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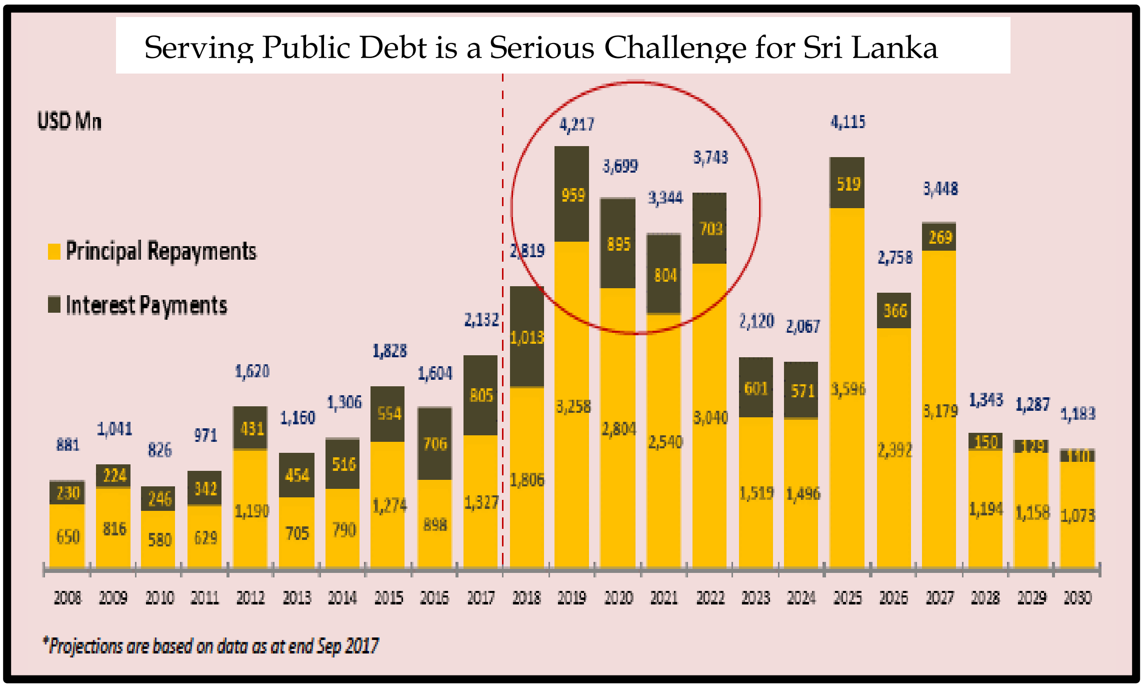
Department of Examination – Sri Lanka

G.C.E (A/L) Examination – 2019

21 - Economics

Marking Scheme



This has been prepared for the use of marking examiners. Some changes would be made according to the views presented at the Chief Examiner's meeting

Final Amendments to be included

CONTENTS

21 Economics

STRUCTURE OF QUESTION PAPERS

Paper I - 02 Hours

There are 50 multiple-choice questions and each question has five (5) optional answers. All questions are compulsory. Each correct answer is given 02 marks and the total marks will be 100.

Paper II - 03 Hours

This papers consists of two sub-sections.

Sub-section A - 05 Structured questions
Sub-section B - 05 Structured questions

Answer 05 questions only, selecting **minimum of two** questions from each sub-sections. Each question has 20 marks and total marks will be 100.

Calculation of the final mark	= Paper I	100
	= Paper II	100
Final mark	= 200 ÷ 2 = **100**	

AL/2019/21/E-I (OLD) 1068

පැරණි නිර්දේශය/பழைய பாடத்திட்டம்/Old Syllabus

OLD

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2019 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2019 ஓகஸ்ற்
General Certificate of Education (Adv. Level) Examination, August 2019

ආර්ථික විද්‍යාව I
பொருளியல் I
Economics I

21 E I

05.08.2019 / 1300 – 1500

පැය දෙකයි
இரண்டு மணித்தியாலம்
Two hours

Page No.	Question No.	Marks
01	01 - 04	
02	05 - 12	
03	13 - 19	
04	20 - 24	
05	25 - 31	
06	32 - 36	
07	37 - 43	
08	44 - 50	
Total		

Index No. : ....

For Examiner's Use Only

	Signature	Code No.
1st Examiner		
2nd Examiner		
Add. Chief		
E.M.F.		
Chief		

Instructions:

- *Answer **all** the questions **on this question paper itself**.*
- *Write your **Index Number** in the space provided above.*
- *Select the correct answers for questions **1-50** and **write its number on the dotted line given**.*

1. The central problem of economics is
   (1) to establish a democratic political framework for the provision of public goods and services.
   (2) the establishment of prices that accurately reflect the relative scarcities of goods and resources.
   (3) the scarcity of productive resources relative to human wants.
   (4) to achieve a more equitable distribution of money income in order to mitigate poverty.
   (5) to achieve sustainable development. (......)

2. Human Capital is
   (1) all capital owned by individuals, but not by corporations and government.
   (2) all capital owned by individuals and corporations, but not by government.
   (3) machinery that meets safety standards for use by humans.
   (4) the skills and knowledge endowment of workforce.
   (5) construction of infrastructure for schools and hospitals. (......)

3. Productive efficiency implies
   (1) the use of the least-cost techniques of production.
   (2) the production of the product-mix most wanted by society.
   (3) the full employment of all available resources.
   (4) production at some point inside of the production possibilities curve.
   (5) a technological improvement substituting labour with capital. (......)

4. As productive resources are scarce, it needs to give up some of one good in order to acquire more of another. This is the essence of the concept of
   (1) specialization. (2) implicit cost.
   (3) comparative advantage. (4) absolute advantage.
   (5) opportunity cost. (......)

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5. By which of the following can economic growth be depicted using a production possibilities frontier?

(1) A rightward shift of the curve
(2) A movement upward on an existing curve
(3) A movement downward on an existing curve
(4) A movement from a point outside the curve to a point on the curve
(5) A movement from a point on the curve to a point inside the curve (……)

6. The idea that consumers determine what is produced in the economy through their demands is known as

(1) a laissez-faire economy. (2) a market economy. (3) consumer sovereignty.
(4) free enterprise. (5) a mixed economy. (……)

7. Which of the following is true of the substitution effect of a decrease in the price of a normal good?

(1) It works to offset the income effect.
(2) It works to reinforce the income effect.
(3) It is less than the income effect.
(4) It causes a decrease in the quantity demanded of the good.
(5) It causes an increase in the demand for the good. (……)

8. Which of the following would shift the supply curve of a good to the right?

(1) An increase in the cost of production
(2) A decrease in the cost of production
(3) An increase in the price
(4) A decrease in the price
(5) A decrease in demand (……)

9. Which of the following indicates that two goods are substitutes?

(1) A positive income elasticity of demand
(2) A cross-price elasticity of demand is less than zero
(3) A price elasticity of demand is less than one
(4) A positive cross-price elasticity of demand
(5) A horizontal demand curve (……)

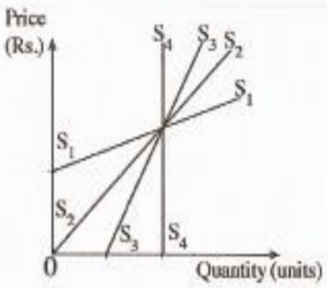
10. If the government imposes a tax on the production of air conditioners, which of the following will occur in the market for air conditioners?

