

CAMBRIDGE A LEVEL ECONOMICS TOPICAL ESSAY QUESTIONS

UNEMPLOYMENT

PAST QUESTIONS

1. Artificial Intelligence

Artificial Intelligence (AI) is a form of technological progress. It involves computers or computer-controlled robots engaging in tasks usually performed by humans. Many businesses invest in AI to reduce their costs, to increase their efficiency by reducing human errors and to raise business revenues and profits.

The COVID-19 pandemic has accelerated this process – from increased use of contactless card payment systems to large-scale investment in driverless taxis. In China, a leading internet search company plans to follow some of its rivals in the United States (US) by starting a driverless taxi service in 100 cities by 2030.

Nevertheless, the pace of growth in AI has raised concerns that this will result in increased unemployment. One study suggests that up to 38% of US jobs are at risk from automation by the mid-2030s. To date, Japan has between 200 and 300 AI companies. It is also the leading supplier of industrial robots and third, behind China and the US, in spending on research and development into AI.

Just a few years ago, the growth of the internet created similar fears. Despite these concerns, the technology created millions of jobs and contributed as much as 10.5% towards US GDP in 2020. As a result, some economists suggest that the movement towards AI will fundamentally change the world and the way we work and live but will not lead to large rises in unemployment. AI technology may create more jobs than it destroys.

Nonetheless, the danger remains that automation will lead to a society of winners and losers. These newly created jobs will require new skills and significant investment in training young people and retraining adults. Therefore, governments may need to implement targeted policies to ensure that any changes to structural unemployment are only short-lived. However, rising national debt alongside projections of low economic growth, as shown in Table 1.1, may reduce the ability of governments to deliver such policies.

Table 1.1: Selected macroeconomic indicators for Japan and the US, 2020 to 2025

	Japan			us				
	Central government debt (% of GDP)	Unemployment rate (%)	Real GDP growth (% change from previous year)	Central government debt (% of GDP)	Unemployment rate (%)	Real GDP growth (% change from previous year)		
2020	254.1	2.8	-4.6	133.9	8.1	-3.4		
2021	256.9	2.8	2.4	133.3	5.4	6.0		
2022*	252.3	2.4	3.2	130.7	3.5	5.2		
2023*	250.8	2.3	1.4	131.1	3.0	2.2		
2024*	251.0	2.3	0.8	131.7	3.0	1.7		
2025*	251.3	2.3	0.6	132.5	3.1	1.7		

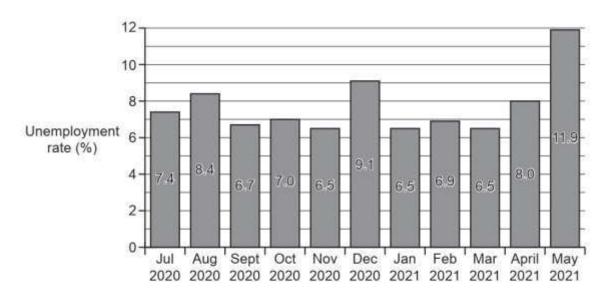
*forecast Source: IMF, 2021

Assess the possible impact on unemployment in Japan as a result of the increased investment in AI. [6]

- 2. (a) Explain three causes of unemployment and consider which cause is likely to be most damaging to a high-income economy. [8]
- (b) Assess which expansionary macroeconomic policy would be most likely to enable a government to meet its economic objective of a low rate of unemployment. [12]
- 3. (a) Explain two methods of measuring unemployment and consider the extent of the possible difficulties in obtaining an accurate measurement of unemployment. [8]
- (b) Assess whether supply-side policy is likely to be equally successful in reducing both structural and cyclical unemployment. [12]

4. Unemployment in India

Changes in the rate of unemployment in India between July 2020 and May 2021 can be seen in Fig. 1.1.



Source: tradingeconomics.com, July 2021

Fig. 1.1: India's unemployment rate, July 2020 to May 2021

India's unemployment rate rose in December 2020, reaching a six-month high. The fact that the unemployment rate has been rising during this period, despite an economic recovery, has raised concerns among economists at the Centre for Monitoring Indian Economy (CMIE) research institute in Mumbai, although they recognise that there are possible difficulties in the measurement of unemployment.

One of the reasons for the increase in unemployment in December 2020 is an increase in frictional unemployment. According to CMIE, India's labour force increased from 421 million in November 2020 to 427 million in December 2020 and the majority of these new workers were unable to find work immediately. Many of these people are reluctant to relocate to take jobs and others are unaware of job vacancies.

