

# TOPIC 3.4

## Employment / Unemployment

### MCQ Section

1. An economy is operating initially at its natural rate of unemployment. According to monetarist theory, what will be the effect on unemployment in the short run and in the long run of an unanticipated increase in the money supply?

	short run	long run
A	no change	no change
B	no change	reduction
C	reduction	no change
D	reduction	reduction

[J08/P3/Q19]

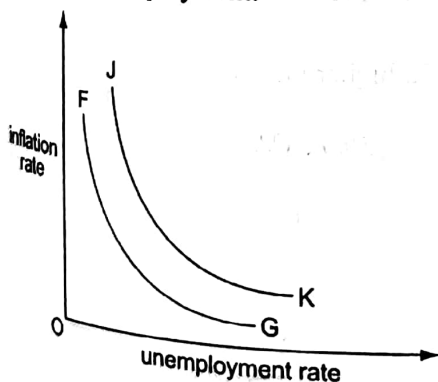
2. The number of people employed in a country and the level of unemployment both increase.

What could make this possible?

- A net inward immigration
- B a decrease in the level of unemployment benefits
- C a decrease in the age at which state pensions are payable
- D an increase in the number of students

[J08/P3/Q27]

3. The diagram shows the relationship between the rate of inflation and the rate of unemployment.



What would cause the curve FG to shift to JK?

- A a decrease in government expenditure
- B a fall in the level of employment
- C an increase in the rate of change of wages
- D the expectation of an increase in inflation

[J08/P3/Q28]

4. Which pattern of labour market data is likely to indicate an increase in cyclical unemployment?

	changes in	
	compulsory redundancies	voluntary resignations
A	decrease	increase
B	increase	increase
C	decrease	increase
D	increase	decrease

[N08/P3/Q22]

5. The natural rate of unemployment in an economy is 5%.

What will happen if a government persists in trying to achieve a target rate of unemployment of 3% by expansionary monetary policy?

- A an accelerating rate of inflation
- B a diminishing rate of inflation
- C a high but constant rate of inflation
- D a negative rate of inflation

[N08/P3/Q23]

### HELPS to MCQ

1. C Frictional and structural unemployment represents NRU. Monetarists believe that although in the short run there is an inverse relationship between unemployment and the rate of inflation due to excess money supply, in the long run there is no such relationship.

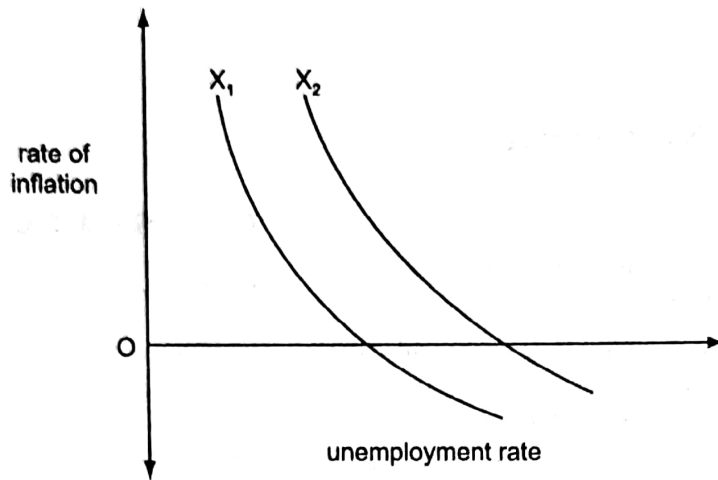
2. A Net inward immigration results in an increase in both employed and unemployed.

3. D The short run Philips curve shifts rightward due to expectation of increase in inflation rate. This means the same level of unemployment but with a higher level of inflation.

4. D Cyclical or demand deficient unemployment occurs due to cyclical fluctuations in AD. In a recessionary period, lack of AD forces the firms to lay off workers hence, an increase in compulsory redundancies. Also, due to the lack of job opportunities the tendency of voluntary resignations decreases.

5. A In the long run, NRU and the rate of increase in money wages are unrelated. Thus, a persistent expansionary monetary policy would only accelerate inflation rate without reducing NRU.

6. In the diagram, the curve  $X_1$  shows an economy's initial trade-off between inflation and unemployment.



What could cause the curve to shift to  $X_2$ ?

- A an increase in the natural rate of unemployment
- B a decrease in the money supply
- C the expectation of a decrease in the inflation rate
- D an increase in the rate of interest

[N09/P3/Q24]

7. An economy is operating at its natural rate of unemployment.

According to monetarist theory, what will be the effect on unemployment in the short run and in the long run of an unanticipated increase in the money supply?

	short run	long run
A	no change	no change
B	no change	reduction
C	reduction	no change
D	reduction	reduction

[J10/P3/Q24]

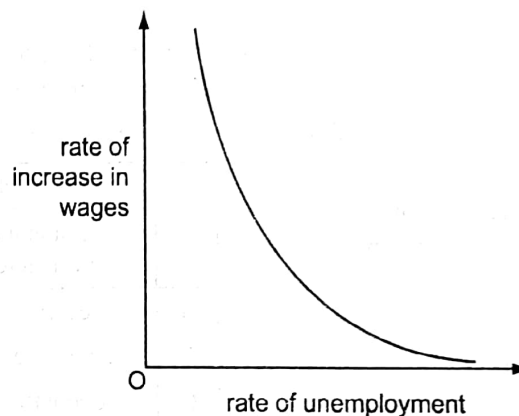
8. Which is most likely to result in an increase in the natural rate of unemployment?

- A a decrease in government expenditure on goods and services
- B a decrease in the level of government payments to the unemployed

- C an increase in trade union membership
- D an increase in interest rates

[J10/P3/Q27]

9. The diagram shows the relationship between the rate of increase in wages and the rate of unemployment.



What would be likely to cause the curve in the diagram to shift downwards and to the left?

- A a reduction in regional differences in unemployment rates
- B an increase in the proportion of the workforce belonging to trade unions
- C an increase in the unemployment rate
- D the expectation of a higher rate of inflation

[J10/P3/Q25]

HELPS to MCQ

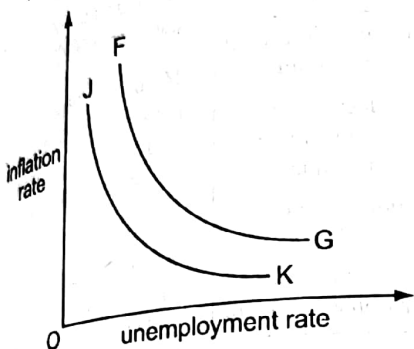
6. A NRU is indicated at zero rate of inflation.  $X_2$  curve indicates a higher level of NRU.

7. C There would be a trade-off between unemployment and inflation rate in the short run but further expectations of inflation would restore unemployment rate at NRU in the long run.

