investment. Therefore, the rate of interest is important in the decision-making process. The rate of interest is also important to households, to whom it may represent the return on saving. Households may be encouraged to save more if the return on their saving is relatively high, whereas when the rate of interest is low, the incentive to save is correspondingly low.

A real interest rate is the interest rate that takes inflation into account. This means it adjusts for inflation and gives the real rate of a bond or loan. To calculate the real interest rate, you first need the nominal interest rate. The calculation used to find the real interest rate is the nominal interest rate minus the actual or expected inflation rate. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

93. Answer: A

In order to alter the money supply, the Fed can change reserve requirements. If the Fed reduces the required reserve ratio, banks will lend a larger percentage of their deposits, leading to more loans and an increase in the money supply via the money multiplier. Alternatively, if the Fed increases the required reserve ratio, banks are forced to reduce their lending, leading to a fall in the money supply via the money multiplier. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

94. Answer: A

Injection means an addition to the circular flow, comprising investment, government expenditure and exports. The multiplier effect happens all the time in an economy. It represents the amount by which any change in injections (J) is increased or decreased to give the final change in national income. If a government, for example, increases its expenditure, this results in a greater change in national income. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

95. Answer: C

The value of multiplier = 1/(1-marginal propensity to consume) = 1/(1-0.5) = 2

96. Answer: A

Let output be Y, consumption C, investment I, saving S; then suppose loanable funds market is in equilibrium we have I=S=Y-C, so that Y=C+I: total spending (consumption +investment spending) is equal to output Y; suppose the loanable funds market is not in equilibrium so that I<S=Y-C, then Y>C+I: output Y now is larger than total spending (C+I), so that the difference would be invested abroad as capital outflow. (Credit to Cuiyan Tan from Guangdong Country Garden School)

97. Answer: A

According to the equation of exchange, M (money supply) * V (velocity of money) = P (price level) * Y (real output), so the average price of goods in this case = (M*V)/Y = ($300*3)/1000 = $0.90.

98. Answer: C

Bartering is the exchange of goods and services between two or more parties without the use of money. It is the oldest form of commerce. Individuals and companies barter goods and services between each other based on equivalent estimates of prices and goods. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

99. Answer: A

Because economy is in equilibrium, loanable funds market is in equilibrium which means investment spending is equal to supply of loanable funds. (Credit to Cuiyan Tan from Guangdong Country Garden School)

100. Answer: D

When there is inflation, the price level increases. All buyers including consumers, firms and government will demand more money for consumption, investment and spending, so the money demand curve will shift to the right. (Credit to Cuiyan Tan from Guangdong Country Garden School)

101. Answer: C

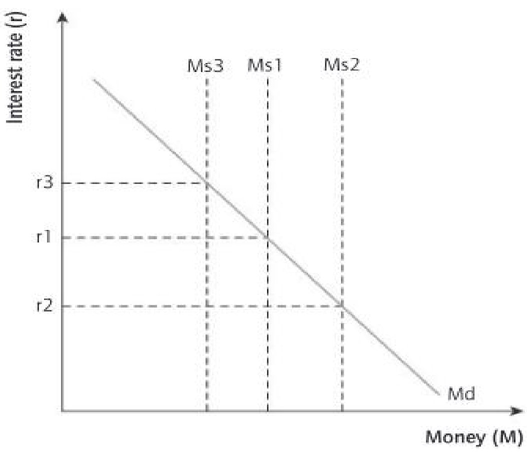
The real interest rate = nominal interest rate -inflation rate. If the nominal interest rate is 10%, the expected rate of inflation is 7%, then the real interest rate is 10%-7%=3% (Credit to Cuiyan Tan from Guangdong Country Garden School)

102.Answer: D

Reserves refer to the deposits set aside by financial institutions at the central bank to ensure customers' withdrawal of deposits and requirements for capital liquidation, such as deposits at the central banks, coin and paper currency in bank vaults. (Credit to Cuiyan Tan from Guangdong Country Garden School)

103.Answer: C

As the diagram shows, when money supply intersects with money demand, there will be equilibrium interest rate. (Credit to Cuiyan Tan from Guangdong Country Garden School)



104.Answer: B

If the supply of money exceeds the amount of money people want to hold, excessive supply of money will cause inflation, price level will increase. It will be easier for people to borrow or access to money, so they tend to consume more. (Credit to Cuiyan Tan from Guangdong Country Garden School)

105.Answer: D

Demand deposits are bank deposits that can be withdrawn, deposited, and transferred at any time without any prior notice. So, it is very liquid, close to cash. Time deposits are also called certificates of deposit. A deposit whose maturity and interest rate are agreed upon by the bank and the depositor in advance, and whose principal and interest are paid upon maturity. So time deposits are less liquid than demand deposits. (Credit to Cuiyan Tan from Guangdong Country Garden School)

106.Answer: B

According to Rule of 115, the time it will take to triple money = 115/interest rate = 115/20 = 6.

107.Answer: B

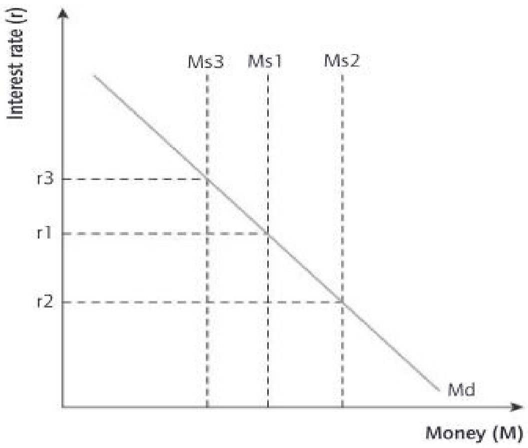
This is the definition of present value (amount of money today that would be needed to produce a given future amount of money, using prevailing interest rates). (Credit to Cuiyan Tan from Guangdong Country Garden School)

108.Answer: D

The money supply curve is vertical because it is fixed by central bank during particular time. (Credit to Cuiyan Tan from Guangdong Country Garden School)

109.Answer: C

As is shown in diagram, when Fed increases the money supply, shifting MS1 to MS2, the interest rate decreases from r1 to r2. With lower interest rate, cost of borrowing is lower, consumers will increase spending. (Credit to Cuiyan Tan from Guangdong Country Garden School)