Another reason for this increase in unemployment in India is because of seasonal unemployment. One of the main reasons behind rising unemployment has been the failure of the agricultural sector to absorb the additional labour. One economist

at CMIE has stated: 'Farming is the last resort of many who are without work. However, December is not the month in which farming can absorb labour. This is the month when it needs fewer workers. In December 2020, the job losses from agriculture were 9.8 million.

The economists at CMIE stated that the rise in unemployment in certain months was not a good sign for the Indian economy as it could lead to higher income inequality and poverty.

Source: Adapted from India Today, 5 January 2021

- (a) Using the data in Fig. 1.1, calculate the change in India's unemployment rate between July 2020 and May 2021. [2]
- (b) Using the information provided, explain how agriculture caused seasonal unemployment in India in December 2020. [2]
- (c) Consider the extent to which difficulties may arise in the measurement of unemployment in India. [4]
- (d) Assess whether seasonal unemployment is likely to be a more serious problem than frictional unemployment for India's economy. [6]
- (e) Assess the possible measures that could be taken to increase employment in a country such as India. [6]

5. Electric cars create challenges for oil producers

Oil companies are facing uncertainty in 2020 as the COVID-19 pandemic causes a collapse in demand for their product, but car producers are predicting the pandemic will help accelerate the use of electric cars. Looking ahead, cuts in investment by oil companies as their revenues fall could reduce supply enough to cause a rise in oil prices. This makes electric cars more attractive just as car producers increase production.

Table 1.1 Selected data from the oil and car industries, 2014 to 2020

	2014	2015	2016	2017	2018	2019	2020
Average real global price of oil (US\$ per barrel)	93.2	48.5	43.3	50.8	65.2	57.0	39.7
Global sales of electric cars (millions)	N/A	0.6	0.8	1.3	2.1	2.2	2.3

Sources: Macrotrends.net and World Economic Forum

However, the rise of electric car sales could slow within the next few years due to a worldwide shortage of the supply of lithium needed for car batteries. Demand for lithium could triple by 2025 to one million tonnes per year and then double again to two million tonnes per year by 2030. A typical lithium mine produces 30000 tonnes per year which means the market needs approximately four new mines per year to meet demand. However, it usually takes about six years to discover, develop and put a lithium mine into production.

Rising global sales of electric cars are impacting on world oil producers. The boom years for the oil industry are over as economies start to deal with climate change. This will have significant implications for petrostates (countries whose economies are almost totally reliant on oil and gas).

Volatile oil prices, as illustrated in Table 1.1, have already left many petrostate governments struggling. The governments of most Middle Eastern oil producing countries cannot maintain a balanced budget at the 2020 average oil price of around US\$40. Years of unstable oil revenues have left these countries with significant levels of national debt.

Venezuela offers a cautionary tale. Serious mismanagement has caused its oil output in 2020 to drop to about 10% of its 2000 level. Gross domestic product (GDP) has fallen by more than 75% in the past 5 years and more than 5 million people have left the country.

The solution is diversification. Wealthy Middle East states, such as Oman and Saudi Arabia, are investing in renewable energy and international tourism. Attempts at change by less wealthy petrostates such as Venezuela are hampered by a lack of capital at home and because they are often unable to attract international

investors. As a result, they tend to focus on short-term rather than long-term economic growth.

Ultimately, many petrostates are likely to need outside support to diversify their economies. In addition to financial aid, it is suggested that wealthy countries should also offer technical assistance such as retraining workers, help designing new tax systems and support with the adoption of renewable energy.

Sources: Adapted from: Matthew Green and Simon Jessop, Reuters, 19 May 2020

and: STV news PA Media, August 2021 and: energymonitor.ai/policy, April 2021

Explain whether unemployment caused by the diversification of petrostates away from oil and gas production is likely to be cyclical or structural and consider which type of unemployment is likely to be more damaging to these economies. [6]

- 6. (a) With reference to a country that is known to you, explain the main causes of unemployment and consider which of these causes is most significant. [8]
- (b) Assess whether supply-side policy is the only way of reducing long-term unemployment in an economy. [12]