8. C Options A, B and D are also likely to increase NRU but the question specifically asks which of the options is most likely to lead to an increase in NRU.

9. A A reduction in regional unemployment disparities would cause a downward shift in the PC, Options B and D would shift the Philips curve outward hence incorrect, while C would produce a movement along the curve rather than a shift in the curve.

10. The diagram shows the relationship between the rate of inflation and the rate of unemployment.



What would cause the curve FG to shift to JK?

- A a lower exchange rate
- B a lower expected rate of inflation
- C an increase in government expenditure
- D a rise in the level of employment

[J11/P3/Q23]

11. An economy is operating at its natural rate of unemployment.

According to monetarist theory, what will be the effect on unemployment in the short run and in the long run of an unanticipated increase in the money supply?

	short run	long run
A	no change	no change
B	no change	reduction
C	reduction	no change
D	reduction	reduction

[J11/P3/Q14]

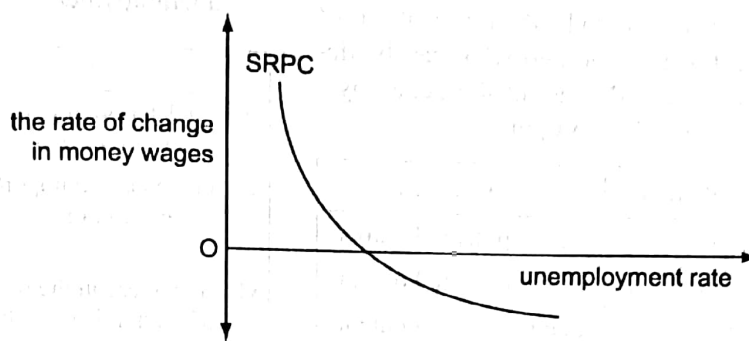
12. The table shows the labour market for an economy in four separate years.

In which year was there excess demand in the labour market?

	working population (millions)	unemployment rate (%)	job vacancies (thousands)
A	19	1.0	180
B	19	2.0	80
C	20	1.1	240
D	20	1.5	100

[N11/P3/Q6]

13. The diagram shows an economy's short-run Phillips curve (SRPC).



What is assumed to remain constant when drawing this curve?

- A the average price level
- B the exchange rate
- C the expected rate of inflation
- D the money supply

[N11/P3/Q26]

10. B Expectations of lower prices and higher real wages would decrease natural rate of unemployment, therefore PC would shift leftward.

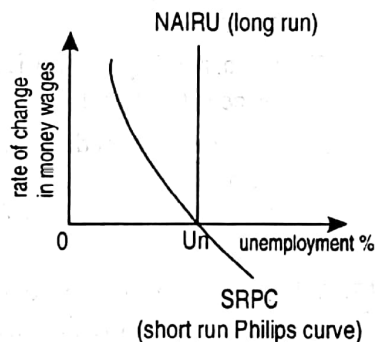
11. C An unexpected increase in money supply will increase money wages.

14. The number of people employed in a country and the level of unemployment both decrease.

What could explain this?

- A net inward immigration
- B an increase in the level of unemployment benefits
- C an increase in the age at which state pensions are payable
- D an increase in the number of students

[J12/P3/Q28]



The curve SRPC suggests that NRU decreases as money wages rise but NAIRU suggests that NRU remains unaffected by the change in money wages in the long run.

12. C No. of unemployed = working population × unemployment rate.

no. of unemployed (thousands)	job vacancies (thousands)	excess/short-fall in demand (thousands)
190	180	-10
380	80	-300
220	240	+10
300	100	-200

15. An economy's unemployment rate is below the natural rate.  
What is likely to be the implications of this for inflation and what can be deduced from this about the economy's actual level of output?

	inflation	actual output
A	accelerating	below potential output
B	accelerating	above potential output
C	decelerating	below potential output
D	decelerating	above potential output

[N12/P3/Q22]

16. What is most likely to lead to an increase in the natural rate of unemployment?
- A more rapid technological and structural change
  - B a widening in regional wage differentials
  - C a narrowing in regional house price differentials
  - D a decrease in trade union membership

[N12/P3/Q24]

17. Which type of unemployment arose from the worldwide decline in the demand for electronic goods beginning in the summer of 2001?

- A seasonal                      B voluntary
- C frictional                    D structural

[N12/P3/Q25]

18. Which policy is specifically designed to reduce the level of structural unemployment?

- A an increase in the level of state benefits paid to the unemployed
- B a reduction in interest rates
- C a reduction in the level of direct taxation
- D the provision of retraining schemes

[J13/P3/Q24]

19. What is a possible combination of a cost and a benefit of rising levels of unemployment?

	cost	benefit
A	a deterioration in human capital	an increase in capital expenditure
B	an increase in import expenditure	a decrease in government tax revenue
C	an increase in the rate of economic growth	a more responsive workforce
D	an irretrievable loss of output	a reduction in inflationary pressure

[N13/P3/Q24]

20. A country experiences cyclical unemployment due to a decrease in domestic spending.

If the government takes no action in response, what will be a likely consequence?

- A an increase in the current account deficit on the balance of payments
- B an increase in the government's budget deficit
- C an increase in the rate of inflation
- D an increase in the volume of investment

[N13/P3/Q23]

21. An economy is operating at its natural rate of unemployment.

According to monetarist theory, what will be the effect on unemployment in the short run and in the long run of an unanticipated increase in the money supply?

	short run	long run
A	no change	no change
B	no change	reduction
C	reduction	no change
D	reduction	reduction

[N15/P3/Q25]

13. C A change in the expected rate of inflation shifts the SRPC.

14. D Increase in number of students will result in a fall in the country's labour force, therefore will reduce unemployment.

15. B Accelerating inflation rate causes NRU to decrease. People who are voluntarily unemployed (NRU) are not considered part of labour force and the potential output is measured by the available labour force.

16. A Technological and structural unemployment are two different types of NRU.

17. D A decline in demand for a product results in job losses in that particular industry (structural unemployment).

18. D Structural unemployment is caused by the destruction of jobs in a particular occupation; therefore workers must get retrained before they join other occupation. Option A will encourage workers to remain unemployed while B & C will help to reduce cyclical unemployment.

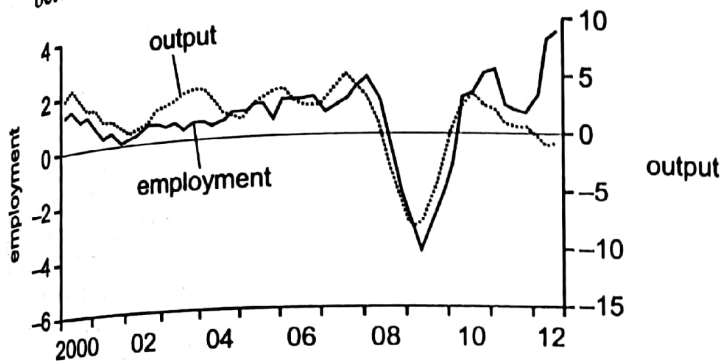
19. D Loss of output is the cost of unemployment while lower spending resulting from an increase in unemployment reduces AD and hence inflationary pressure.