110.Answer: A

The money multiplier M=1/R, where R=1/0.25=4, so 5000 yuan through the bank's money multiplier, the money supply becomes MS=5000x4=20000. The amount of money potentially created by the banking system is 20,000 dollars minus 5000(initial deposit), so the bank created 15,000 dollars. (Credit to Cuiyan Tan from Guangdong Country Garden School)

111.Answer: A

Open Market Operation refers to a monetary policy means by which the central bank openly buys and sells securities in the financial Market in order to change the reserve requirements of commercial banks and other depository monetary institutions, thus affecting the money supply and interest rates to achieve monetary policy objectives. Open market operation is the main monetary policy tool for the central bank to deal with base money and adjust market liquidity. Through securities and foreign exchange transactions between the central bank and designated dealers, the goal of monetary policy regulation is realized. It is the most effective and frequently used tool adopted by central bank. (Credit to Cuiyan Tan from Guangdong Country Garden School)

112.Answer: B

If $2,000 is saved in a financial instrument, such as a bank, the bank pays an annual interest rate of 20 percent for 6 years. $2,000* (1+20%)^6= 5972 (Round to the nearest dollar.) (Credit to Cuiyan Tan from Guangdong Country Garden School)

113.Answer: A

Loanable funds bring together savers who are supplying the funds and borrowers who are demanding funds. There are three major demands for loanable funds: 1. households for the purchase of goods and services. 2. firms for investment. 3. governments to fund any deficit. Any change in the central bank's interest rate will lead to other financial institutions, such as banks, changing their savings and lending rates. When rate of interest is higher, the cost of borrowing will be higher and therefore borrowing by firms will be reduced. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

114.Answer: B

The stock market refers to the collection of markets and exchanges where regular activities of buying, selling, and issuance of shares of publicly-held companies take place. Though it is called a stock market or equity market and is primarily known for trading stocks/equities, other financial securities - like exchange traded funds (ETF), corporate bonds and derivatives based on stocks, commodities, currencies, and bonds - are also traded in the stock markets. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

8-Macroeconomics Policies

115.Answer: A

The Bank of England is an example of central bank, and central bank is in charge of monetary policies. Fiscal policies are conducted by the government. Exchange rate policy is also conducted by the central bank rather than the government. Fiscal policy can affect the pattern of economic activity by changing the tax rate and government spending. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

116.Answer: C

A recession can be defined as a sustained period of weak or negative growth in real GDP (output) that is accompanied by a significant rise in the unemployment rate. To get out of this period, offer lower discount rate will encourage business to increase output. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

117.Answer: D

Reduction in the tax level is included as a component of expansionary fiscal policy. Expansionary fiscal policy is a governmental measure to stimulate the aggregate demand (mainly encourage increase in consumption and investment) in the economy, but with a cost of higher inflation rates. Interest rate, on the other hand, is irrelevant to the fiscal policy, rather, it’ s part of the monetary policy. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

118.Answer: A

The basic objective of expansionary policy is to boost aggregate demand to make up for shortfalls in private demand. It is based on the ideas of Keynesian economics, particularly the idea that the main cause of recessions is a deficiency in aggregate demand. Expansionary policy is intended to boost business investment and consumer spending by injecting money into the economy either through direct government deficit spending or increased lending to businesses and consumers.
Lowering the federal funds rate is a common tool used by the Federal Reserve to stimulate economic activity. By lowering the rate, it becomes cheaper for banks to borrow money, which encourages them to lend more to businesses and consumers. This increased lending stimulates spending and investment, thereby helping to boost economic growth during a recession. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

119.Answer: A

Money policy includes reserve requirements, federal funds rate, and open market operation. During a period of low unemployment, the Fed needs to adopt a tight monetary policy to fight high inflation, that is raising the federal funds rate or raising the reserve requirements for banks or sell bonds to decrease the money supply. So, B and D are wrong. C is fiscal policy rather than monetary policy. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

120.Answer: D

Liquidity trap refers to an economic situation in which interest rates are very low and savings rates are high, rending monetary policy ineffective. During a liquidity trap, consumers choose to avoid bonds and keep their funds in cash savings because of the prevailing belief that interest rates could soon rise. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

121.Answer: C

People would demand a higher interest rate to compensate for the risk.
So the correct statements should be: a lower interest rate is charged on loans with less risk of default. A higher interest rate is charged on loans with more risk of default. (Credit to Yingjie Sun from Jinling High School Hexi Campus)

122.Answer: D

Fiscal policy is a demand-side policy which is used to change aggregate demand by changing government expenditure or taxation.
Inflation is related to price level. Higher aggregate demand, higher price level. Lower aggregate demand, lower price level.
If government wants to reduce inflation which means decrease aggregate demand, it can either reduce government spending or increase taxes.
Monetary policy is a demand-side policy, but it is used to change money supply.

123.Answer: E

The 1970s was a time of high inflation and unemployment, collectively referred to as "stagflation," which led to the enactment of the Reform Act in November 1977. By the 1970s, the gold standard had been abandoned and the worsening inflation and unemployment experience called into question the conduct of monetary policy. The 1977 Reform Act amended the original act by explicitly directing the Federal Reserve to "maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote the goals of maximum employment, stable prices, and moderate long-term interest rates."

124.Answer: B

According to the quantity theory of money (MV=PY), when the economy is growing at 3% per year, the Federal Reserve should increase the money supply in order to keep current inflation status.