(1) There will be a movement to the right along the supply curve.
(2) There will be a movement to the right along the demand curve.
(3) The supply curve will shift to the right.
(4) The supply curve will shift to the left.
(5) The demand curve will shift to the right. (……)

11. If the total revenue of a firm increases by 10% as a result of an increase in price by 20%, the demand it faces in this price range must be

(1) inelastic. (2) elastic. (3) unitary elastic.
(4) perfectly elastic. (5) perfectly inelastic. (……)

12. The diagram below shows four market supply curves. Which statement is correct about the price elasticity of supply curves?



(1) Curve S_1S_1 has decreasing elasticity as price rises.
(2) Curve S_2S_2 has increasing elasticity as price rises.
(3) Curve S_3S_3 has decreasing elasticity as price rises.
(4) Curve S_4S_4 has constant infinite elasticity.
(5) Curve S_2S_2 has elasticity greater than one. (……)

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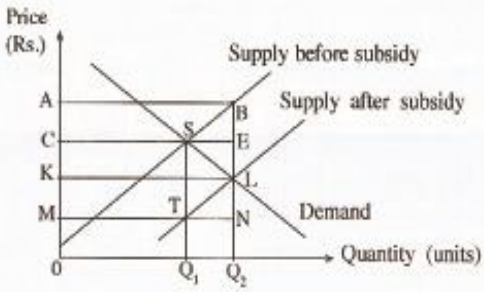
13. The diagram below shows the market for an essential consumer product before and after the introduction of a subsidy on production.



What is the total amount of money paid in subsidies?
(1) $OKLQ_2$ (2) $OCSQ_1$ (3) $OABQ_2$ (4) ABEC (5) KABL (......)

14. Assume that good X is sold in a competitive market. Which of the following is true if a unit tax is imposed on the production of good X?
(1) If the demand curve is perfectly elastic, the price does not rise by the amount of the tax.
(2) If the demand curve is perfectly inelastic, the price does not rise by the amount of the tax.
(3) The consumer's burden of the tax rises, as the demand curve is more elastic.
(4) The consumer's burden of the tax rises, as the demand curve is less elastic.
(5) Consumers surplus rises as a result of the tax. (......)

15. Diminishing marginal returns occurs when the
(1) marginal product of an input is rising.
(2) marginal product of an input is zero.
(3) marginal product of an input is falling.
(4) total product of an input is zero.
(5) total product of an input is negative. (......)

16. Which of the following is an implicit cost for the owner of a small restaurant?
(1) The wage paid to the assistant manager
(2) The cost of purchasing meat from a wholesale supplier
(3) The cost of water supplied by the Water Supply Board
(4) The value placed on the owner's skills in an alternative career
(5) The cost of property taxes paid to the local administrative authority (......)

17. Which of the following is true of the perfectly competitive firm in the short run?
(1) The firm always earns a normal profit.
(2) The firm shuts down if the price falls below average total cost.
(3) The firm always earns positive economic profit.
(4) The firm maximizes profit by producing where the price equals marginal revenue.
(5) The firm may earn positive profit or negative profit or normal profit. (......)

18. Which of the following is a characteristic of a perfectly competitive market structure?
(1) Firms produce a homogeneous product.
(2) Barriers to entry exist.
(3) Firms are price-setting profit maximizers.
(4) Always earn normal profits in the short run.
(5) The government regulates the price to eliminate dead weight loss. (......)

19. Consider a firm is operating in a perfectly competitive market. What will be the effect on the firm's total revenue if it increases its output by 5%?
(1) Total revenue will be unchanged.
(2) Total revenue will increase by 5%.
(3) Total revenue will increase by less than 5%.
(4) Total revenue will increase by more than 5%.
(5) Total revenue will become zero. (......)

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20. In the circular flow model of an economy with no government sector and no international trade, households

(1) receive income from buyers of final products.
(2) receive income from the sale of resources in the goods market.
(3) pay business firms for the use of their resources.
(4) receive income from producers for the use of their factors of production.
(5) pay income to producers for the use of their savings. (......)

21. The Table below presents nominal data on the components of Gross Domestic Product based on expenditure approach for a hypothetical economy. (All figures are in Rs. billion)

Year	C	I	G	X	M
2017	600	200	100	250	150
2018	650	300	150	300	250

Assume that the index for the GDP deflater of this economy increased from 100 in 2017 to 110 in 2018. What is the growth rate of real GDP in 2018?

(1) 5%. (2) 10%. (3) 12%. (4) 15%. (5) 16%. (......)

22. The value of intermediate goods is **not** included in the calculation of GDP

(1) because they are consumed in the current year.
(2) because of the tremendous difficulty in keeping track of all intermediate goods produced in the economy.
(3) because they are only sold in goods markets.
(4) to keep from including goods that reduce society's welfare.
(5) to avoid counting their value twice and thereby overstating the value of GDP. (......)

23. If the government increased spending by Rs. 600 billion and increased taxes by Rs. 600 billion to cover the increased spending then which of the following combinations would correctly explain the effect on the budget and GDP?

	Budget	GDP
(1)	Unchanged	Decrease
(2)	Surplus	Decrease
(3)	Unchanged	Unchanged
(4)	Surplus	Increase
(5)	Unchanged	Increase

(......)

24. The data presented in the following Table describes the relationship between Disposable Gross National Income and aggregate consumption expenditure of an economy.

Disposable Gross National Income (Rs. billion)	Aggregate Consumption Expenditure (Rs. billion)
800	700
860	745
920	790
980	835

What can be deduced about the value of marginal propensity to consume in this economy?

(1) It increases with the increase of disposable gross national income.
(2) It decreases with the increase of disposable gross national income.
(3) The value of the marginal propensity to consume is 0.87.
(4) The value of the marginal propensity to consume is 0.45.
(5) The value of the marginal propensity to consume is 0.75. (......)

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25. Assume an economy currently operating at an equilibrium level of output at Rs.5 000 billion with a marginal propensity to consume of 0.8. If the full employment equilibrium of this economy is Rs.7 000 billion, which of the following policy measures would ensure achievement of full employment?
(1) Decrease taxes by Rs.2 000 billion
(2) Increase government spending by Rs.2 000 billion
(3) Increase government spending by Rs.500 billion
(4) Decrease taxes by Rs.500 billion
(5) Decrease taxes by Rs.400 billion (......)

26. Assume that in a closed economy without a government sector, the aggregate saving function is $S = -100 + 0.2Y$ and the equilibrium level of national income is Rs.2 000 billion. What is the level of investment for this economy?
(1) Rs.100 billion (2) Rs.200 billion (3) Rs.300 billion
(4) Rs.400 billion (5) Rs.500 billion (......)

