**Question 2: Sustainable and inclusive economic growth in Asia**

**Table 2: Singapore’s macroeconomic indicators**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2016 | 2017 | 2018 | 2019 |
| GDP  (in current millions US$) | 318,652 | 341,863 | 373,217 | 372,062 |
| Inflation rate (%) | -0.53 | 0.58 | 0.44 | 0.57 |
| Unemployment (%) | 4.08 | 4.2 | 4.02 | 4.11 |
| GINI coefficient  (before taxes and transfers) | 0.458 | 0.459 | 0.458 | 0.452 |

Sources: *WorldBank* and *Singstat*

**Extract 6: Robots to wipe out 20 million jobs around the world by 2030**

The use of robots will see a significant boost to productivity and economic growth and some new types of job we can't even yet foresee,” said Mr Lambert, Director of Economic Consulting for Asia at Oxford Economics. However, up to 20 million manufacturing jobs will be lost globally to robots by 2030. And the displacement of jobs will not be evenly spread around the world, or within countries, according to a study published by Oxford Economics, a UK-based research firm. Lower-skilled regions, which tend to have weaker economies and already-high unemployment rates, are much more vulnerable to the job losses.

When asked about the impact of automation in Singapore, Mr Lambert said that it was well positioned to benefit from this new generation of robotics as it has a modern and upgradeable infrastructure, a supportive regulatory framework and a strong investment environment. “Those workers in Singapore that are displaced by technology will have to adapt their skills to the evolving demands of the future economy but the government already has put in place schemes to help to retrain workers displaced by technology,” he said. “Singapore also has an ageing population (more so than most) and restraints on inward migration, so robots may be particularly helpful in keeping the economy growing,” Mr Lambert noted.

Source: *The Straits Times*, 26 June 2019

**Extract 7: Singapore can achieve steady, sustained growth**

Singapore’s economy must continue to grow, and that is why the government is pressing on with its economic transformation plans, said Prime Minister Lee Hsien Loong. Speaking at the biennial People's Action Party conference, he pointed out that there are already some early successes, and “companies big and small are restructuring themselves, embracing technology and training workers.” He noted that high-tech industries such as robotics, aerospace engineering and digital farming have taken root in Singapore.

Mr Lee added that Singapore has also attracted some unexpected investments of late, singling out British technology company Dyson's announcement that it will manufacture electric cars here. This means that, for the first time in more than 40 years since the old Ford Factory shut down, cars ― and electric ones, at that ― will be made in Singapore again. “We are back in the same industry but a different level, in a modern high-tech form. It will create jobs for Singaporeans,” said Mr Lee. “It shows that with technology and a skilled workforce, we can overcome our traditional constraints of scarce land and higher labour costs, and create new and exciting opportunities for Singaporeans,” he added.

Source: *The Business Times*, 12 November 2018

**Extract 8: China to focus on sustainable growth, not GDP targets**

China's growth will no longer be a numbers game, signalling Beijing's intention to move away from annual growth targets. This will allow China to focus on high-quality growth over the long term, said Mr Yang Weimin, deputy director of the Office of the Central Leading Group on Financial and Economic Affairs. Mr Yang said: “China's economy has transitioned to a high-quality development stage, as the lack of capacity is no longer the most acute problem of our economic development.” Instead, the more pressing issue is sustainable growth, where growth is not derived at the expense of the environment.

Mr Xi Jinping, President of the People’s Republic of China, outlined a two-stage goal – to become a top innovative nation by 2035 and a global leader in comprehensive national strength and international influence by 2050. Other targets Mr Xi hopes to achieve by 2035 includes the meeting of air-quality targets. Analysts said that a shift away from hard growth targets will be good for China's economy if it means less reliance on debt-fuelled investment.