125.Answer: E

Policies can be either expansionary or contractionary, the main purpose of expansionary policies is economics growth, while one of main purposes of contractionary is pulling back inflation. Since economy is healthy and undergoing economic growth, thus there's no need to alter policies. (Credit to Jerry Jin from Wuhan Britain-China School)

126.Answer: B

Loose monetary policy refers to decrease in interest rate, decrease in exchange rate, and increase in money supply to boost aggregate demand. Thus, higher AD leads to lower unemployment rate. And besides, Low interest rate will lead to lower borrowing cost for firms and encourage firms to borrow more, investment and stock market activity will increase. An easy bank credit means that people borrow money more easily, so people tend to borrow more money to buy houses. And low inflation will generate optimism about macroeconomic environment, leading to further more borrowing and more investment in housing industry and stock market. Therefore, all these factors contribute to asset bubbles. (Credit to Li Zhang from Guangdong Experimental High School AP International Curriculum)

127.Answer: E

Positive spending multiplier effect results in the total change in national income that results from an increase in government spending. GDP = C + I + G + (X - M). The government spending is an injection in the circular flow of income. The government tends to spend on goods and services, such as public and merit goods, therefore, households will have more money to consume, GDP will increase by more than $1 million. (Credit to Nicole Zhu from Wuxi Boston International School)

128.Answer: E

The Federal Reserve raised the target federal funds rate only once between 2009 and 2016, it shows that the Fed wanted to keep a relatively low interest rate in order to stimulate the economy, which reveals the low growth of economy at that time.

129.Answer: B

Open market strategy is the tool that Federal Reserve uses to increase or decrease money supply. Federal Reserve can either choose decreasing reserve requirement or decrease discount rate, or to purchase government securities to increase money supply. Hence B. (Credit to Jerry Jin from Wuhan Britain-China School)

130.Answer: B

The Federal Reserve has three main policy tools at its disposal: reserve requirements, the discount rate, and, perhaps most importantly, open-market operations. The discount rate is the interest rate the Fed charges on those loans. Normally, the discount rate is set above the federal funds rate in order to discourage banks from turning to the Fed when they are in need of reserves. In order to alter the money supply, the Fed can change the discount rate. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

131.Answer: B

Required reserve = demand deposit * reserve requirement rate = $100,000*20% = $20,000
Excess reserve = total reserve - required reserve = $80,000 - $20,000 = $60,000

132.Answer: D

Money multiplier is the ratio of the money supply to the monetary base. Most importantly, this tells us the total number of dollars created in the banking system by each $1 addition to the monetary base. In a simple situation in which banks hold no excess reserves and all cash is deposited in banks, the money multiplier is 1/rr. Large excess reserves—funds not lent out to potential borrowers—increased the monetary base without increasing the money supply. It was as if that money had "leaked" out of the money multiplier process and into excess reserves held by banks, reducing the size of the money multiplier. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

133.Answer: D

The most important instrument used by central banks to influence the supply of money is called open market operations When using open market operations to buy government bonds from commercial banks, the payments for the bonds received by the commercial banks increase their excess reserves, which they can use to make more loans, and therefore the money supply increases. Therefore, the interest rate will be lower. And a decrease in interest rates is intended to increase consumer and business borrowing and hence spending (higher C and I), and therefore shift AD to the right. If the central bank wants to increase the interest rate, it sells bonds to commercial banks; as the banks must pay the central bank for these, their excess reserves and therefore their lending ability are reduced, and the money supply is lowered. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

134.Answer: A

Aggregate expenditure (AE) is the total amount that will be spent at different levels of GDP in a given time period. It is made up of consumption (C), investment (I), government spending (G) and net exports; that is, exports minus imports (X – M). When the federal sells bonds to commercial banks; as the banks must pay the central bank for these, their excess reserves and therefore their lending ability are reduced, the money supply is lowered and the AE is reduced as well. (Credit to Yifan Huang from SSFBC - The High School Affiliated to Shaanxi Normal University)

135.Answer: B

Sweeping decreases in income tax rates indicates expansionary fiscal policy, which helps to increase consumption by households since they will have more disposable income due to tax cut . Higher consumption will lead to greater demand for money, pushing up interest rates. (Credit to Cuiyan Tan from Guangdong Country Garden School)

136.Answer: B

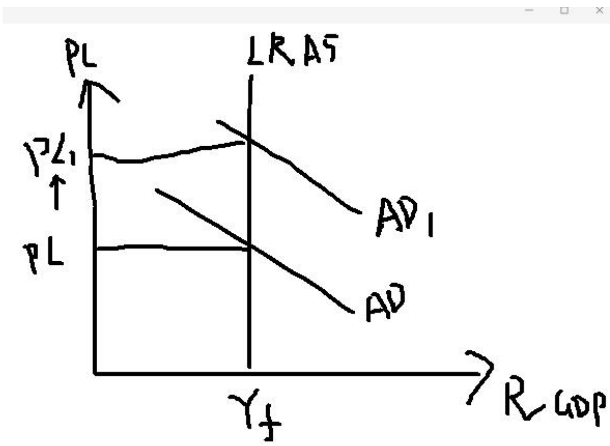
The crowding-out effect is when government tries to increase expenditures to boost economy, but government runs budget deficit, so it has to borrow money to finance spending, which will push up interest rate and reduce investment by firms. (Credit to Cuiyan Tan from Guangdong Country Garden School)

137.Answer: B

When government want to increase spending and boost economy, it will adopt loose monetary policy by increasing money supply, which lead to demand-pull inflation and hyperinflation due to excessive supply of money. (Credit to Cuiyan Tan from Guangdong Country Garden School)

138.Answer: D

Let’s treat it as an AD + AS curve question, in the short-run, government spending will increase both price and real output, but in the long-run, the productive potential of the economy is fixed unless there is innovation and technological progress. It assumes government spending will only increase AD, long-run AS remains fixed, increase in government spending will shift AD to right, leading to higher price level and output unchanged. (Credit to Cuiyan Tan from Guangdong Country Garden School)



International Economics and Current Events

1- International Trade

1. Answer: A

Diversification is the reduction of risk achieved by replacing a single risk with a large number of smaller, unrelated risks. International trade in financial assets makes multiple investments in financial assets more accessible to investors, which means it would be easier for investors to diversify their investment portfolio.