27. The Table below shows some macroeconomic data for a hypothetical Economy. (All figures are in Rs. billion).

Government Purchases (G)	Imports (M)	Taxes (T)	Investment (I)	Exports (X)	Saving (S)
30	70	40	50	80	60

Which of the following statements about this economy is correct?
(1) Economy expands because exports are greater than imports.
(2) Economy contracts because savings are greater than taxes.
(3) Economy expands because injections are greater than withdrawals.
(4) Economy contracts because withdrawals are greater than injections.
(5) Economy is in equilibrium because injections are equal to withdrawals. (......)

28. Cost-push inflation might start with
(1) a rise in money wage rate.
(2) an increase in government purchases.
(3) an increase in the quantity of money.
(4) an increase in money income.
(5) a reduction in tax rates. (......)

29. In a hypothetical economy, if the nominal Gross Domestic Product is Rs.8 trillion and the money Supply is Rs.2 trillion, the velocity of money is
(1) 0.25. (2) 2. (3) 4. (4) 6. (5) 8. (......)

30. The money multiplier is the ratio of
(1) bank deposits to bank reserves.
(2) bank deposits to high-powered money.
(3) bank deposits to excess reserves.
(4) money supply to high-powered money.
(5) the currency to bank reserves. (......)

31. The Central Bank can increase the money supply by
(1) selling their gold reserves to the commercial banks.
(2) selling their foreign currency holdings.
(3) buying government bonds in the open market.
(4) buying gold from foreign Central Banks.
(5) borrowing reserves from foreign governments. (......)

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32. Open market operations refer to
(1) buying and selling of stocks in the Colombo Stock Market.
(2) loans made by the Central Bank to commercial banks.
(3) buying and selling of government securities by the Central Bank.
(4) government purchase of foreign bonds.
(5) granting subsidies by the government to promote exports. (......)

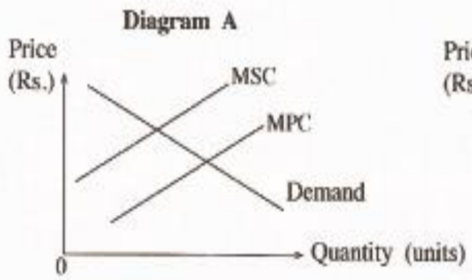
33. Assume that the statutory reserve requirement is 15% and a commercial bank receives a new deposit of Rs. 2 000. Which of the following changes will occur in the bank's balance sheet as a result of this?

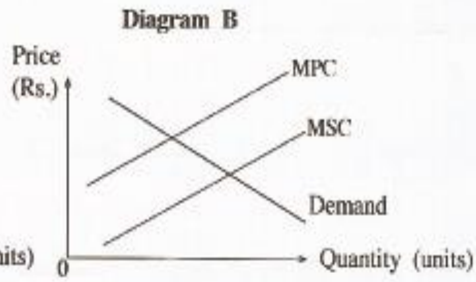
	Liabilities	Required Reserves
(1)	Increase by Rs. 2 000	Increase by Rs. 1 700
(2)	Increase by Rs. 2 000	Increase by Rs. 300
(3)	Increase by Rs. 2 000	Not change
(4)	Decrease by Rs. 2 000	Decrease by Rs. 300
(5)	Increase by Rs. 2 000	Decrease by Rs. 1 700

(......)

34. A public good is
(1) a good that the general public must pay for.
(2) non-rival in consumption.
(3) more costly than a private good.
(4) a good that generate positive externalities.
(5) a good that generates negative externalities. (......)

35. The diagrams below display two competitive markets for good 'A' and good 'B'. MSC is marginal social cost and MPC is marginal private cost.





Based on the two diagrams, it can be correctly concluded that
(1) both diagrams demonstrate the existence of externalities.
(2) both diagrams demonstrate the existence of negative externalities.
(3) both diagrams demonstrate the existence of positive externalities.
(4) diagram A demonstrates inefficiency through underproduction.
(5) diagram B demonstrates inefficiency through overproduction. (......)

36. 'Government failure' occurs when
(1) social costs in a market are greater than social benefits.
(2) the government fails to intervene in the market.
(3) externalities exist in the market.
(4) a government intervention leads to a net welfare loss compared to the free market solution.
(5) the government fails to remove production inefficiency and allocative inefficiency.
(......)

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37. When a progressive income tax rate structure is in operation, the rich pay
    (1) a lower percentage of their income in taxes than the poor.
    (2) a smaller rupee amount in taxes than the poor.
    (3) a fixed percentage of their income in taxes whatever the level of income.
    (4) a gradually increasing percentage of income in taxes as income increases.
    (5) a gradually decreasing percentage of income in taxes as income increases. (......)

38. What was the outstanding public debt of the central government of Sri Lanka as a percentage of GDP in 2017 and 2018?

	2017	2018
(1)	76.9	82.9
(2)	79.1	80.2
(3)	80.0	90.0
(4)	74.5	85.0
(5)	78.5	79.5

(......)

39. Which of the following countries entered into a free trade agreement with Sri Lanka most recently?
    (1) India (2) China (3) Bangladesh (4) Singapore (5) Pakistan (......)

40. The Table below shows data related to the commodity terms of trade index for a country.

Year	Commodity Terms of Trade Index
2014	100
2016	110
2018	134

It can be concluded from the data given in the above Table that for the period 2014 - 2018,
(1) export prices rose relatively faster than import prices.
(2) import prices rose relative to export prices.
(3) the volume of exports exceeded the volume of imports.
(4) the volume of exports rose faster than the volume of imports.
(5) the balance of trade surplus increased. (......)

41. Consider that Canada provides a financial grant to build a reservoir to generate hydropower in a developing country. This will be entered in Canada's Balance of Payments as a
    (1) debit in the capital account. (2) debit in the financial account.
    (3) debit in the service account. (4) credit in the primary income account.
    (5) credit in the secondary income account. (......)

42. What is likely to be the effect of a depreciation of a country's currency?
    (1) An increase in the rate of inflation. (2) A decrease in the profit margin of exports.
    (3) An increase in unemployment. (4) An improvement in the terms of trade.
    (5) An increase inflow of foreign capital funds. (......)

43. Assume that under a fixed exchange rate system, a country's rate of inflation increases relative to its trading partners. What are the most likely changes on imports and exports as a result of this?

	Imports	Exports
(1)	Decrease	Decrease
(2)	Decrease	Increase
(3)	Increase	Decrease
(4)	Increase	Increase
(5)	Unchanged	Unchanged

(......)

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44. The Human Development Index (HDI) summarizes a great deal of social performance into a single composite index, combining
(1) disparity reduction rate, human resource development rate and the literacy rate.
(2) longevity, education and living standard.
(3) minimum schooling, adult literacy and tertiary educational attainment.
(4) human resource training, development and innovations.
(5) infant mortality, adult literacy and per capita income. (......)