Source: Adapted from *The Straits Times*, 27 October 2017

**Extract 9: Why does inclusive growth matter?**

In the wake of the global financial crisis, growth has been elusive and many economies are still battling weak demand, stubborn unemployment and rising levels of inequality. In the last few years, global GDP has averaged around 3.5%.The World Bank cut its global growth projection to 2.9% in 2016 from its estimate of 3.3% in June.

But the challenge here isn't just about reviving global economic growth – it's also about doing it in a way that is more inclusive than in the recent past. In order to boost growth and counter the slowdown in countries, we need to step up efforts around the world to accelerate economic activity and to ensure that its benefits reach everybody in society.

A growing body of research also suggests that rising income inequality contributes to a range of macroeconomic and social consequences. Income inequality deprives the ability of lower-income households to stay healthy and accumulate physical and human capital. This leads to under-investment in education for such households as poor children end up in lower-quality schools and are less able to go on to college. As a result, labour productivity could be lower than it would have been in a more equitable world.

Furthermore, extreme inequality may damage trust and social cohesion and thus is also associated with conflicts, which discourage investment. Conflicts are particularly prevalent in the management of common resources where, for example, inequality makes resolving disputes more difficult. More broadly, inequality affects the economics of conflict, as it may intensify the grievances felt by certain groups or can reduce the opportunity costs of initiating and joining a violent conflict.

Source: *World Economic Forum* and *International Monetary Fund*, 18 January 2016

**Extract 10: Singapore to increase labour force productivity to counter ageing demographics**

According to Singapore’s Ministry of Manpower (MOM),labour productivity refers to real output per worker. Within the changing economic landscape, coupled with challenges posed by an ageing population, Singapore needs to correctly position its labour force moving forward. With the transformation of industries, new job scopes requiring new skills would also become available, and residents would only be able to harness these opportunities if they receive the right training. This is because a jobs-skills mismatch has been identified by the MOM as a continuing structural challenge in face of the economic restructuring.

The Singapore government has allocated a portion of its budget to launch the Professional Conversion Programs in 2016 to develop specialised skillsets needed, with the aim of increasing labour productivity in 23 fields. This year, new programs will be launched in the areas of internet audit and building information modelling, among other knowledge fields. Employees are recommended to be trained in the areas of science, the use of technology and automation to increase their employability and productivity at work. Meanwhile, it is also crucial to ensure that there are mechanisms in place for older Singaporeans to be retrained in new skills.

“Ultimately, I think it is important for our employers and also the older workers to recognise one thing. That in this day and age of rapid development globally, I think companies and workers will have to rejuvenate themselves; reinvent themselves, to be able to compete effectively, globally,” said Sam Tan, Minister of the State for Manpower.

Source: Adapted from *The Asean Post*, 29 January 2018

**Questions**

|  |  |  |
| --- | --- | --- |
| **(a)** | **(i)** | Explain the expected relationship between GDP and unemployment rate in an economy. [3] |
|  |  |  |
|  | **(ii)** | Explain one reason why the data in Table 2 may not support the above expected relationship. [2] |
|  |  |  |
| **(b)** | **(i)** | With reference to Extract 6, explain how automation is likely to change the price elasticity of demand for labour. [3] |
|  |  |  |
|  | **(ii)** | Using the marginalist principle, explain how firms decide on the number of robots to employ. [5] |
|  |  |  |
| **(c)** | With reference to Extract 7 and using AD/AS analysis, assess the consequences of the ‘unexpected investments’ on Singapore’s unemployment. [8] | |
|  |  | |
| **(d)** | With the aid of a Production Possibilities Curve diagram, explain how the ‘Professional Conversion Programs’ (Extract 10) will impact Singapore’s economic growth **both** in the short run **and** long run. [5] | |
|  |  | |
| **(e)** | Some countries prioritise sustainable growth, while others focus on inclusive growth.  Discuss the view that in pursuing economic growth, countries should prioritise sustainable growth. [9] | |
|  |  | |
| **(f)** | Discuss the extent to which inclusive growth in Singapore can be achieved through improving labour productivity. [10] | |

[Total: 45]