2. Answer: C

The term of trade is the exchange rate of export and input. Choice C is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

3. Answer: B

According to David Ricardo’s theory of comparative advantage, total world production will increase if each nation specializes in producing the good or service the nation has a comparative advantage in the production of and exports it to other countries. This corresponds to answer choice B. The results described in answer choice A, C, and D are either invalid or indefinite. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

4. Answer: A

The specialization in international trade requires each country to produce the good that it has comparative advantage, which means lower opportunity cost. Therefore, it will import good that it needs to produce at higher opportunity cost because the overall costs can be saved. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

5. Answer: C

The gains from trade are based the comparative advantage. Comparative advantage means the country is specialized on producing certain goods so, its l opportunity cost is lower. So, Choice C is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

6. Answer: B

	Food	Smart phone	Opportunity cost of food	Opportunity cost of smart phone
Farm land	50	50	50/50=1	50/50=1
Techno land	250	500	500/250=2	250/500=1/2

So, farm land has the comparative advantage on producing food, tech land has the comparative advantage on producing smart phone. Gains from trade is based on the comparative advantage. Both countries can get benefits from the exchange. Choice B is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

7. Answer: C

Opportunity cost of producing food for farm land is 50/50=1, Opportunity cost of producing smart phone for tech land is 250/500=1/2. Choice C is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

8. Answer: A

International trades would lead the country to be specialized on production. The countries around the world exchange their products and services which have comparative advantage for getting benefits. But many citizens have different interest in different countries and international trade also hurt domestic production and the individuals worse-off in different countries, such as domestic companies closed up and unemployment increase. For protecting domestic gain and national security, trade restrictions are made between countries. So, Choice A is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

9. Answer: D

Opportunity cost is what you give up to get that item, Alpha’s opportunity cost of producing of one pound of cheese is the cost for giving up to produce the computers 20/10=2 computers. Omega’s opportunity cost of producing of one pound of cheese is the cost for giving up to produce the computers 40/40=1computer. Choice D is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

10. Answer: E

Comparative advantage would lead the country to be specialized, The specialization boosts productivity which means produce more products. Trade makes both countries get more benefits. So, Choice E is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

11.Answer: C

For Aconia, the opportunity cost of producing 1 bushel of corn = 10/400 = 0.025 bushel;
For Zeconia, the opportunity cost of producing 1 bushel of corn = 24/600 = 0.04 bushel
Because 0.025 < 0.04, Aconia has a comparative advantage corn. Hence, Aconia should specialize inproducing corns.

12.Answer: D

Choice D is a possible advantage of protectionism and therefore not against it. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

13.Answer: C

When the economy opens up, some of its products' prices are lower than world prices and some are higher. Therefore, some consumers can benefit from lower world price and some can lose from higher world price, and it's the same for producers. Overall, because of the comparative advantages and lowered opportunity costs, benefits exceed costs. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

14.Answer: A

Because the production costs of gadgets in A are lower than those of gadgets in Z, country A can be said to have comparative advantage in gadgets. Because of the lower opportunity costs, country A should sell, or export, gadgets. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

15.Answer: C

Opportunity cost of producing 1 unit wool for England is the cost for giving up to produces wheat (10/10=1). Choice C is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

16.Answer: C

When each country has the same opportunity cost of producing a good, they don't have the incentive to specialize and trade with each other because it makes no difference in their overall costs of obtaining the good. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

17.Answer: E

International free trades would lead countries to be specialized on production, so the total output of these countries will increase. In this situation, specialization is based on comparative advantage, not absolute advantage.

18. Answer: C

The gains from trade are based the comparative advantage. The country should get the benefit for export, so the goods import into the other country at lower price. When the price of goods goes down, the quantity of demand on import goods increase. The decrease of demand on domestic products causes the price of domestic products decrease. So, Choice C is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

19. Answer: C

U.S have absolute advantage on producing wheat (40>10) and wool (20>10), so Choice E is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

20. Answer: D

Goods produced domestically and sold abroad is export, Goods produced abroad and sold domestically is import. So, Choice D is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

21. Answer: B

Comparative advantage is an economy's ability to produce a particular good or service at a lower opportunity cost than its trading partners. A comparative advantage gives a company or a country the ability to sell goods and services at a lower price than its competitors and realize stronger sales margins. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

22. Answer: A

If nation A can produce good X using fewer resources than another nation B does, nation A has the comparative advantage of producing good X compared with country B. If there is a technological advance in producing manufactured goods in nation A, nation A may produce manufactured goods by using fewer resources like human capital, so it may have more comparative advantage in producing manufactured goods.

23. Answer: D

International trade is the exchange of capital, goods, and services across international borders or territories. Trading-partners reap mutual gains when each nation specializes in goods for which it holds a comparative advantage and then engages in trade for other products. In other words, each nation should produce goods for which its domestic opportunity costs are lower than the domestic opportunity costs of other nations and exchange those goods for products that have higher domestic opportunity costs compared to other nations. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

24. Answer: B

Absolute advantage is measured by productive efficiency: if more output can be produced from a given amount of resources, then we say this is more efficient, and the country who can produce things with higher efficiency than others is said to have absolute advantage compared to others in such things. (Credit to Cuiyan Tan from Guangdong Country Garden School)

25. Answer: D

Market involves transaction which must happen on a voluntary basis, so all parties are expected to benefit from market transaction, otherwise the party who expects to lose will not be willing to participate. (Credit to Cuiyan Tan from Guangdong Country Garden School)

26. Answer: B

Comparative advantage and opportunity cost is the core for the specialization and export.

27. Answer: D

Intercepts on horizontal line represent the maximum of Merit goods countries can produce, while intercepts on vertical line represent the maximum of Industrial goods countries can produce. From the graph, we can see that Country Y has absolute advantages in both Merit goods and Industrial goods. The absolute values of slops for two lines on the graph represent the opportunity cost of producing one unit of merit goods of two countries. We can see that Country Y has a flatter line than Country X, so Country Y has a comparative advantage of producing Merit goods, while Country X has a comparative advantage of producing Industrial goods.

28. **Answer: C**

Trade depends on comparative advantage rather than absolute advantage. The opportunity cost of producing one book for Alpha is 2/3 table and the opportunity cost of producing one book for Beta is 3/5 table. So, Beta has a comparative advantage in producing books and Alpha has a comparative advantage in producing tables. Beta will import tables and Alpha will import books.