45. International poverty line for lower middle income countries is
(1) US dollar 1.25. (2) US dollar 1.90. (3) US dollar 3.20.
(4) US dollar 5.50. (5) US dollar 21.70. (......)

46. According to the Poverty Headcount Index in 2016, the districts with lowest and highest poverty levels in Sri Lanka were respectively,
(1) Gampaha and Mullaitivu. (2) Colombo and Kilinochchi.
(3) Gampaha and Batticaloa. (4) Colombo and Trincomalee.
(5) Hambantota and Vavuniya. (......)

47. A redistribution of income from the richest 10% of society towards the poorest 10% will
(1) increase the Gini coefficient and move the Lorenz curve closer to the 45 degree line.
(2) decrease the Gini coefficient and move the Lorenz curve closer to the 45 degree line.
(3) decrease the Gini coefficient and move the Lorenz curve further from the 45 degree line.
(4) increase the Gini coefficient and move the Lorenz curve further from the 45 degree line.
(5) increase the Gini coefficient and the Lorenz curve lies on the 45 degree line. (......)

48. The Table below shows labour market data for a hypothetical economy.

Year	Number of persons employed (million)	Labour force (million)	Household population aged 15 and above (million)
2017	27	30	60
2018	32	36	80

Based on this data, which one of the following statements is correct?
(1) The labour force participation rate in 2018 was lower than that in 2017.
(2) The rate of unemployment in 2018 was lower than that in 2017.
(3) The labour force participation rate in 2018 was higher than that in 2017.
(4) The labour force participation rate in 2018 was exactly the same as that in 2017.
(5) The rate of unemployment in 2018 was exactly the same as that in 2017. (......)

49. The total dependency ratio in Sri Lanka is defined as the
(1) percentage of population over 65 years of age.
(2) ratio of number of children to adults in the population.
(3) percentage of population below 10 years and above 60 years of age.
(4) percentage of population below 15 years and above 64 years of age.
(5) ratio of non-working age population to working age population. (......)

50. According to the Household Income and Expenditure Survey in 2016, the income shares of richest 20% and the poorest 20% of households in Sri Lanka are respectively
(1) 50.8% and 4.8%. (2) 45.1% and 4.5%. (3) 54.1% and 6.1%.
(4) 62.3% and 3.2%. (5) 53.3% and 5.6%.
(......)

* * *

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இலங்கைப் பரீட்சைத் திணைக்களம்

අ.පො.ස. (උ.පෙළ) විභාගය/ க.பொ.த. (உயர் தர)ப் பரீட்சை - 2019

පැරණි නිර්දේශය/ பழைய பாடத்திட்டம்

විෂය අංකය / பாட இலக்கம்: 21

විෂයය / பாடம்: Economics

ලකුණු දීමේ පටිපාටිය/புள்ளி வழங்கும் திட்டம்

I පත්‍රය/பத்திரம் I

ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.	ප්‍රශ්න අංකය வினா இல.	පිළිතුරු අංකය விடை இல.
01.	3	11.	1	21.	1	31.	3	41.	2
02.	4	12.	1	22.	5	32.	3	42.	1
03.	1	13.	5	23.	5	33.	2	43.	3
04.	5	14.	4	24.	5	34.	2	44.	2
05.	1	15.	3	25.	4	35.	1	45.	3
06.	3	16.	4	26.	3	36.	4	46.	2
07.	2	17.	5	27.	4	37.	4	47.	2
08.	2	18.	1	28.	1	38.	1	48.	1
09.	4	19.	2	29.	3	39.	4	49.	5
10.	4	20.	4	30.	4	40.	1	50.	1

✪ විශේෂ උපදෙස්/ விசேட அறிவுறுத்தல் :

එක් පිළිතුරකට/ ஒரு சரியான விடைக்கு 02 ලකුණු බැගින්/புள்ளி வீதம்

මුළු ලකුණු/மொத்தப் புள்ளிகள் 2 × 50 = 100

පැරණි නිර්දේශය / பழைய பாடத்திட்டம் / Old Syllabus

OLD

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2019 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2019 ஓகஸ்ற்
General Certificate of Education (Adv. Level) Examination, August 2019

ආර්ථික විද්‍යාව II
பொருளியல் II
Economics II

21 E II

06.08.2019 / 1300 – 1610

පැය තුනයි
மூன்று மணித்தியாலம்
Three hours

අමතර කියවීම් කාලය - මිනිත්තු 10 යි
மேலதிக வாசிப்பு நேரம் - 10 நிமிடங்கள்
Additional Reading Time - 10 minutes

Use **additional reading time** to go through the question paper, select the questions and decide on the questions that you give priority in answering.

Instructions:

* *Answer **five** questions only, selecting minimum of **two** questions from Sub section '**A**' and **two** questions from Sub section '**B**'.*
* *Graph papers will be provided.*

Sub section 'A'

*(Select minimum of **two** questions from this section.)*

1. (i) To which category of productive resources does each of the following belong?
   (a) An unemployed worker
   (b) Lakvijaya coal power plant
   (c) A tea estate in Nuwara Eliya
   (d) Sinharaja forest (04 *marks*)

   (ii) What are the assumptions on which the production possibilities curve is based? (04 *marks*)

   (iii) Explain, how increasing opportunity costs are reflected in the production possibilities curve. How would the curve appear if opportunity costs were constant? Explain your answers with diagrams. (04 *marks*)

   (iv) What are the criteria used in the classification of economic systems? (04 *marks*)

   (v) Explain briefly, the conditions required to achieve economic efficiency of the allocation of resources? (04 *marks*)

(i) (a) Labour
(b) Capital
(c) Capital
(d) Land **(1 mark for a correct answer; total 04 marks)**

(ii) Production possibility frontier is based on the following assumptions;

1. The amount of resources in an economy at a given period of time is fixed. This means the society's resources stock does not change both qualitatively and quantitatively in a given period of time.

2. All the available resources are utilised to attain the full employment and full production in an economy.
3. The level of technology is assumed to be constant during a given period of time.
4. Resources are being used to produce only two goods.

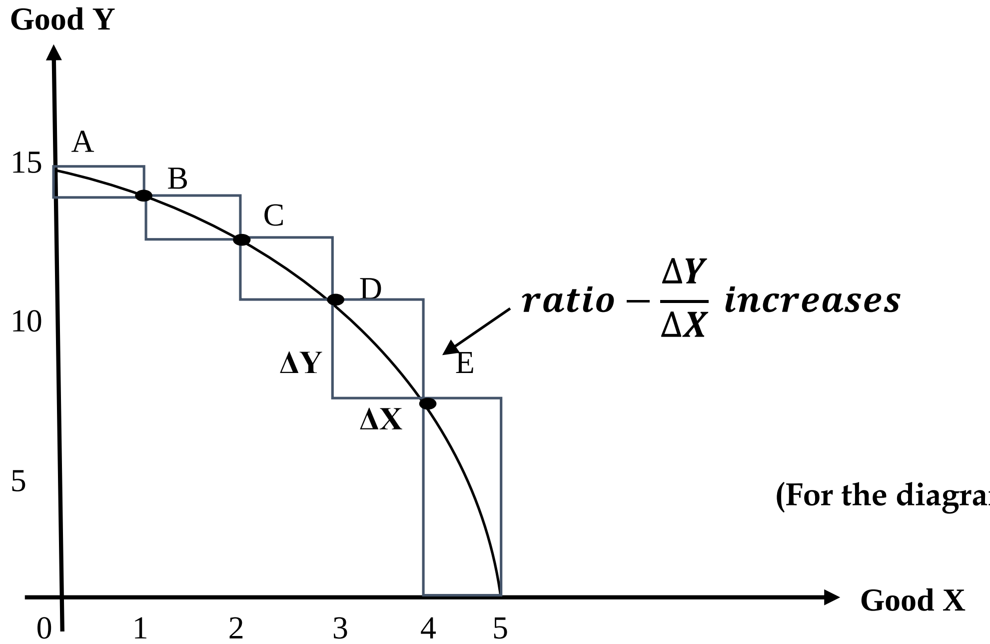
(1 mark each for any assumption; total 04 marks)