20. B Increase in cyclical unemployment is due to the deficiency of AD, therefore, requires an increase in government spending.

22. Which type of unemployment occurs when aggregate demand is deficient?
- A cyclical unemployment
  - B regional unemployment
  - C seasonal unemployment
  - D structural unemployment

[J16/P3/Q23]

23. The diagram shows the annual percentage (%) change in employment and output in the UK private sector between 2000 and 2012.



In which year did labour productivity increase the most?

- A 2003
  - B 2007
  - C 2009
  - D 2012
- [J16/P3/Q24]

24. Which policy is specifically designed to reduce the level of structural unemployment?

- A an increase in the level of state benefits paid to the unemployed
- B a reduction in interest rates
- C a reduction in the level of direct taxation
- D the provision of retraining schemes

[J17/P3/Q19]

25. Why do some economists suggest there may be positive benefits from frictional unemployment?

- A A short spell of frictional unemployment may lead workers to become discouraged.
- B Frictional unemployment allows time for retraining in newly emerging skills.

- C Job search during frictional unemployment may lead to a better match of workers and jobs.
- D The psychological effects of frictional unemployment are less than the economic effects.

[J17/P3/Q23]

26. What would not be classified as structural unemployment?

- A a car worker who is replaced by a robot on the production line
- B a coal miner whose mine closes because of increased use of solar power
- C a fruit picker who cannot find work in the winter months
- D a textile worker whose factory closes as production moves abroad

[N17/P3/Q24]

27. A country has a population of 100 million. There are 5 million people unemployed and the country has an unemployment rate of 10%.

What is the size of the labour force?

- A 10 million
- B 50 million
- C 90 million
- D 95 million

[J18/P3/Q19]

**HELPS to MCQ**

21. C A rise in M<sub>3</sub> drives interest rate down that causes AD and hence the price level to rise. According to the theory there exists an inverse relationship between price level and NRU only in the short run. So the NRU will fall however it will not be affected in the long run.

22. A Deficiency of aggregate demand suggests recession that is associated with business cycle.

23. A Percentage change in output shows an increase with more or less the same level of employment.

24. D Structural unemployment is the result of a mismatch between the skills required and the skills possessed by the workers, therefore retraining will help. Option A is likely to increase it while B & C would reduce demand deficient unemployment.

25. C Options A, B & D suggest negative effects of frictional unemployment.

26. C It is seasonal unemployment. All other options suggest unemployment resulting from structural changes in the economy, therefore they are examples of structural unemployment.

27. B

$$\frac{10}{100} \times 50 = 5 \text{ million.}$$

28. Which type of unemployment is correctly linked to the description of its cause?

	type of unemployment	description of the cause
A	cyclical	a change in demand due to holiday periods
B	frictional	a lack of sufficient information
C	structural	a temporary change in consumers' expenditure
D	technological	a general decrease in the demand for goods

[J18/P3/Q20]

29. In 2007 Turkey had a population of 73 m. Its labour force was 36 m, of which 12 m were trained for the primary sector and 24 m were trained for the secondary and tertiary sectors. The unemployment rate was 10%.

What was the number of people unemployed?

- A 1.2 m
- B 2.4 m
- C 3.6 m
- D 7.3 m

[N18/P3/Q23]

30. An economy's manufacturing share of real GDP fell from 30% in 1970 to 12% in 2016.

What type of unemployment would result from this?

- A cyclical
- B frictional
- C structural
- D voluntary

[N18/P3/Q24]

28. B Frictional unemployment consists of people in search for jobs and often lacking information about job vacancies.

29. C

$$\text{Unemployment rate} = \frac{\text{no. of unemployed}}{\text{labour force}} \times 100$$

Thus,

$$\frac{10}{100} \times 36 = 3.6 \text{ million.}$$

30. C Decrease in share of GDP by manufacturing suggests a decline in manufacturing sector leading to job losses. Hence the skills of some of manufacturing workers are no longer in demand. This is indicative of structural unemployment. Types of unemployment given in other options do not necessarily result from a fall in share of GDP of a particular sector.

**TOPIC 3.4****Employment / Unemployment****ESSAY Section****LIST OF QUESTIONS**

- Q1 (N08/P4/Q6)**  
In some countries the rate of unemployment has remained low for several years.  
(a) Explain what causes unemployment. [12]
- Q2 (J09/P4/Q5)**  
In 2006 it was reported that a country's unemployment rate had remained steady and that its central bank, through its interest rate policy, had prevented an increase in inflation despite a sharp rise in oil prices.  
(a) Explain what might cause unemployment. [12]
- Q3 (J10/P4/Q6)**  
(a) Explain the causes of unemployment. [12]
- Q4 (J13/P4/Q6)**  
In 2011, one of the UKs' largest multinational banks announced it would reduce the number of people it employed by 43 000 – the equivalent size of a small town. Unemployment in the UK reached nearly 3 million in 2011.  
(Source: adapted from *The Times*)  
(a) Analyse what might cause an increase in unemployment in a country. [12]  
(b) Discuss what impact an increase in unemployment is likely to have on an economy. [13]
- Q5 (J14/P4/Q6)**  
(a) Explain the possible causes of unemployment and explain which is responsible for most of the unemployment in your country. [12]
- Q6 (J15/P4/Q2)**  
(b) Explain the difference between structural, cyclical and seasonal unemployment and discuss whether a general rise in income in a country would have the same effect on each of these types of unemployment. [13]
- Q7 (N16/P4/Q5)**  
(a) Explain the causes of unemployment and consider what type of unemployment is the most serious for the country in which you live. [12]
- Q8 (N17/P4/Q7)**  
(a) In many countries there is a concern about the rate of unemployment.  
Consider what are likely to be the main causes of unemployment. [12]
- Q9 (N18/P4/Q5)**  
(a) Robots are increasingly used in various areas of production.  
Explain the type of unemployment which may arise as a result of the increased use of robots.  
Consider the contribution this may make to total unemployment in an economy. [12]

**Question 1**

In some countries the rate of unemployment has remained low for several years.

Explain what causes unemployment. [12]

[N08/P4/Q6(a)]

**Essay:**

Unemployment is defined as people who are out of work but, have actively looked for a job over the previous four weeks and who are available to work within the next two weeks. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed.

The causes of unemployment fall into two broad categories: Equilibrium unemployment (NRU) and disequilibrium unemployment (real wage unemployment).