29. Answer: B

If the country has comparative advantage in the production of oil, the opportunity cost of this country in producing oil is lower. The country can get gains from export. So, Choice B is the correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

2-Restrictions on Free Trade

30. Answer: C

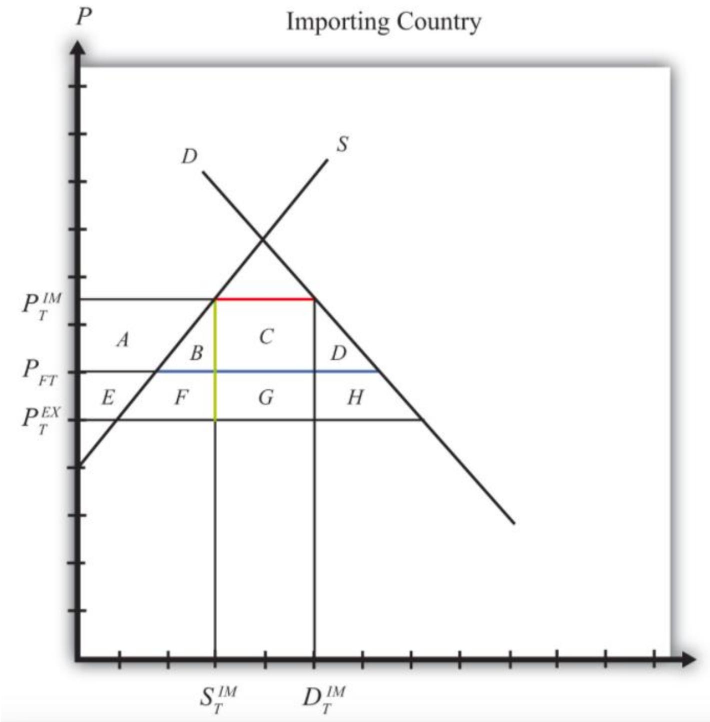
Import quota is a kind of trade policy. It is a government-imposed cap on the amount of a certain kind of goods that can be imported into the country. It only restricts the quantity imported.

31. Answer: A

A tariff is a tax on imported goods. An export tax is taxed on goods that are produced domestically but sold elsewhere. All taxes are inefficient and creates deadweight loss. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

32. Answer: C

An increase in the general level of tariffs makes foreign goods imported into the U.S. less competitive than domestically produced goods because their prices rise. This reduces imports because the domestic demanded quantity of imports decreases. For any particular market with imports, a congruent version of the following diagram can be used to illustrate the effects of a rise in tariff. The world supply is the horizontal line at $P=P_{EXT}$. The existence of the original tariff brings it to P_{FT}, with the blue segment denoting the imported quantity. The rise in tariff causes the price to increase from P_{FT} to P_{IMT}, reducing the domestic shortage, which is equal to the imported quantity, from the length of the blue segment to the length of the red segment, as shown. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)



33. Answer: C

For an economy, the imposition of tariffs increases the domestic producer surplus while decreases the domestic consumer surplus because the price increases. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

34. Answer: C

If there are restrictions on Nation A's imports (such as tariffs and quotas), the direct effect is that prices of imported goods will increase. None of the other options are directly affected by import restrictions.

35. Answer: D

Tariff refers to the tax exerted on foreign imported goods. If U.S. has import tariffs on small trucks, then the price of imported trucks shall rise. As imported trucks and domestically produced trucks are substitutes (that can replace each other in consumption), a rise in imported truck price will lead to a decrease in quantity demanded for imported truck and increase of quantity demanded for domestic trucks. Sales of domestic trucks increase, revenue increases, they benefit. Hence D. (Credit to Mike Li from Wuhan Britain-China School)

36. Answer: D

An ad valorem tariff on imports is a tax placed on imported goods. The government taxed imported goods based on the value of these goods.

37. Answer: D

Import quota refers to a type of trade restriction that sets a physical limit on the quantity of a good that can be imported into a country in a given period of time. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

38. Answer: C

An import tariff is a tax on goods produced abroad and sold domestically, while an import quota is a limit on how much of a good can be imported. Both tariffs and import quotas reduce the quantity of imports, raise the domestic price of the good, decrease the welfare of domestic consumers, increase the welfare of domestic producers, and cause deadweight losses. However, a tariff raises revenue for the government, whereas an import quota creates surplus for those who obtain the licenses to import.

39. Answer: B

A tariff is tax on goods imported from other countries. It' s a regulation that is set to offer protection on domestic industry by increase prices of foreign goods.

40. Answer: C

Dumping refers to the situation when a country or company exports a product at a price that is lower in the foreign importing market than the price in the exporter's domestic market. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

41. Answer: B

Trade barriers can either make trade more difficult and expensive (tariff barriers) or prevent trade completely (e.g. trade embargo). When trade barriers increase, less foreign producers will enter the domestic market, lead to the less competition to domestic producers. (Credit to Jerry Jin from Wuhan Britain-China School)

42. Answer: E

Trade restrictions will reduce the quantity the foreign goods and services into the country. Consumer will buy more goods and services produced domestically, which will promote the domestic employment and protect the infant industry from the competition. Trade restrictions will also increase the cost of dumping of the foreign suppliers. Hence, all of the three are arguments for trade restrictions.

3-Balance of Payment

43. Answer: C

The current account is a major component of the international balance of trade. It contains the trade surplus or deficit in goods and services, investment incomes like dividends from abroad, and government' s international transfer.

44. Answer: A

Main measures of balance of international trade are exports and imports. If a country wants its balance of international trade to be positive, its exports should exceed its imports because the country is gaining revenue from international trade.

45. Answer: D

Trade deficit is an excess of imports over exports, so if United States government wants to eliminate a trade deficit, it should increase imports or decrease exports. Reducing tariffs, encourage imports, or reducing quotas may increase imports, so they can not eliminate a trade deficit. When the government depreciate its dollar, foreign goods are more expensive compared with domestic goods, so export will increase while import will decrease, eliminating a trade deficit.