(iii)

When there is an increasing opportunity cost, the PPC becomes concave or bowed out the origin.

When moving from top to bottom **on** the PPC, a production shown in the horizontal axis is gradually increased in equal units, the slope of the PPC gradually increases. (In other words, marginal opportunity cost increases).

(Shape of the PPC and explanation of increasing opportunity cost, 01 mark)

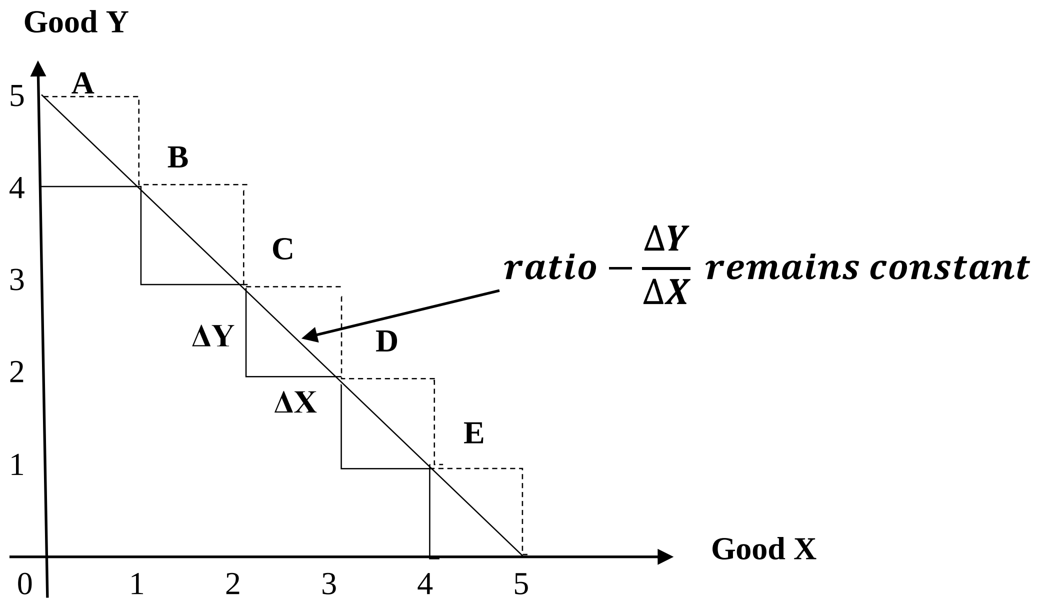


(For the diagram, 01 mark)

When there is constant opportunity cost, the PPC becomes linear.

When moving from top to bottom **on** the PPC, the production of a good is gradually increased in equal units, the opportunity cost of the good that is sacrificed remains the same. (In other words, the slope of the PPC is constant).

(Shape of the PPC and explanation of increasing opportunity cost, 01 mark)



(For the diagram, 01 mark)

(iv)

1. Making decisions on the allocation of scarce resources and the mechanism that co-ordinates the above decisions.
2. Ownership of production resources and the nature of property rights.
3. Incentive system that influence the decision making units of the economy.
4. Income re-distribution and nature of social protection networks.
5. Political and religious ideologies.

(1 mark each for any criteria; total 04 marks)

(v)

Economic efficiency is defined as the effective utilisation of limited resources to satisfy the wants of citizens in the society. **(01 mark)**

Two conditions need to be satisfied together to achieve economic efficiency. They are,

- Productive efficiency
- Allocative efficiency **(01 mark)**

Productive efficiency is achieved under two other conditions including full employment and full production.

Allocative efficiency is the situation when limited resources are being used as effectively as possible to satisfy people's needs and desires. Society mostly desires goods and services provided under allocative efficiency. **(01 mark)**

Allocative efficiency is achieved when price is equal to marginal cost and marginal benefits, **P = MC= MB**. **(01 mark)**

2. Suppose the demand and supply curves for a product sold in a competitive market are represented by the following equations.

Demand equation: $Q_D = 100 - 2P$ Supply equation: $Q_S = -30 + 3P$

(i) Find the equilibrium price and the quantity for the product. (04 *marks*)

(ii) Calculate the price elasticity of demand at the market equilibrium. (04 *marks*)

(iii) Suppose now the government has decided to grant a subsidy of Rs.5 per unit for the producers of this product. Calculate the market equilibrium price and the quantity of this product after the subsidy granted. (04 *marks*)

(iv) Compare the economic surplus before and after the subsidy. (04 *marks*)

(v) What can you conclude on the allocative efficiency of resource allocation in this market after the introduction of the subsidy? (04 *marks*)

(i)

QD = QS
100-2P = -30+3P
5P = 130
P = 130/5
P = 26
QD = 100-2P
= 100 – 2×26
= 48

QS = -30 +(3×26)
= 48

Equilibrium price is 26 **(02 marks)**
Equilibrium quantity is 48 **(02 marks)**

(ii)

Elasticity of demand = ΔQd/ΔP × P/Q **(02 marks for the formula)**
= -2 × 26/48

= - 1.08 **(02 marks)**

(In the absence of minus sign only 01 mark; with sign and correct answer 02 marks)

(iii)

$QD = QS$

$100 - 2P_b = -30+3P_s$

$100 - 2P_b = -30+3(\mathbf{P_b+S})$

(For the relationship between P_s and P_b after the subsidy; 01 mark)

$100 - 2P_b = -30+3(\mathbf{P_b+5})$

(For the substitution of figures to the equation; 01 mark)

$100 - 2P_b = -30+3P_b+15$

$5P_b = 115$

$P_b = 115/ 5$

$\underline{\underline{P_b = 23}}$

$QD = 100 - (2\times23)$ $QS = -30+(3\times28)$

$=100 - 46$ $\underline{\underline{= 54}}$

$\underline{\underline{= 54}}$

Equilibrium price after subsidy is 23 **(01 mark)**

Equilibrium quantity after subsidy is 54 **(01 mark)**

(iv)

