1. What are the four macroeconomic agents? What are the three markets in which the agents interact?

1) household, firms, government, the rest of the world

goods and service market, labour market, financial market

2. What is sticky price? Explain why price may be sticky.

↳ Sticky price is price adjust slowly to the equilibrium

↳ Price is sticky because employment contract, minimum wage and labor union.

3. Explain the four main categories of unemployment.

Frictional - normal turnover or labour switching jobs in the market.

Structural - technological, geograpical, change in demand of labor skills, labor market rigidity)

Seasonal - change in season

Cyclical - change in business cycle

4. Classify the following events into the categories of unemployment.

- Some friends just graduated from college and have been looking for jobs. Frictional
- Christine lost her job as a biologist at a biotech-company when the whole industry went into recession. cyclical
- Gerhard, who used to be a taxi driver, stopped looking for a job three months after he lost his job. out of the labour force
- Dirk used to work as a wooden-doll maker. Now all kids want plastic dolls, so he is out of work. Structural
- The hotel part-timers were laid off during low season. seasonal
- Aditi, a high-tech engineer, just decided to quit her job; she is being interviewed for a better-paid job in a multinational company. Frictional
- A man lost his job as a public reader as literacy has increased in his village. structural

5. Suppose there are 100 people in labor force and 60 people currently in employment. Find the unemployment rate. Can we find labor force participation rate? If not, what information do we need?

unemployed = 40 people

unemployment rate $= \frac{40}{100} \times 100 = 40\%$

total population data is needed

6. What is the discouraged-worker effect? How can it affect the unemployment rate?

↳ It's when people want to work but can't find work. This leads to the decrease in motivation.

↳ These people are not taking in account for unemploymentrate. This could lead to a fall in unemployment rate.

7. On average, nations in Europe pay higher unemployment benefits for longer periods of time than the US. How would this affect the unemployment rates in these nations? Explain which type of unemployment is most directly affected.

Unemployment rate in Europe would be higher as people may leave the job to be "frictional unemployment" in order to recieve benefits.

8. What is inflation? It is often said that inflation reduces one's purchasing power, and hence inflation is bad. How can inflation reduce one's purchasing power? Is there a case where inflation may not be bad?

Inflation is a general increase in price level over a period of time.

↳ If a person is recieving fixed amount of income each month. Instead of buying goods at the same price. They now have to buy a more expensive product.

9. Who - lender or borrower - is better off, given unanticipated deflation? Explain with examples.

Borrower is better because the IR will be lower. This will make the cost of borrowing less.

10. When inflation is anticipated, what will the central bank do with the interest rate? (Hint: Fisher Equation)

Central bank will increase the interest rate to stop the overheat.

11. The CPI is 120 in year 1 and 150 in year 2. All inflation is anticipated. If the bank charges an interest rate of 30%, what is the bank's real interest rate?

$i = r + \pi$ $\quad$ π = inflation $\quad$ $r = i - \pi$

$\pi = \frac{150 - 120}{120} \times 100$ $\quad$ $r = 30 - 25$

$r = 5$

$\pi = 25\%$

12. Explain why inflation is necessary to a growing economy with reference to the money supply.

An increase in the supply of money is basic inflation. Low and stable inflation rate is needed to stimulate the economy.

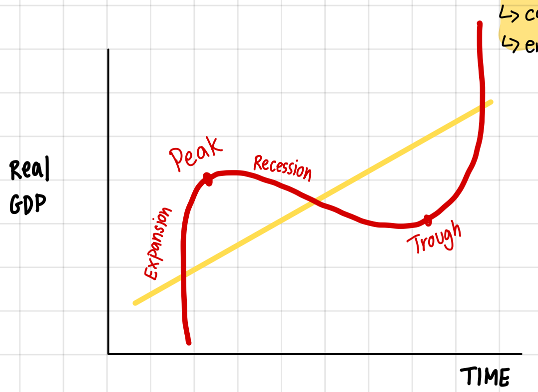
13. What are the two administrative costs of inflation? Explain.

Menu cost - cost of changing menu.

Shoe Leather cost - cost of time and effort (opportunities cost) to counter act with the effect of inflation.

14. Draw a diagram of business cycles and the trend line. Label the four phases of business cycles. Answer the following questions.

- Which phase do you expect to see inflation? Peak
- Which phase do you expect to see high unemployment? Trough
- Which phase should the government use expansionary policy? Give example. Trough e.g. economic crisis(2008)
- Which phase should the government use contractionary policy? Give example. Peak ex. economic boom in 1990 in USA
- What factors determine the trend line? FOP
  - ↳ labor
  - ↳ land
  - ↳ capital
  - ↳ entrepreneurship



15. An article states that capital stock and labor force are both increasing at an annual rate of 7%. The same article also states that real output is growing by 11%. Explain why this is possible.

Higher productivity means increased labour force will produce a proportionally greater increase in output