Real wage unemployment or classical unemployment is where trade unions use their monopoly power to derive wages above the market clearing level resulting in an excess supply of labour. Governments introducing minimum wage legislation could also cause it.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is also known as the natural rate of unemployment. For various reasons not all vacancies will be filled. The problem is one of the mismatching. There are various types of equilibrium unemployment.

Frictional unemployment is transitional unemployment due to people moving between jobs: For example, newly redundant workers or workers entering the labour market for instance, university graduates, may take time to find appropriate jobs at wage rates they are prepared to accept. Thus, many are unemployed for a short time whilst involved in job search. Imperfect information in the labour market may make frictional unemployment worse if the jobless are unaware of the available employment opportunities.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other

parts or other industries. Hence, structural unemployment exists where there is a mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Keynesian unemployment is referred to as demand deficient or cyclical unemployment. The term cyclical unemployment entails the alternate booms and slumps in the level of economic activity due to the fluctuations in aggregate demand. Unemployment increases when aggregate demand is too small, there being a deficiency of demand for goods and services. Since labour is a derived demand, the lack of demand for goods and services will also lead to a deficiency of demand for labour.

**Question 2**

In 2006 it was reported that a country's unemployment rate had remained steady and that its central bank, through its interest rate policy, had prevented an increase in inflation despite a sharp rise in oil prices.

Explain what might cause unemployment. [12]

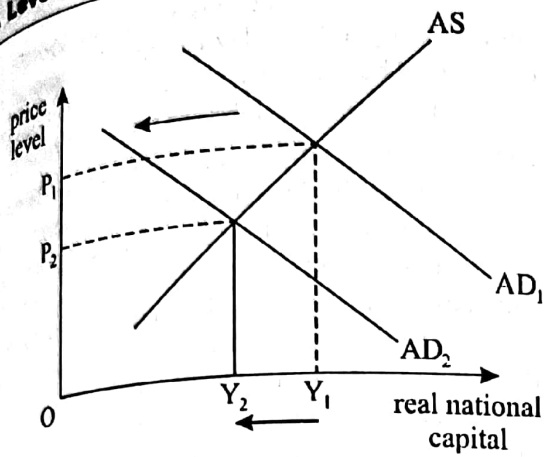
[J09/P4/Q5(a)]

**Essay**

In a modern economy unemployment has a variety of causes. Some of them relate to the general level of economic activity, others are the result of a failure of the labour market in an economy to work optimally.

Unemployment resulting due to a lack of aggregate demand for goods and services is called cyclical or involuntary unemployment. This is also known as Keynesian "demand deficient" unemployment and is associated with the transition of the economy through the business cycle. When there is an economic recession we expect to see a rising level of unemployment because of plant closures and worker lay-offs. This is due to a fall in AD demand leading to a contraction in output across many industries as shown in the figure below:



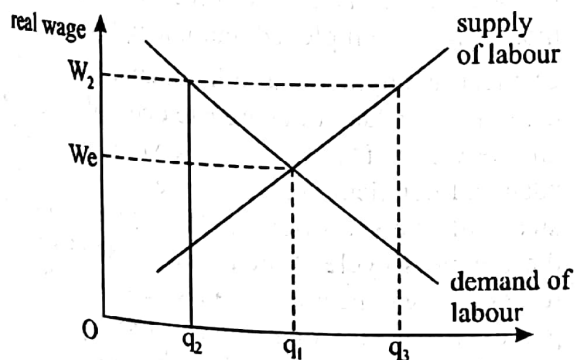


A fall in aggregate demand from  $AD_1$  to  $AD_2$  results in a reduction of national income from  $Y_1$  to  $Y_2$  and as such there is an increase in the numbers employed.

Although demand deficient unemployment is usually associated with economic recessions it can also exist in the long run when the economy is constantly run below capacity. As the economy recovers from a downturn, we expect to see the problem of cyclical unemployment decline.

Unemployment resulting from a disequilibrium in the labour market is another form of involuntary unemployment. This is also known as real wage unemployment and is often referred to as classical unemployment. Classical real wage unemployment is a form of dis-equilibrium unemployment that occurs when real wages for jobs are forced above the market clearing level.

Traditionally, **trade unions** are seen as the institutions causing this type of unemployment. Some economists believe that the introduction of the national minimum wage (NMW) may create some classical unemployment in industries where average wage rates are closer to the NMW level and where international competition from low-labour cost producers is severe.



If a real wage ( $w_2$ ) is maintained above the equilibrium real wage ( $w_e$ ) then the result is an excess supply of labour equal to  $q_3 - q_2$ . This is labeled as real wage unemployment.

The **natural rate of unemployment** is the equilibrium rate of unemployment and also called voluntary unemployment. It consists of frictional and structural unemployment.

Frictional unemployment is voluntary or transitional unemployment due to people moving between jobs: For example, newly redundant workers, or workers entering the labour market for the first time such as graduates and school-leavers take time to find jobs at wage rates they are prepared to accept. Many of the frictionally unemployed are out of work for a short time whilst engaged in job search.

Imperfect information in the labour market may lead to a rise in frictional unemployment if the jobless are unaware of the available jobs. Often this information failure is localised - for few workers scan the vacancies available across the whole economy, they tend to restrict their search for work to a local area. Besides some people may opt not to accept jobs at prevailing market wage rates if they believe the income tax and benefit system will reduce the net increase in income people can expect from taking paid work. This problem is referred to as the unemployment trap.

Unemployment caused by a change in the pattern of demand and methods of production is called structural unemployment. Structural change is a constant feature of a flexible economy. Hence unemployment occurs when people are made jobless because of 'capital-labour substitution' which reduces the demand for labour in an industry, or when there is a long run decline in demand which causes redundancies and worker lay-offs. In short the cause of structural unemployment is a 'mismatch' between the existing skills of the workers and the skills required for the new job opportunities.

In some industries such as fruit-picking and holiday catering unemployment is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable but demand for their products follows a seasonal pattern.

## Question 3

Explain the causes of unemployment. [12]

[J10/P4/Q6 (a)]

## Essay

Unemployment is defined as people who are out of work but, have actively looked for a job over the previous four weeks and who are available to work within the next two weeks. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed.

The causes of unemployment fall into two broad categories: Equilibrium unemployment (NRU) and disequilibrium unemployment (real wage unemployment).

Real wage unemployment or classical unemployment is where trade unions use their monopoly power to derive wages above the market clearing level resulting in an excess supply of labour. Governments introducing minimum wage legislation could also cause it.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is also known as the natural rate of unemployment. For various reasons not all vacancies will be filled. The problem is one of the mismatching. There are various types of equilibrium unemployment.