Maximum demand price before subsidy,

$QD = 100 - 2P$

$0 = 100 - 2P$

$2P = 100$

$P = 100/2$

$\underline{\underline{P = 50}}$

Consumer Surplus $= [(50 - 26) \times 48] / 2$

$= 576$

Minimum supply price before subsidy

$QS = -30 + 3P$

$0 = -30 + 3P$

$-3P = -30$

$P = -30 / -3$

$\underline{\underline{P = 10}}$

Producer Surplus $= [(26 - 10) \times 48] / 2$

$\underline{\underline{= 384}}$

Economic Surplus before Subsidy $= 576 + 384$

$\underline{\underline{= 960}}$

An alternative method

$=[(50 - 10) \times 48] / 2$

$= 960$

Consumer Surplus after Subsidy = [(50 –23) × 54] / 2
= 729

Producer Surplus after Subsidy = [(28 –10) × 54] / 2
= 486

Government expenditure due to subsidy = Subsidy × New equilibrium quantity
= 5 × 54
= 270 **(01 mark)**

Economic Surplus after Subsidy = 729 + 486 – 270
= 945

Economic Surplus after Subsidy	=	945	**(01 mark)**
Economic Surplus before Subsidy	=	960	**(01 mark)**
Decrease in economic efficiency due to subsidy	=	- 15	**(01 mark)**

(Decrease in economic efficiency or comparison; 01 mark)

(v) After the introduction of a subsidy in this market, marginal cost of the production exceeds the marginal benefit. **MC > MB**.

Marginal cost of the production in this market is higher than the Price of the good.

MC > P. **(02 marks)**

Since MC > P in this market, there is an excess production (over production or too much production, or excess investment) due to the subsidy. Market is in allocative inefficiency due to the subsidy and P ≠ MC ≠ MB. **(02 marks)**

3. (i) Explain how diminishing marginal returns and decreasing returns to scale affect a firm's production cost. (04 *marks*)

(ii) What effect would each of the following have on a firm's short-run marginal cost curve and its total fixed cost curve?

(a) An increase in the wage rate

(b) A decrease in property taxes

(c) A rise in the purchase price of new capital equipment

(d) A rise in energy prices (04 *marks*)

(iii) What factors are considered in determining the market structure of a particular industry? (04 *marks*)

(iv) What type of demand curve does a perfectly competitive firm face? Explain reasons. (04 *marks*)

(v) A perfectly competitive firm could face each of the following situations in the short run. In each case, indicate whether the firm should produce in the short run or shut down in the short run, or whether additional information is needed to determine what it should do in the short run.

(a) Total cost exceeds total revenue at all output levels.

(b) Total variable cost exceeds total revenue at all output levels.

(c) Total revenue exceeds total fixed cost at all output levels.

(d) Price exceeds average total cost at all output levels. (04 *marks*)

(i) In the short run production process, when increasing quantities of variable inputs are used, in combination with a fixed factor, the marginal product of the variable input will eventually decrease. This is described as diminishing marginal returns in production. This is due to the law of diminishing marginal returns. **(01 mark)**

When diminishing marginal returns sets in, the firm's short run marginal cost starts to increase. Thus there is an inverse relationship between diminishing marginal returns and the marginal cost of the firm in the short run. **(01 mark)**

In the long run production process, when all factor inputs are changed by some percentage, the output will increase at a rate less than the rate of increase in inputs. This phenomenon is described as decreasing returns to scale in the production. This is due to diseconomies of scale in the long run production process. **(01 mark)**

When the long run production process exhibits a decreasing returns to scale, the long run average total cost will increase. **(01 mark)**

(ii)

	Marginal Cost **Curve**	Total Fixed Cost **Curve**
(a)	Shifts up.	Does not change.
(b)	Does not change.	Shifts down.
(c)	Does not change.	Shifts up.
(d0	Shifts up.	Does not change.

(01 mark each and total 04 marks)

When effects on curves are not mentioned, maximum 02 marks could be offered; thus, an answer only focuses on the marginal cost and the total fixed cost; 02 marks only.

(iii)

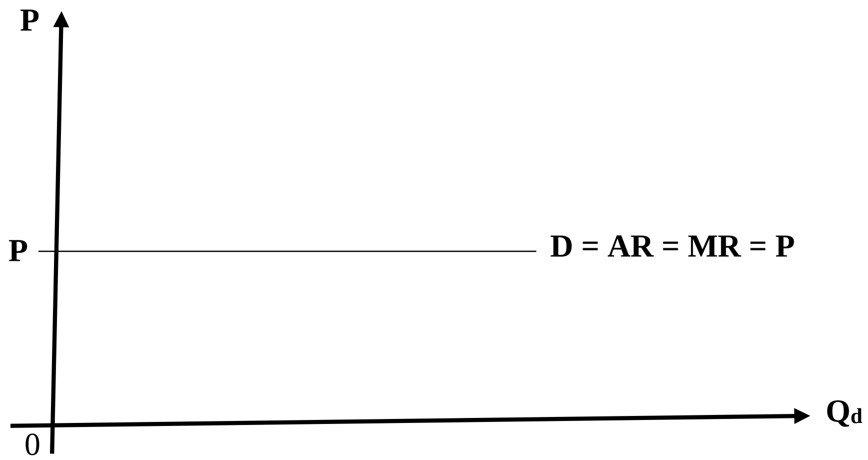
1. The number of firms in the market.
2. The nature of the product.
3. This clarifies whether goods sold in the markets are completely identical (homogenous) goods or differentiated goods.
4. The ease and difficulties for new firms to enter into a market and existing firms to exist in the market.
5. The nature of the competition between firms in the market.

(1 mark each for any factor; total 04 marks)

(iv)

A firm in a perfectly competitive market faces a perfectly elastic demand curve or the demand curve is parallel to the quantity (horizontal) axis.

Alternative answer, the diagram



(Either the statement or the diagram - 01 mark)

There are **large number of firms** who sell **homogenous products** in a perfectly competitive market. Thus, there is no possibility for a single firm to influence the supply and demand conditions in the market as they are too small in comparison to the entire market. Buyers in a perfectly competitive market also have **perfect knowledge** (information) about the market and firms cannot charge different prices. A firm can sell whatever the quantity it wishes at the prevailing market price and inactively accept the market price. Therefore, a firm operating in a perfectly competitive market is called a **price taker** rather than a price influencer or price maker. An individual firm has no control over the market price and the firm's demand curve is parallel to the quantity axis.

(An answer explaining why the firm's demand curve is perfectly elastic with above underlying properties of perfect competition caries 03 marks)

(v) (a) Additional information is needed.
(b) Firm should shut down its operation.
(c) Additional information is needed.
(d) Firms should produce in the short run.

(01 mark each; total 04 marks)

4. (i) Explain, how it is possible to measure Gross Domestic Product by using either the expenditure approach or the income approach, when neither of these approaches actually measures production. (04 *marks*)

(ii) Why are changes in inventories/stocks included as a part of investment spending? (04 *marks*)

(iii) What are the main components of expenditure considered in measuring Gross Domestic Product using expenditure approach? (04 *marks*)

(iv) Define each of the following terms.