46. Answer: A

An international trade deficit exclusively refers to the situation where imports exceed exports, or answer choice A. Answer choice B describes an international trade surplus. Answer choice C describes a budget surplus. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

47. Answer: A

An international trade surplus exclusively refers to the situation where exports exceed imports, or answer choice A. Answer choice B describes an international trade deficit. Answer choice C describes a budget surplus. (Credit to Hongyi Wang from Shanghai United International School, Gubei Campus)

48. Answer: C

Uganda purchases construction and mining equipment from a U.S. plant will increase the net exports, other choices will whether increase the net exports of other countries or have no effect. (Credit to Benson Yang from Wuhan Britain-China School)

49. Answer: B

Net capital outflow refers to the difference between the purchase of foreign assets by domestic residents and the purchase of domestic assets by foreigners. In other words, net capital outflows = net exports. Y (gross domestic product) = C (consumption) + I (investment) + G (government purchase) + NX (net exports) = C (consumption) + S (national savings) + G (government purchase), so net capital outflows = net exports = national saving - domestic investment = \$300 - \$550 = -\$250 billion.

50. Answer: A

In the loanable funds market, the supply comes from the country's savings, both from people and government. Therefore, because people save more, the supply is greater, leading to lower equilibrium real interest rate. Lower interest rate will discourage local investors and they will look for higher return rates in other countries, making capital outflow greater. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

51. Answer: B

Capital refers to the assets and capital outflow refers to the transfer of assets between countries. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

52. Answer: C

Net capital outflow equals domestic residents' purchases of foreign assets minus foreigners' purchases of domestic assets. Every international transaction involves the exchange of an asset for a good or service, so net exports equal net capital outflow. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

53. Answer: E

The current account includes sales and purchases of goods and services, factor income, and transfers. The financial account includes net increase in assets and liabilities. Having known the trade surplus can not help us to deduce the surplus or deficit either in the current account or the financial account.

4-Foreign Exchange Market

54. Answer: B

When a currency appreciates, less of the amount of this currency is needed to purchase another currency.

55. Answer: A

As Italy devalues its currency, its output will become cheaper, thereby a relatively cheaper price will decrease the relatively expensive US exports to Italy, making **C** wrong. **A** is correct because since Italian export is becoming cheaper, therefore its exported olive oil to US will be cheaper in price. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

56. Answer: A

If any speculator expects an appreciation in Japanese yen, he or she will buy more of that currency as there’s a foreseeable increase in that currency’s purchasing power in the future.

57. Answer: B

When dollar appreciates relative to the peso, it means that 1 dollar can be used to exchange more pesos than before.

58. Answer: B

If the exchange rate between two currencies changes, the relative prices of products traded using those currencies change. If it originally takes $1 to obtain 1.50 euros, and now $1 purchases only 1.25 euros, then from the American perspective, the price of German products has become more expensive. Thus, U.S. imports of German products will fall, not increase. German imports of U.S. goods will increase, not decrease, because the goods are less expensive for Germans.

59. Answer: B

The exchange rate between the U.S. dollar and the Japanese yen changes from $1=100 yen to $1=125 yen, it means that the value of U.S. dollars increases compared with Japanese yen, so U.S. goods will be more expensive compared with Japanese goods, so the U.S. exports will decrease while its imports will increase.

60. Answer: E

When a government devalues its currency, domestic goods will be cheaper for foreigners, so this country will have more exports, increasing domestic employment rate. In the same time, this country will import fewer goods from other countries because foreign goods seem to be more expensive. It may rise unemployment abroad, which is not the intended consequence of this government.

61. Answer: A

Because Canadian people need more US dollars to buy US automobiles, the demand for US dollars increases. Therefore, the US dollar appreciates. After US dollar appreciates, US products become more expensive for buyers from other countries, so they demand less US products. As a result, export decreases and US net exports decrease. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

62. Answer: B

The effect of free trade can be determined by comparing the domestic price without trade to the world price, the lower price indicates the country has more comparative advantage in producing the goods and it exports more goods at lower price. In this way each country in the world has more consumption. Choice E is correct answer. (Credit to Mengze Lyu from Faragut school Tianjin Campus)

63. Answer: C

Because they can be exported or imported, if the prices of these goods aren' t the same, consumers from both countries will demand certain goods from each other. Therefore, the exchange rates can' t stay unchanged. In the long run, the prices of these goods will adjust to the same level and exchange rates will therefore stabilize. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

64. Answer: A

1 U.S. dollar = 1.5 CDN, so $12 = 12 U.S. dollar = 12 * 1.5 = $18 CDN

65. Answer: C

When Mexican peso depreciates, Mexican goods become cheaper for consumers in other countries, so they demand more Mexican goods. Therefore, exporters gain from it. On the contrary, goods from other countries become more expensive for Mexican people, so importers lose. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

66. Answer: D

Changes in real exchange rate cause point movements along the curve. The other three choices move the curve leftward or rightward. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

67. Answer: C

The purchasing power parity theory was propounded by Professor Gustav Cassel of Sweden. According to this theory, rate of exchange between two countries depends upon the relative purchasing power of their respective currencies. Such will be the rate which equates the two purchasing powers. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

68. Answer: A

Arbitrage is an investment strategy in which an investor simultaneously buys and sells an asset in different markets to take advantage of a price difference and generate a profit. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

69. Answer: C

Domestic money holders become in confident in their country' s economic currency and transfer their assets to other currencies and countries. This lack of confidence comes from negative monetary policies, namely political instability. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

70. Answer: A

Fixed exchange rate needs lots of foreign currency reserve to hold the position.

71. Answer: B

The Federal Reserve will increase the money supply during the recession. When the money supply increases, supply of loanable funds increases, so the nominal interest rate decreases, which decrease the demand for the dollar, and the value of dollar is depreciate.

72. Answer: A

When the central bank raises the discount rate, the money supply will decrease to drive the interest rate up. Higher interest rate will attract capital inflow, which increases the demand for domestic currency and make the domestic currency to appreciate.

5-Foreign Investment

73. Answer: A

A is direct foreign investment, direct foreign investment includes investments in physical capital such as in buildings and factories. **B** and **C** are examples of portfolio investment which denotes investments in (portfolio) financial assets such as stocks and bonds. (Credit to Yian Shen from Shanghai United International School, Gubei Campus)

74. Answer: B

FDI refers to an investment in a foreign business enterprise designed to acquire a controlling interest in the enterprise. Portfolio investment is the ownership of a stock, bond, or other financial asset with the expectation that it will earn a return or grow in value over time, or both. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

75. Answer: C

Foreign portfolio investment is the purchase of securities of foreign countries, such as stocks and bonds, on an exchange. Foreign direct investment is building or purchasing businesses and their associated infrastructure in a foreign country. (Credit to Estelle YU from Chongqing Nankai Liangjiang Secondary School)

76. Answer: D

A capital investment that is owned and operated by a foreign entity is called foreign direct investment. An investment that is financed with foreign money but operated by domestic residents is called foreign portfolio investment. In this case, only building a new Pizza Hut Russia is a foreign direct investment.