MARK SCHEME

Table A: AO1 Knowledge and understanding and AO2 Analysis

Level	Description			
3	 A detailed knowledge and understanding of relevant economic concepts is included, using relevant explanations. Explanations are supported by examples, where appropriate. The response clearly addresses the requirements of the question and explains economic issues, and fully develops these explanations. Analysis is developed and detailed and makes accurate and relevant use of economic concepts and theories. Where necessary, there is accurate and relevant use of analytical tools such as diagrams and formulae, and these are fully explained. Responses are well-organised, well-focused and presented in a logical and coherent manner. 	6–8		
2	 Knowledge and understanding of some relevant economic concepts is included, using explanations and examples that are limited, overgeneralised or contain inaccuracies. The response addresses the general theme of the question and the relevant economic issues, with limited development. Analysis is generally accurate with some development but little detail. Uses analytical tools such as diagrams and formulae where necessary. Use of these tools is partially accurate or not fully explained. Responses are generally logical and coherent but are sometimes lacking in focus or organisation. 			
1	 A small number of relevant knowledge points are included and the response is limited by significant errors or omissions. The response has little relevance to the question. Analysis where provided is largely descriptive. Use of analytical tools such as diagrams and formulae, where necessary, may contain significant errors or be omitted completely. Responses show limited organisation of economic ideas. 			
0	No creditable response.			

Table B: AO3 Evaluation

Level	Description	Marks
2	 Provides a justified conclusion or judgement that addresses the specific requirements of the question. Makes developed, reasoned and well-supported evaluative comment(s). 	3–4
1	Provides a vague or general conclusion or judgement in relation to the question.	1–2
	 Makes simple evaluative comment(s) with no development and little supporting evidence. 	
0	No creditable response.	0

1. In the short run many jobs may be lost as AI capital equipment replaces labour operated machines and vehicles. E.g., Thousands of truck drivers lose their jobs: (1) for statement, (1) for example. Extra mark for some further elaboration (1).

In the long run more job opportunities may arise as was the case with the internet. E.g., High tech maintenance jobs for Al machinery. (1) for statement, (1) for example. Extra mark for some further elaboration (1).

Max of 5 marks plus 1 for Evaluated Conclusion.

2. (a) up to 3 marks for AO1 Knowledge and understanding up to 3 marks for AO2 Analysis

up to 2 marks for AO3 Evaluation.

AO1 Knowledge and Understanding (max 3 marks)

For a clear and accurate explanation of three causes of unemployment from frictional, structural, cyclical (demand deficient), seasonal or technological (3x1).

AO2 Analysis (max 3 marks)

Each cause identified must be analysed, and judgements made about how damaging it might be for a high-income economy (321). For example, points to consider may include:

- Frictional unemployment may be dependent on information provision.
- Structural unemployment may be permanent and difficult to solve.
- Cyclical unemployment depends on the economic cycle.
- Seasonal depends on alternative sources of employment.
- Technological depends on occupational or geographical immobility of labour.

AO3 Evaluation (max 2 marks)

For an answer that clearly assesses how damaging each cause may be to a high-income developed economy in comparison with each other (1) that leads to a justified conclusion as to which may be the most damaging (1).

AO1 Knowledge and understanding 3

AO2 Analysis 3

AO3 Evaluation 2

(b) AO1 and AO2 out of 8 marks. AO3 out of 4 marks.

Indicative content

Responses may include:

AO1 Knowledge and understanding and AO2 Analysis

- The analysis must focus on the advantages and disadvantages of using at least two expansionary macroeconomic policies to keep unemployment low. For example, one policy might be an expansionary supply-side policy with an emphasis on training and education which would allow people to be more employable, e.g., by having more relevant skills but it may be time-consuming and costly.
- This chosen policy must then be contrasted with an alternative policy/policies. For example, expansionary monetary policy may be suggested with the use of low interest rates to encourage investment and boost employment, but the investment may be directed towards more capital-intensive production.

Note. The focus of the question must be on how a low rate of unemployment may be achieved.

Level 1 responses will be assertive and lacking in explanations / mainly descriptive and/or or mainly lacking in relevance to the question.

Level 2 responses may contain some inaccuracies and will be one sided.

Analysis will be explained at least in part and will be largely relevant to the question.

Level 3 responses will consider alternative policies / concepts etc. and will be balanced. Explanations of points raised will be offered and will be accurate and relevant to the question.

AO3 Evaluation:

- •That clearly compares the likely success of at least two expansionary macroeconomic policies that leads to:
- A valid conclusion as to which policy would be most likely to meet the economic objective of a low rate of unemployment.
- Accept all valid responses.

AO1 Knowledge and understanding and AO2 Analysis 8

AO3 Evaluation 4

3. (a) up to 3 marks for AO1 Knowledge and understanding, up to 3 marks for AO2

Analysis, and up to 2 marks for AO3 Evaluation.