(a) Gross National Income

(b) Gross National Disposable Income

(c) Personal Income

(d) Disposable Personal Income (04 *marks*)

(v) "National income statistics are a powerful tool of economic understanding and analysis." Explain. (04 *marks*)

(i) In general, the calculation of GDP is based on the production approach. According to the production approach, GDP equals the total value added generated by all producers. Alternatively, GDP is the value of all newly produced final goods and services produced in an economy within a given time period. (Or GDP is the total market value of all final goods and services produced in the economy in a given year).

GDP = Gross Value Added + taxes – subsidies **(01 mark)**

The production approach generates an income flow to the owners of factors of production in an economy which includes the wages paid to labour, the rent earned by land, the return on capital in the form of interest, corporate profits and net indirect taxes. Alternatively, GDP corresponds to the sum of compensation of employees, taxes on production and imports, consumption of fixed capital and the operating surplus. **(01 mark)**

Taking the perspective of the final uses for a country's output, under expenditure approach, GDP can be derived as the consumption expenditure and government expenditure, capital formation and net exports. GDP can be obtained under this approach using the following formula: GDP = C + G + I + NX, or (consumption + government expenditure + investment + net exports).

GDP = final consumption + gross capital formation + exports – imports

(01 mark)

The three approaches of measuring GDP provide the same answer because every output or entry in one approach is connected with the other two approaches. The income is generated through the production and expenditure is generated through that income. Thus, it is possible to measure GDP alternatively through income and expenditure approaches although these approaches do not directly calculate the GDP. However, there is no difference in the value of the GDP under any approach and they are identical. **(01 mark)**

(ii)

Inventories/stocks consists of (a) stocks of materials that firms hold for use in further production, (b) stocks of semi-finished goods in the process of production and (c) stocks of finished goods ready for sale but not yet sold.
Changes in inventories/stocks refer to the change in the market value of these items at the end of the year and the beginning of the year.

(02 marks)

Changes in inventory can be planned or unplanned. Inventories of output allow firms to meet orders in spite of temporary fluctuations in the rate of output or sale.

If the stocks held at the end of the year exceed those held at the beginning of the year, there has been a stock accumulation or positive investment in stocks and it is counted as current investment because it represents goods produced (even if only half-finished) but not used for current consumption.

GDP is designed to measure total current output. Therefore, an effort must be made to include any products which are produced but not sold this year to the GDP. If GDP is to be an accurate measure of total production, it must include the market value of any additions to inventories accrued during a given year. This is why the change in inventories, as a component in investment spending, is included in the expenditure approach to GDP. **(02 marks)**

(iii)

1. Private consumption expenditure – C
2. Government expenditure – G
3. Gross domestic capital formation – I
4. Net exports - NX

Y= C + G + I + (X-M) X-M or NX **(01 mark each for a component; total 04 marks)**

(iv)

(a) Gross National Income

- GNI means total factor income gained by the residence of the economy by contributing to the production process during a year.
- GNI = GDP + compensation of employees and property income from the rest of the world – compensation of employees and property income to the rest of the world

(Definition or any correct method of calculation; = 01mark)

(b) Gross National Disposable Income

- Gross National Disposable Income is the income available for consumption and saving for the nation.
- Gross national disposable income = final consumption expenditure + gross saving
- Gross national disposable income = GNI + current transfers from the rest of the world – Current transfers to the rest of the world

(Definition or any correct method of calculation; 01mark)

(c) Personal income

- National income adjusted for income that is received but not earned and income that is earned but not received in the current year.
- Personal Income = National income - Social Security Contributions/taxes - Corporate Income tax - Retained Earnings + Government Transfer Payments

(Definition or any correct method of calculation; 01mark)

(d) Disposable personal income

- Disposable personal income is the income available for consumption and savings.
- Disposable personal income = Personal income – Personal taxes

(Definition or any correct method of calculation; = 01mark)

(v) National accounting statistics brings the following benefits to the economy.

1. Measures the economic growth
2. Enables international comparison
3. Identifies the trends in aggregate price level
4. Analyses economic structure
5. Identifies nature of changes in the functional distribution of income
6. Identifies functional relationships in macro economy
7. Helps to formulate economic and social policies and planning
8. Predicts macroeconomic variables.

Due to the above benefits, national accounting statistics is considered as a powerful tool of understanding the overall economy and its performance.

(01 mark each for any benefit; total 04 marks)

5. (i) What is meant by marginal propensity to consume (MPC)? Why is it less than one? (04 *marks*)

(ii) Why is the value of the multiplier positively related to the marginal propensity to consume? (04 *marks*)

(iii) Aggregate consumption expenditure of a hypothetical economy is represented by the following equation.

$$C = 50 + 0.75\,Y_D$$

Further assume that investment expenditure at every level of income is Rs. 700 billion, net exports are zero. The government budget is balanced with government purchases and taxes equal to Rs. 500 billion each.

(a) Calculate the equilibrium level of GDP. (02 *marks*)

(b) If the potential GDP is Rs. 5000 billion, is there a deflationary or inflationary gap in the economy? If so, how much? (02 *marks*)

(iv) What is the multiplier effect? Use a 45° line diagram to illustrate the multiplier effect of a decrease in government purchases. (04 *marks*)

(v) Why does real GDP change by a larger amount from changes in government purchases than from tax changes? (04 *marks*)

(i) MPC is stated as the ratio of the change in consumer consumption expenditure (ΔC) to the change in income (ΔY) (*or change in disposable income ΔY_D*).

Marginal Propensity to Consume (MPC) = $\Delta C / \Delta Y$ or $\Delta C / \Delta Y_D$

(Correct definition – 02 marks)

Although an increase in income induces an increase in the consumption, the consumption does not increase by the same amount as the increase in income. According to Keynes, MPC is always a positive value, it is greater than zero but less than one. MPC lies between zero and one, $0 < mpc > 1$.

(Correct explanation – 02 marks)

(ii)

Multiplier refers to a situation at which a change in autonomous expenditure will cause a change in national income that is greater than the initial change in autonomous expenditure.

Multiplier is the reciprocal of marginal propensity to save. Marginal propensity to save can be obtained as 1- mpc. Thus the multiplier becomes;

$K = 1/1- mpc$ or $K = 1/mps$

(Explanation of multiplier with mpc and mps – 02 marks)

If there is an increase in the MPC on domestically produced goods and services, it will eventually lower the MPS and increase the value of the Multiplier and vice versa. That is why the value of the multiplier is positively related to the MPC. The greater the MPC, lower the MPS and larger the multiplier.