Frictional unemployment is transitional unemployment due to people moving between jobs: For example, newly redundant workers or workers entering the labour market for instance, university graduates, may take time to find appropriate jobs at wage rates they are prepared to accept. Thus, many are unemployed for a short time whilst involved in job search. Imperfect information in the labour market may make frictional unemployment worse if the jobless are unaware of the available employment opportunities.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other parts or other industries. Hence, structural unemployment exists where there is a mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the

seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Keynesian unemployment is referred to as demand deficient or cyclical unemployment. The term cyclical unemployment entails the alternate booms and slumps in the level of economic activity due to the fluctuations in aggregate demand. Unemployment increases when aggregate demand is too small, there being a deficiency of demand for goods and services. Since labour is a derived demand, the lack of demand for goods and services will also lead to a deficiency of demand for labour.

## Question 4

In 2011, one of the UKs' largest multinational banks announced it would reduce the number of people it employed by 43 000 – the equivalent size of a small town. Unemployment in the UK reached nearly 3 million in 2011.

(Source: adapted from *The Times*)

- Analyse what might cause an increase in unemployment in a country. [12]
- Discuss what impact an increase in unemployment is likely to have on an economy. [13]

[J13/P4/Q6]

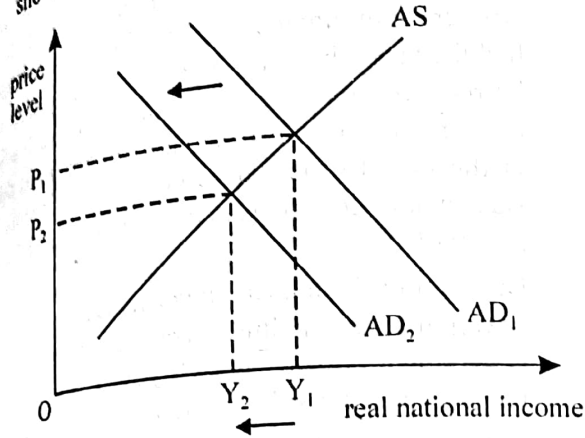
## Essay

- Unemployment is defined as people who are out of work but, have actively looked for a job over a certain period of time. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed.

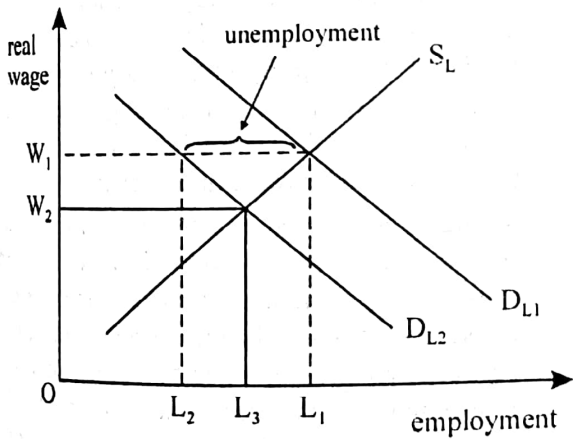
Cyclical unemployment is involuntary unemployment due to a lack of aggregate demand for goods and services. This is also known as Keynesian "demand deficient" unemployment and is associated with the transition of the economy through the business cycle. When there is an economic recession we expect to see a rising level of unemployment because of plant closures and worker lay-offs. This is due to a fall in demand leading to a contraction in output across many industries.

Although demand deficient unemployment is usually associated with economic recessions it can

also exist in the long run when the economy is constantly run below capacity. As the economy recovers from a downturn, we expect to see the problem of cyclical unemployment decline. The concept can be illustrated on the following graph showing AD & AS.



A fall in aggregate demand from AD<sub>1</sub> to AD<sub>2</sub> results in a decrease in national income from Y<sub>1</sub> to Y<sub>2</sub> and as such there is an increase in the numbers employed. Labour, after all, is a derived demand, derived from the demand for the good that is being produced. So, if there is a fall in the demand for products in the goods market then the demand for labour will fall causing unemployment. Consider the following graph.



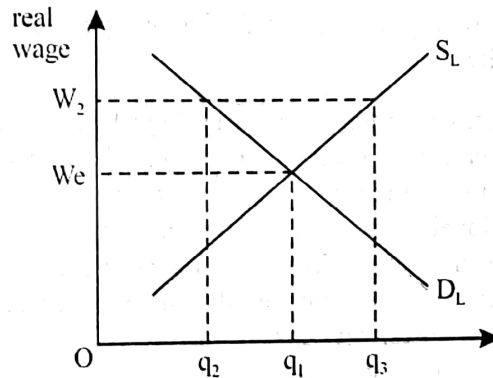
In the diagram we see that the equilibrium wage is W<sub>1</sub> giving a level of employment of L<sub>1</sub>. Keynesians argue that in times of recession, the aggregate demand curve for the economy as a whole shifts to the left. This causes the demand for labour curve to shift to the left as well (from D<sub>L1</sub> to D<sub>L2</sub>). If the real wage rate stays at W<sub>1</sub> then there will be L<sub>1</sub> - L<sub>2</sub> workers involuntarily unemployed.

Of course, the classical economists would argue that the real wage rate would fall to the new equilibrium (wage W<sub>2</sub>, employment L<sub>3</sub>). The level of employment would fall (from L<sub>1</sub> to L<sub>3</sub>) but there would be no involuntary unemployment. Keynes

argued that this would not necessarily happen because wages and prices are 'sticky downwards'. Even if the real wage rate falls, the lower incomes of the workers would lead to lower spending in the economy, a further reduction in aggregate demand and a further reduction in the demand for labour. So, it is held that the government can use macro-economic policies to increase the level of aggregate demand. These policies might involve lower interest rates or lower direct taxes. It might also encourage foreign investment into the economy from foreign multinational companies.

On the other hand classical economists believe that the causes of increase in unemployment fall into two broad categories: Equilibrium unemployment (NRU) and disequilibrium unemployment (real wage unemployment).

Real wage unemployment or classical unemployment is where trade unions use their monopoly power to derive wages above the market clearing level resulting in an excess supply of labour. Governments introducing minimum wage legislation could also cause it. Consider the following graph.



If a real wage (w<sub>2</sub>) is fixed above the equilibrium real wage (w<sub>e</sub>) then the result is an excess supply of labour equal to q<sub>3</sub> - q<sub>1</sub> real wage unemployment.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is known as the natural rate of unemployment. For various reasons not all vacancies will be filled. The problem is one of the mismatching. There are various types of equilibrium unemployment.

Frictional unemployment is transitional unemployment due to people moving between jobs: For example, newly redundant workers or workers entering the labour market for instance, university graduates, may take time to find appropriate jobs at wage rates they are prepared to accept. Thus, many are unemployed for a short time whilst involved in job search. Imperfect information in the labour market may make frictional unemployment worse if the jobless are unaware of the available

employment opportunities.