6-Economic Common Sense and International Events

77. Answer: A

Total imports of petroleum (Top 15 countries)

(thousand barrels per day)

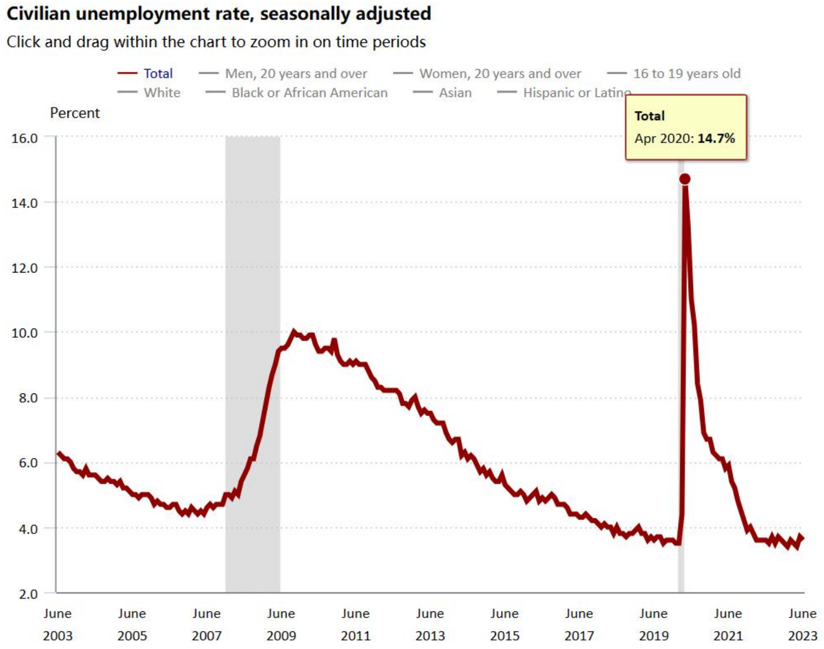
Country	Apr-23	Mar-23	YTD 2023	Apr-22	YTD 2022
Canada	4,140	4,424	4,440	4,215	4,476
Mexico	813	933	899	789	790
Saudi Arabia	526	483	504	537	536
Iraq	365	368	383	269	242
Nigeria	232	205	200	95	73
Colombia	204	219	212	261	239
Brazil	155	192	164	139	147
Korea, South	144	138	128	116	117
Venezuela	140	109	87	-	-
Ecuador	140	111	143	132	126
India	126	92	137	108	65
Netherlands	117	63	89	59	80
Guyana	116	97	103	38	67
United Kingdom	107	56	98	70	69
Algeria	97	31	57	38	24

78. Answer: B

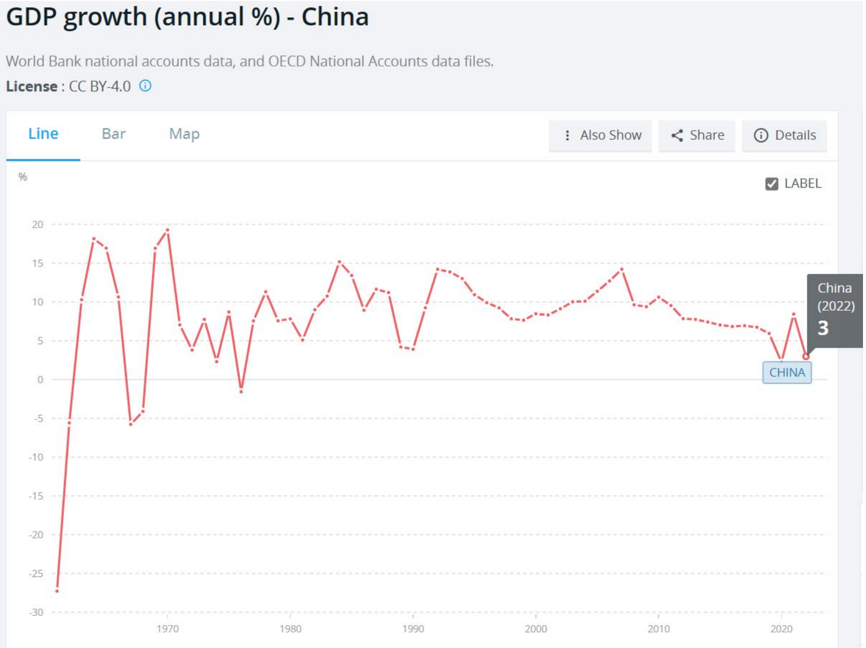
2019	$22,719	107%	Trade wars
2020	$27,748	129%	COVID-19 and 2020 recession
2021	$29,617	124%	COVID-19 and American Rescue Plan Act
2022	$30,824	123%	Inflation Reduction Act and student loan forgiveness

link : https://www.thebalancemoney.com/national-debt-by-year-compared-to-gdp-and-major-events-3306287

79. Answer: D



80. Answer: A



81.Answer: A

As shown below, the revenue of Walmart globally ranked the first.