AO1 Knowledge and Understanding (max 3 marks)

The question refers to methods of measurement and not types of unemployment. Answers focused on types and not measures cannot answer the question without any reference to methods of measurement and **must not be rewarded.**

For the identification of 2 methods of measuring unemployment (1) plus for a brief explanation of both measures 2x(1).

Guidance for explanation marks:

The two most used measures are the claimant count measure which is a measure based on those claiming benefits (1) and the labour force measure which is a measure of unemployment based on a survey that identifies people who are

actively seeking a job (1). However, if the meaning of these measures is clearly understood then they do not need to explicitly refer to the terms.

AO2 Analysis (max 3 marks)

- The difficulties in obtaining an accurate measurement using both methods should be considered. e.g., the claimant count figure may omit people actively looking for a job and may include people who are, in reality, not looking for a job.
- Whereas the labour force measure is based on sampling which may not be entirely accurate due to sampling errors and/or problems associated with data collection in general.

Note: maximum of 2 marks if the difficulties of only one method of measurement are analysed.

AO3 Evaluation (max 2 marks)

An assessment of the difficulties of both measures is required with an overall assessment of the extent of the possible difficulties (1), leading to a valid conclusion (1).

AO1 Knowledge and understanding 3

AO2 Analysis 3

AO3 Evaluation 2

(b) AO1 and AO2 out of 8 marks. AO3 out of 4 marks.

Indicative content

Responses may include:

AO1 Knowledge and understanding and AO2 Analysis

- The discussion should focus on the strengths and weaknesses of supply side policy to solve both cyclical/demand-deficient and structural
- For example, supply side policies may be used to encourage investment into education and training and infrastructure to solve structural problems in the economy and hence structural unemployment.
- However, supply side policies may be less successful in solving cyclical/demand deficient unemployment as they have less impact on the level of aggregate demand (AD) unless for example, if they involve a injection of government spending due to the additional investment.
- Other disadvantages include the potential cost of the policy and the time taken for the policy to be effective.
- Although not necessary, other demand side policies, e.g., fiscal and monetary policies, may be analysed to explain the possible disadvantages of supply side policy. This is an acceptable approach.

Level 1 responses will be assertive and lacking in explanations / mainly descriptive and/or or mainly lacking in relevance to the question.

Level 2 responses may contain some inaccuracies and may be one sided. Analysis will be explained at least in part and will be largely relevant to the question.

Level 3 responses may consider alternative policies / concepts etc. and will be balanced. Explanations of points raised will be offered and will be accurate and relevant to the question.

AO3 Evaluation

- Requires an assessment of the advantages and disadvantages of supply side policies in solving both types of unemployment. Leading to
- An overall conclusion as to whether supply side policy is always (more) likely to be equally (more) successful in solving both types of unemployment.

A one-sided response cannot gain any marks for evaluation.

AO1 Knowledge and understanding and AO2 Analysis 8

AO3 Evaluation 4

4. (a) Over this period as a whole, the unemployment rate has increased from 7.4% in July 2020 to 11.9% in May 2021. (1 mark)

This is an increase of 4.5% in India's unemployment rate. (1 mark)

OR

This is an increase of 60.8% (the exact figure is 60.81081%) in India's unemployment rate (4.5 / 7.4 $\boxed{2}$ 100); accept either 60% or 61%. (1 mark)

(b) The agricultural sector has failed to absorb the influx of additional labour; December is not a good month to be taking on more agricultural workers; it is more likely to be a time when agricultural jobs are being lost. (1 mark)

In December 2020, 9.8 million jobs were lost in agriculture, more than the 6 million additional labour. (1 mark)

(c) Inactive workers not actively seeking employment who might look for work if their situation changed. (Up to 2 marks)

Discouraged/disincentivised workers who have had no success in finding employment. (Up to 2 marks)

Disguised unemployment, i.e. people might be in employment, but are not really doing any meaningful work. (Up to 2 marks)

Unreported employment: some workers in India may be registered as unemployed but are in fact in employment, possibly in the illegal or underground or informal economy. (Up to 2 marks)

The efficiency of the tax collection system could be a valid difficulty in the measurement of unemployment. (Up to 2 marks)

The scale of the operation could also be a valid difficulty. (Up to 2 marks)

Particular difficulty of measurement in rural areas of India. (Up to 2 marks)

3 marks maximum

Evaluation

Offers a valid judgement on the extent to which these are significant difficulties in the measurement of unemployment in India. (1 mark)

1 mark maximum

(d) Up to 4 marks for explanation/analysis:

Explanation/analysis of seasonal unemployment in India, such as in relation to employment in the agricultural sector. (Up to 2 marks)

Explanation/analysis of frictional unemployment in India resulting from the reluctance of people to relocate to other places or other sectors to take jobs, due to geographical immobility and/or occupational immobility. (Up to 2 marks)

Guidance:

Award 2 marks if detailed explanation/analysis of one type of unemployment. Award 1 mark for less detailed explanation/analysis of one type of unemployment.