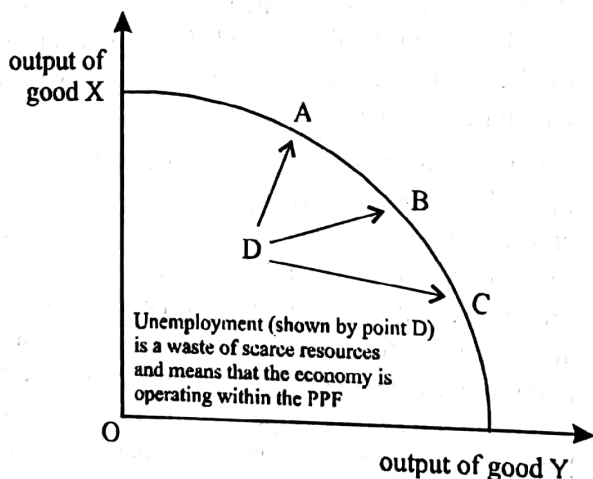
Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other parts or other industries. Hence, structural unemployment increases when there is a growing mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Hence it follows that there are several causes of increase in unemployment. However, in the long term, effective policies to reduce the total level of unemployment need to encourage an improvement in the employability of the labour supply. These may require some reforms of the tax and benefits system, a sustained period of economic growth and improving skills and reducing occupational immobility.

- (b) Most economists agree that high levels of unemployment are costly not only to the individuals and families directly affected, but also to local and regional economies and the economy as a whole. We can make a distinction between the economic costs arising from people out of work and the social costs that often result.

Unemployment causes a waste of scarce economic resources and reduces the long run growth potential of the economy. An economy with high unemployment is producing within its production possibility frontier. The hours that the unemployed do not work can never be recovered. Consider the following graph.



The existence of any idle resources means that the economy will be at a point within its production possibility frontier, point D for instance. However, all points on the PPC suggest that the economy could have produced more goods and services which would then have been available for consumption. So there is a loss of output which those workers now unemployed could have produced had they been in work. Also if unemployment can be reduced, total national output can rise leading to an improvement in economic welfare. Thus there is the cost to the whole economy in terms of wasted, unused resources leading to a lower living standard.

Besides this, high unemployment has an impact on government expenditure, taxation and the level of government borrowing each year. An increase in unemployment results in higher benefit payments and lower tax revenues. When individuals are unemployed, not only do they receive benefits but also pay no income tax. As they are spending less they contribute less to the government in indirect taxes. This rise in government spending along with the fall in tax revenues may result in a higher government borrowing requirement leading to a rise in national debt.

Unemployment wastes some of the scarce resources used in training workers. Furthermore, workers who are unemployed for long periods become de-skilled as their skills become increasingly outdated in a rapidly changing job market. This reduces their chances of gaining employment in the future, which in turn increases the economic burden on government and society.

Rising unemployment is also linked to social and economic deprivation - there is some relationship between rising unemployment and rising crime and worsening social dislocation such as increased divorce, worsening health and lower life expectancy. Areas of high unemployment will also see a decline in real income and spending together with a rising scale of relative poverty and income inequality. As younger workers are more geographically mobile than older employees, there is a risk that areas with above average unemployment will suffer from an ageing potential workforce - making them less attractive as investment locations for new businesses.

It is clear, therefore, that unemployment carries substantial economic and social costs. These costs are greatest when long-term structural unemployment is high. Indeed many governments focus their labour market policies on improving the employment prospects of the long-term unemployed.

However government needs to take an active management of the macro economy on both demand and supply sides in order to avoid costs of unemployment in general.

**Question 5**

Explain the possible causes of unemployment and explain which is responsible for most of the unemployment in your country. [12]

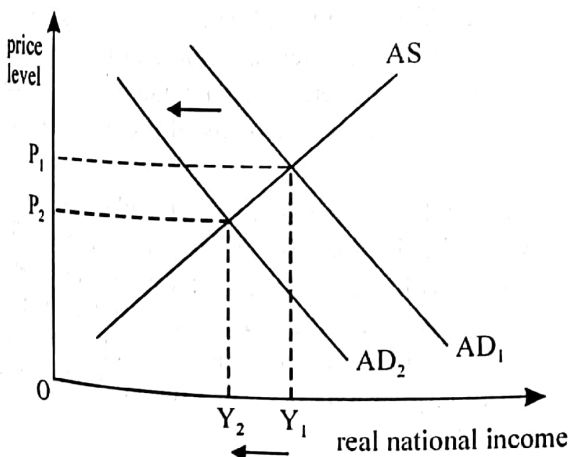
[J14/P4/Q6(a)]

**Essay**

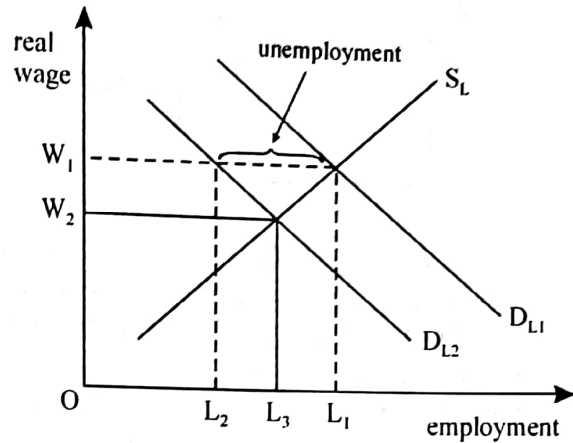
Unemployment is defined as people who are out of work but, have actively looked for a job over a certain period of time. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed.

Cyclical unemployment is involuntary unemployment due to a lack of aggregate demand for goods and services. This is also known as Keynesian "demand deficient" unemployment and is associated with the transition of the economy through the business cycle. When there is an economic recession we expect to see a rising level of unemployment because of plant closures and worker lay-offs. This is due to a fall in demand leading to a contraction in output across many industries.

Although demand deficient unemployment is usually associated with economic recessions it can also exist in the long run when the economy is constantly run below capacity. As the economy recovers from a downturn, we expect to see the problem of cyclical unemployment decline. The concept can be illustrated on the following graph showing AD & AS.



A fall in aggregate demand from AD<sub>1</sub> to AD<sub>2</sub> results in a decrease in national income from Y<sub>1</sub> to Y<sub>2</sub> and as such there is an increase in the numbers employed. Labour, after all, is a derived demand, derived from the demand for the good that is being produced. So, if there is a fall in the demand for products in the goods market then the demand for labour will fall causing unemployment. Consider the following graph.