Fortune Global 500 list of 2022 [edit]

The following is the list of top 10 companies in 2022.[5]

Fortune Global 500 list of 2022

Rank	Company	Country	Industry	Revenue in USD
1	Walmart	United States	Retail	$572.8 billion
2	Amazon	United States	Internet Services and Retailing	$469.8 billion
3	State Grid	China	Energy	$460.6 billion
4	China National Petroleum	China	Petroleum	$411.7 billion
5	Sinopec Group	China	Petroleum	$401.3 billion
6	Saudi Aramco	Saudi Arabia	Energy	$400.4 billion
7	Apple	United States	Technology	$365.8 billion
8	Volkswagen	Germany	Automobiles	$295.8 billion
9	China State Construction Engineering	China	Construction & Engineering	$293.7 billion
10	CVS Health	United States	Health care	$292.1 billion

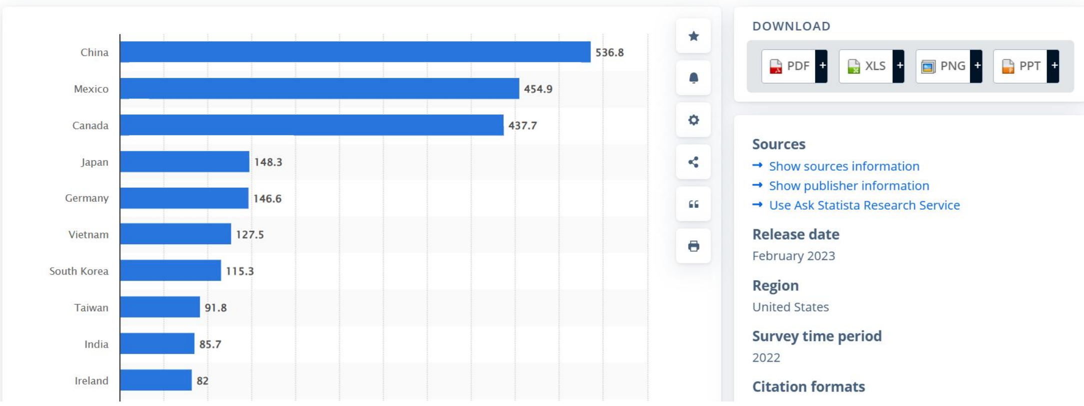
82.Answer: D

Ricardo didn’ t state that landlords should take wealth from labor for the good of society. What he stated was that the wages that worker receive should be judged based on the costs that labors have, their wage should be sufficient for labors to make a living at least.

83.Answer: E

Ranking of the top trading partners of the United States for trade goods in 2022, by import value

(in billion U.S. dollars)



84. Answer: C

In this case, American dollar appreciates against the Japanese yen, which means that 1 American dollar can exchange for more Japanese yen. Therefore, if the price of one Japanese product in yen remains constant, it will be cheaper to buy using American dollar. Hence C. (Credit to Mike Li from Wuhan Britain-China School)

85. Answer: B

Institutions which protect property rights can protect the incentives of research and development, which is the key to economic development (potential economic development: outward shift of Production Possibility Curve, which can be attained by increase in quantity and quality of FOPs. R&D can improve the quality of FOPs). (Credit to Mike Li from Wuhan Britain-China School)

86. Answer: D

The General Agreement on Tariffs and Trade (GATT), signed on October 30, 1947, by 23 countries, was a legal agreement minimizing barriers to international trade by eliminating or reducing quotas, tariffs, and subsidies while preserving significant regulations. The GATT was intended to boost economic recovery after World War II through reconstructing and liberalizing global trade. The GATT went into effect on January 1, 1948. Since that beginning it has been refined, eventually leading to the creation of the World Trade Organization (WTO) on January 1, 1995, which absorbed and extended it. By this time 125 nations were signatories to its agreements, which covered about 90% of global trade.

87. Answer: B

Country	Russia	China Mainland	Japan	Korea	U.S.A.
Real GDP Growth Rate in 2017	1.83%	6.95%	1.68%	3.16%	2.33%

Source: https://data.imf.org/regular.aspx?key=61545852

88. Answer: D

General Motors, Wells Fargo & Co., Citigroup and AIG are American companies/organizations, while Shell Oil was set up by Holland. Hence, Shell Oil did not receive bailout funds from the U.S. federal government during the 2007-2009.

89. Answer: A

In April 2023, the real GDP growth rate was 6.5% in India,5.2%in China and 1.6% in the US. Source:https://en.wikipedia.org/wiki/List_of_countries_by_real_GDP_growth_rate#Growth_by_countries_2

90. Answer: D

Oil production in 2023 is as follows:

Top 10 Countries with the Highest Oil Production (barrels per day)

1. United States - 11,567,000
2. Russia - 10,503,000
3. Saudi Arabia - 10,225,000
4. Canada - 4,656,000
5. Iraq - 4,260,000
6. China - 3,969,000
7. United Arab Emirates - 2,954,000
8. Brazil - 2,852,000
9. Kuwait - 2,610,000
10. Iran - 2,546,000

91. Answer: D

Due to the globalization of economy, financial crisis can happen and spread to nearly every country. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

92. Answer: B

GATT was created in 1947 (A) (B) by 23 countries (C). NAFTA was created in 1994 to encourage trade between North American countries (D). GTAA is enforced by WTO(E). (Credit to Herui Chen from HEFEI NO.EIGHT SENIOR HIGH SCHOOL)

93. Answer: B

31 Dec 2000	1.0859
31 Dec 2001	1.1171
31 Dec 2002	1.0644
31 Dec 2003	0.8834
31 Dec 2004	0.8047
31 Dec 2005	0.8039
31 Dec 2006	0.7967
31 Dec 2007	0.7308
31 Dec 2008	0.6831
31 Dec 2009	0.719
31 Dec 2010	0.7549
31 Dec 2011	0.7188
31 Dec 2012	0.7783
31 Dec 2013	0.753
31 Dec 2014	0.7536
31 Dec 2015	0.9017
31 Dec 2016	0.9042
31 Dec 2017	0.8868
31 Dec 2018	0.8475
31 Dec 2019	0.8929
31 Dec 2020	0.8768
12 Sep 2021	0.8348

**1 UNIT of USD = X UNITS of EUR

Refer to the following picture (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)

94. Answer: B

Ecuador suspended its membership in December 1992, rejoined OPEC in October 2007, but decided to withdraw its membership of OPEC effective 1 January 2020.

95. Answer: C

Brexit is a portmanteau of the words "British" and "exit" coined to refer to the U.K.'s decision in a June 23, 2016 referendum to leave the European Union (EU). Brexit took place at 11 p.m. Greenwich Mean Time, Jan. 31, 2020.

96. Answer: B

US twin deficits consist of fiscal deficit and current account deficit. (Credit to Herui Chen from HEFEI NO. EIGHT SENIOR HIGH SCHOOL)