Up to 2 marks for evaluation:

Relevant evaluation which considers both types of unemployment. (1 mark)

A conclusion on the extent to which one type of unemployment is a more serious problem than the other for India's economy. (1 mark)

(e) Up to 4 marks for explanation/analysis:

Fiscal policy could be used to increase employment, such as through decreases in taxes and/or increases in public expenditure, e.g. on infrastructure investment projects, to include potential problems of such measures.

(Up to 2 marks)

Monetary policy could be used to increase employment, such as through decreases in interest rates and/or increases in the money supply, to include potential problems of such measures.

(Up to 2 marks)

Supply-side policies could be used to increase employment, such as through making the labour market more flexible, increasing the training/retraining provision, reducing disincentives to work, such as reducing unemployment benefits, reducing marginal tax rates and the encouragement of investment, to include potential problems of such measures.

(Up to 2 marks)

4 marks maximum

Up to 2 marks for evaluation:

Relevant evaluation such as in relation to the extent of the unemployment (Fig. 1.1 shows that the rate of unemployment in India has varied between 6.5% in November 2020 and January 2021 and 11.9% in May 2021), whether the measures are essentially short-term or long-term (particularly the case with supply-side measures) and whether they are concentrated in particular regions of a country.

5. Up to 4 marks for the explanation/analysis

For explaining that the potential unemployment in this situation is likely to be structural and why (1)

For analysis and comparison of the problems caused by **both** cyclical **and** structural unemployment (maximum of 2 marks if only one type of unemployment is considered) (3)

That leads to

Up to 2 marks for evaluation – these can only be awarded for relevant analysis of the problems.

- Must be related to issues faced by petrostates.
- Which must compare the problems of both types of unemployment within such economies?
- Reaches an overall and justified conclusion about which type of unemployment would be most damaging for these economies.

Guidance

The explanation, analysis, and evaluation should consider both types of unemployment and points to consider may include:

- Structural unemployment is likely to be caused by problems within the supply side whereas cyclical unemployment is caused by a lack of AD in the economy.
- Long and short run impacts
- The ease of curing the different types of unemployment
- The potential costs to an economy

6. (a)

- up to 3 marks for AO1 Knowledge and understanding up to 3 marks for AO2 Analysis
- up to 2 marks for AO3 Evaluation.

AO1 Knowledge and understanding (max 3 marks)

- For an understanding of what is meant by/a definition of unemployment (1)
- For an understanding of what is meant by at least two types of unemployment (2 x 1)

AO2 Analysis (max 3 marks)

An analysis of the causes of these two types of unemployment and their significance applied to a named country known to the candidate. **(up to 3 marks)**

Note: If only 1 type of unemployment is analysed then 2 marks maximum. If there is no named country, then 1 mark maximum.

AO3 Evaluation (max 2 marks)

For an evaluation of which cause is the most significant in the named country leading to a justified conclusion (reserve 1 mark).

AO1 Knowledge and understanding 3

AO2 Analysis 3

AO3 Evaluation 2

(b) AO1 and AO2 out of 8 marks. AO3 out of 4 marks.

Indicative content

Responses may include:

AO1 Knowledge and understanding and AO2 Analysis

- Analysis of what is meant by supply side policy and how it can be applied to reduce **long-term unemployment** e.g., by retraining and updating skills, by providing information on job vacancies, by encouraging business start-ups etc.
- Analysis of the advantages of using supply side policy e.g., may be noninflationary, may be more long-term etc.
- Analysis of the disadvantages of supply side policy e.g., may take a long time to have an effect, opportunity cost, receptiveness e.g., of the workforce, policies may not work depending on the type of unemployment e.g., demand side policy may be more applicable for cyclical unemployment.
- An analysis of the advantages and disadvantages of at least one alternative macroeconomic policy.

L3 lower-level **max** if only the advantages and disadvantages of supply side policy are analysed. L2 max if only advantages **OR** disadvantages of supply side policy are analysed.

AO3 Evaluation

• For an evaluation of whether supply side policy is the only way of reducing long term unemployment leading to a reasoned conclusion.

Accept all valid responses.

A one-sided response cannot gain any marks for evaluation.

AO1 Knowledge and understanding and AO2 Analysis 8

AO3 Evaluation 4