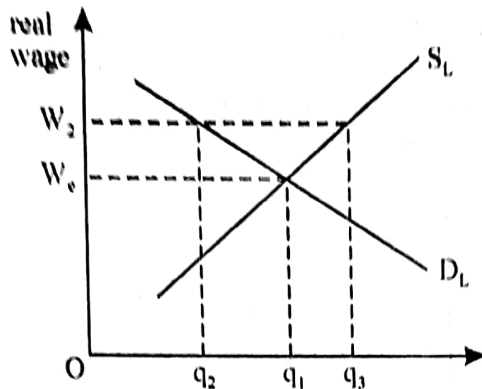
In the diagram we see that the equilibrium wage is W<sub>1</sub> giving a level of employment of L<sub>1</sub>. Keynesians argue that in times of recession, the aggregate demand curve for the economy as a whole shifts to the left. This causes the demand for labour curve to shift to the left as well (from D<sub>L1</sub> to D<sub>L2</sub>). If the real wage rate stays at W<sub>1</sub> then there will be L<sub>1</sub> - L<sub>2</sub> workers involuntarily unemployed.

Of course, the classical economists would argue that the real wage rate would fall to the new equilibrium (wage W<sub>2</sub>, employment L<sub>2</sub>). The level of employment would fall (from L<sub>1</sub> to L<sub>2</sub>) but there would be no involuntary unemployment. Keynes argued that this would not necessarily happen because wages and prices are 'sticky downwards'. Even if the real wage rate falls, the lower incomes of the workers would lead to lower spending in the economy, a further reduction in aggregate demand and a further reduction in the demand for labour. So, it is held that the government can use macro-economic policies to increase the level of aggregate demand. These policies might involve lower interest rates or lower direct taxes. It might also encourage foreign investment into the economy from foreign multinational companies.

On the other hand classical economists believe that the causes of increase in unemployment fall into two broad categories: Equilibrium unemployment (NRU) and disequilibrium unemployment (real wage unemployment).

Real wage unemployment or classical unemployment is where trade unions use their monopoly

power to derive wages above the market clearing level resulting in an excess supply of labour. Governments introducing minimum wage legislation could also cause it. Consider the following graph.



If a real wage ( $W_2$ ) is fixed above the equilibrium real wage ( $W_0$ ) then the result is an excess supply of labour equal to  $q_3 - q_2$  real wage unemployment.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is known as the natural rate of unemployment. For various reasons not all vacancies will be filled. The problem is one of the mismatching. There are various types of equilibrium unemployment.

Frictional unemployment is transitional unemployment due to people moving between jobs: For example, newly redundant workers or workers entering the labour market for instance, university graduates, may take time to find appropriate jobs at wage rates they are prepared to accept. Thus, many are unemployed for a short time whilst involved in job search. Imperfect information in the labour market may make frictional unemployment worse if the jobless are unaware of the available employment opportunities.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other parts or other industries. Hence, structural unemployment increases when there is a growing mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Apart from others the main cause of unemployment in Pakistan is the persistent deficiency of aggregate

demand chiefly due to the lack of investment and relatively slow growth in exports. Thus ever increasing labour force and rather slow progression in AD has led to growing unemployment over a period of time.

Question 6

Explain the difference between structural, cyclical and seasonal unemployment and discuss whether a general rise in income in a country would have the same effect on each of these types of unemployment.

[13]  
[J15/P4/Q2(b)]

Essay

Unemployment is defined as people who are out of work but, have actively looked for a job over the previous four weeks and who are available to work within the next two weeks. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is also known as the natural rate of unemployment. For various reasons not all vacancies will be filled. The problem is one of the mismatching. Structural and seasonal are two such type of unemployment.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other parts or other industries. Moreover, there may be a technological change resulting in mismatch between skills of unemployed workers and skills required for jobs. Hence, structural unemployment exists where there is a mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment, on the other hand occurs when the demand for certain types of labour fluctuates with the seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Keynesian unemployment is referred to as demand deficient or cyclical unemployment. The term cyclical unemployment entails the alternate booms and slumps in the level of economic activity due to the fluctuations in aggregate demand. Unemployment increases when aggregate demand is too small, there being a deficiency of demand for goods and services. Since labour is a derived demand, the lack of demand for goods and services will also lead to a deficiency of demand for labour.

A general rise in incomes could result in an increase in aggregate demand. So, when demand for all goods and services rises firms will have an economic incentive to increase their output levels and therefore they would require more of all the resources including labour. Since the source of cyclical unemployment is the deficiency of aggregate demand therefore it is likely to decrease. Structural unemployment, however may not decrease as the real cause of it is that of mismatch between the skills required by the firms and the skills that those unemployed possess. Textile workers made redundant will have no job opportunities if there is a growing demand for workers in electronic industry.

So far as seasonal unemployment is concerned it may change due to the rise in demand. It, however, depends on whether increasing demand for labour includes the jobs requiring the skills that the worker possess and also the workers can work in other industries in their off season. Agricultural workers, for instance, can work in construction industry.

It, therefore, follows that rising general incomes may not change all types of unemployment.

#### Question 7

Explain the causes of unemployment and consider what type of unemployment is the most serious for the country in which you live.

[12]

[N16/P4/Q5(a)]

#### Essay

Unemployment is defined as people who are out of work but, have actively looked for a job over the previous four weeks and who are available to work within the next two weeks. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as

those who are employed and unemployed.

The causes of unemployment fall into two broad categories: Equilibrium unemployment (NRU) and disequilibrium unemployment (real wage unemployment).

Real wage unemployment or classical unemployment is where trade unions use their monopoly power to derive wages above the market clearing level resulting in an excess supply of labour. Governments introducing minimum wage legislation could also cause it.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is also known as the natural rate of unemployment. For various reasons not all vacancies will be filled. The problem is one of the mismatching. There are various types of equilibrium unemployment.

Frictional unemployment is transitional unemployment due to people moving between jobs: For example, newly redundant workers or workers entering the labour market for instance, university graduates, may take time to find appropriate jobs at wage rates they are prepared to accept. Thus, many are unemployed for a short time whilst involved in job search. Imperfect information in the labour market may make frictional unemployment worse if the jobless are unaware of the available employment opportunities.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other parts or other industries. Hence, structural unemployment exists where there is a mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Keynesian unemployment is referred to as demand deficient or cyclical unemployment. The term cyclical unemployment entails the alternate booms and slumps in the level of economic activity due to the fluctuations in aggregate demand. Unemployment increases when aggregate demand is too small, there being a deficiency of demand for goods and services. Since labour is a derived demand, the lack

of demand for goods and services will also lead to a deficiency of demand for labour.

In Pakistan, there is a vast open unemployment and disguised unemployment. Generally unemployment has spread with urbanization and the spread of education because the manufacturing sector failed to expand along with the growth of labour force. There is unemployment among the educated who fail to find jobs due to the lack of manpower planning. Then there is concealed or disguised unemployment. This is when the workers are unable to find work throughout the year. Generally persistent high unemployment in Pakistan is attributed to undeveloped natural resources, lack of capital formation, technological backwardness and lack of enterprise and initiative. So, high unemployment in Pakistan is persisting in the long run because our economy is continuing to operate below its capacity.

### Question 8

In many countries there is a concern about the rate of unemployment.

Consider what are likely to be the main causes of unemployment. [12]

[N17/P4/Q7(a)]

### Essay

Unemployment is defined as people who are out of work but, have actively looked for a job over the previous four weeks and who are available to work within the next two weeks. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed. In a modern economy unemployment has a variety of causes. Some of them relate to the general level of economic activity, others are the result of a failure of the labour market in an economy to work optimally.

The causes of unemployment attributed to the failure of labour market fall into two broad categories: Equilibrium unemployment (NRU) and disequilibrium unemployment (real wage unemployment).

Real wage unemployment or classical unemployment is where trade unions use their monopoly power to drive wages above the market clearing level thus resulting in an excess supply and a permanent disequilibrium in the labour market. Governments introducing minimum wage legislation could also cause it.

Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is also known as the natural rate of unemployment. For various reasons not all vacancies will be filled as the problem is one of the mismatching. There are various types of equilibrium unemployment.

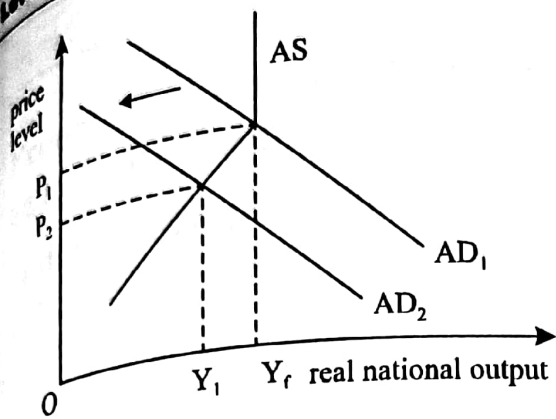
Frictional unemployment is transitional unemployment due to people moving between jobs: For example, newly redundant workers or workers entering the labour market for instance, university graduates, may take time to find appropriate jobs at wage rates they are prepared to accept. Thus, many are unemployed for a short time whilst involved in job search. Imperfect information in the labour market may make frictional unemployment worse if the jobless are unaware of the available employment opportunities.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy due to a long run decline in demand in particular industries cannot immediately take up jobs in other parts or other industries. Hence, structural unemployment exists where there is a mismatch between their skills and the requirements of the new job opportunities.

Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year. For instance, employment in fruit picking and holiday catering is seasonal in character. The difficulty is that the skills required by different seasonal jobs are not substitutable.

Keynesian unemployment is referred to as demand deficient or cyclical unemployment. The term cyclical unemployment entails the alternate booms and slumps in the level of economic activity due to the fluctuations in aggregate demand. Unemployment increases when aggregate demand is too small, there being a deficiency of demand for goods and services. Since labour is a derived demand, the lack of demand for goods and services will also lead to a deficiency of demand for labour.





A fall in aggregate demand from  $AD_1$  to  $AD_2$  results in a reduction of national income from  $Y_f$ , full employment level of output, to  $Y_1$  and as such there is an increase in the numbers unemployed. Although demand deficient unemployment is usually associated with economic recessions it can also exist in the long run when the economy is constantly run below capacity. As the economy recovers from a downturn, we expect to see the problem of cyclical unemployment decline.

Question 9

Robots are increasingly used in various areas of production.

Explain the type of unemployment which may arise as a result of the increased use of robots.

Consider the contribution this may make to total unemployment in an economy. [12]

[N18/P4/Q5(a)]

Essay

Unemployment is defined as people who are out of work but, have actively looked for a job over a certain period of time. Unemployment can be expressed as a number or a percentage. Unemployment rate is the percentage of the work force that is unemployed. The work force can be defined as those who are employed and unemployed.

Economists often identify different causes of unemployment. Cyclical unemployment, for instance, is also known as Keynesian "demand deficient" unemployment and is associated with the transition of the economy through the business cycle. On the other hand classical economists believe that the causes of increase in unemployment fall into two broad categories: Equilibrium

unemployment (NRU) and disequilibrium unemployment (real wage unemployment). Real wage unemployment is where trade unions use their monopoly power to derive wages above the market clearing level or governments introducing minimum wage legislation. Even when there is no general disequilibrium in the economy at the current wage levels, there will still be some unemployment. This is known as the natural rate of unemployment (NRU). For various reasons not all vacancies will be filled. For instance, unemployment associated with people moving between jobs is known as frictional unemployment. Seasonal unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year.

Structural unemployment arises from changes in the pattern of demand or supply in the economy. People made redundant in one part of the economy in particular industries cannot immediately take up jobs in other parts or other industries. Hence, structural unemployment increases when there is a growing mismatch between their skills and the requirements of the new job opportunities. The type of unemployment which may arise as a result of the increased use of robots is known as technological unemployment and it is considered to be part of a wider concept known as structural unemployment.

Introduction of robots in production may allow the same level of output to be produced with fewer workers. This is known as 'labour saving technical progress'. It therefore can lower demand for the workers who possess the skills to do the jobs that are now performed by robots. For example, computer technology, the introduction of automated teller machines (ATMs), and electrical relays and digital switching technology greatly reduced the need for typists, bank tellers and telephone operators. Those workers were made redundant.

Unless output expands sufficiently to absorb the surplus labour, people will be made redundant in the short run at least. In the long run, however, the logic of the Luddite Fallacy is that as jobs are lost in one area of the economy due to improved technology, new jobs are created in others. There are two main reasons why new technology replaces lost jobs. Firstly, Jobs are created to make and design the new machines, and secondly, increased productivity enables higher wages and relatively lower prices. This gives consumers more disposable income which can be spent on a wider range of goods leading to a rise in AD and a fall in overall unemployment. Therefore, new jobs are created

in new industries - due to the increased purchasing power. Similarly increased profit can lead to increased investment creating more jobs elsewhere.

So introduction of robots in production doesn't have to increase overall unemployment, even though some types of workers may temporarily lose their jobs. This is particularly true if labour markets in a country are flexible. However, if there are labour market inflexibilities, then it can cause unemployment - at least, for a certain time period. For example, due to technological change, coal miners may lose their jobs. However, due to occupational and geographical immobilities, they may be unable to take new jobs in the service sector for a miner may not have skills to work in computers; he may find it hard to relocate. In this case, technological change can cause a temporary increase in unemployment - which will last until the coal miners acquire some other skills to move in other industries. Also if technological unemployment resulting from increased use of robots is limited to the industry that employed a fraction of the country's labour force then its contribution to overall unemployment could just be negligible.

It therefore follows that new technology can benefit everyone in society - enabling growth in productivity, real wages, shorter working weeks and greater job satisfaction - and any technological unemployment will just prove to be short-lived.