(Establishing or describing a positive relationship – 02 marks)

(iii) (a)

$Y = E$
$Y = C + I + G + X – M$
$Y = 50 + 0.75Y_D+700+500$
$Y = 50 + 0.75(Y – 500) + 700 + 500$ **(01 mark for the equation)**
$Y = 1250 + 0.75Y – 375$
$Y = 875 + 0.75 Y$
$Y – 0.75Y = 875$
$0.25Y = 875$
$Y = 875 / 0.25$
$\underline{\underline{Y = 3500}}$ **(01 mark)**

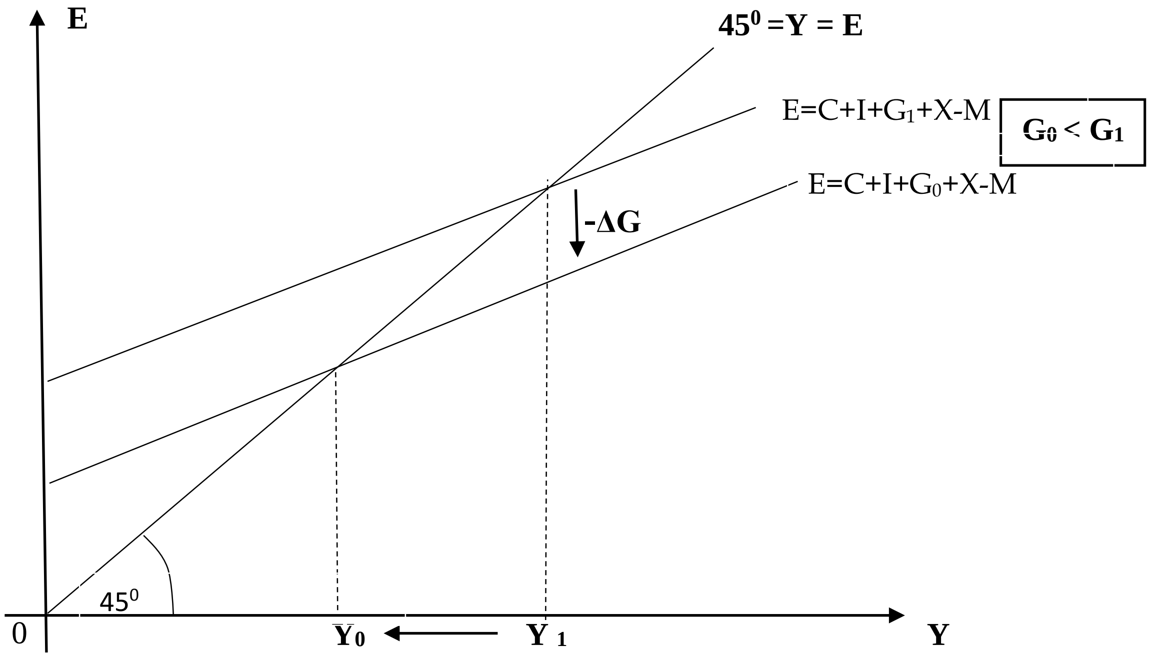
(b)

There is a deflationary gap in the economy. **(01 mark)**

Potential GDP	= Rs. 5000 billion
Equilibrium or actual GDP	= Rs. 3500 billion
Deflationary gap	= Rs. 1500 billion

(Calculation of deflationary gap; 01 mark)

(iv) An impact which is several times larger than the initial increase of autonomous expenditure on the level of national income or output is called the Multiplier effect. **(02 marks)**



(Correct 45^0 line diagram - 02 marks)

(v)

Change in government purchases has a greater multiplier effect on real GDP because it changes aggregate demand directly by the same amount of the initial change in government purchase. **(02 marks)**

Changes in tax do not change the aggregate demand by the same amount of the initial change in taxes because changes in taxes do not directly affect the aggregate demand. The changes in taxes initially have an impact on disposable income and thereby on consumption and aggregate demand.

Thus, the real GDP change by larger amount due to changes in government purchases than the changes in tax. **(02 marks)**

Alternative answer:

Government spending multiplier = K_G = 1/1-MPC

Tax Multiplier = K_T = -MPC/1-MPC

(For a multiplier 02 marks, explaining with two multipliers = total 04 marks)

Sub section 'B'

(Select minimum of two questions from this section.)

6. (i) State the equation of exchange and identify each variable. *(04 marks)*
(ii) "Inflation is triggered by excess demand but sustained by rising costs". Explain this statement using diagrams. *(04 marks)*
(iii) What are the criteria that money should fulfil to serve as an effective medium of exchange? *(04 marks)*
(iv) Name **four** main institutions comprising Sri Lanka's financial system. *(04 marks)*
(v) Identify the components of monetary aggregates M_{2b} and M_4. *(04 marks)*

(i)

MV = PT **(Equation of exchange; 02 marks)**

Where,

M= Money Supply or Quantity of Money
V= Velocity of the circulation of Money
P = Price Level
T= Number of transactions

(Identifying all variables = 02 marks, if not 0 mark)

Alternative answer:

MV = PY **(Equation of exchange; 02 marks)**

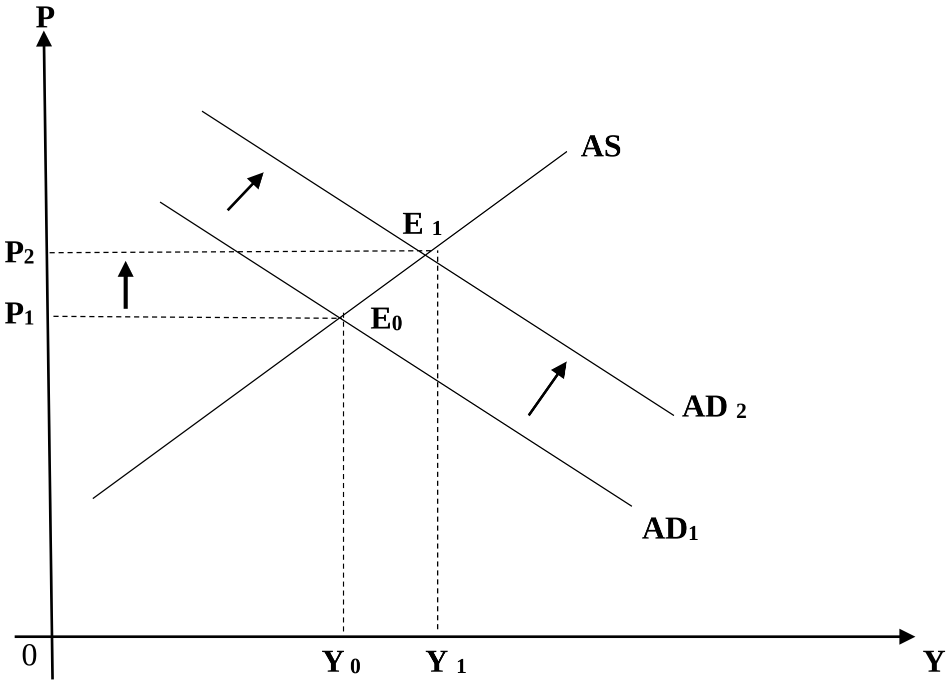
Where,

M= Money Supply or Quantity of Money
V= Velocity of the circulation of Money
P = Price Level
Y= Final Output or Real GDP or
PY = Nominal GDP

(Identifying all variables = 02 marks, if not 0 mark)

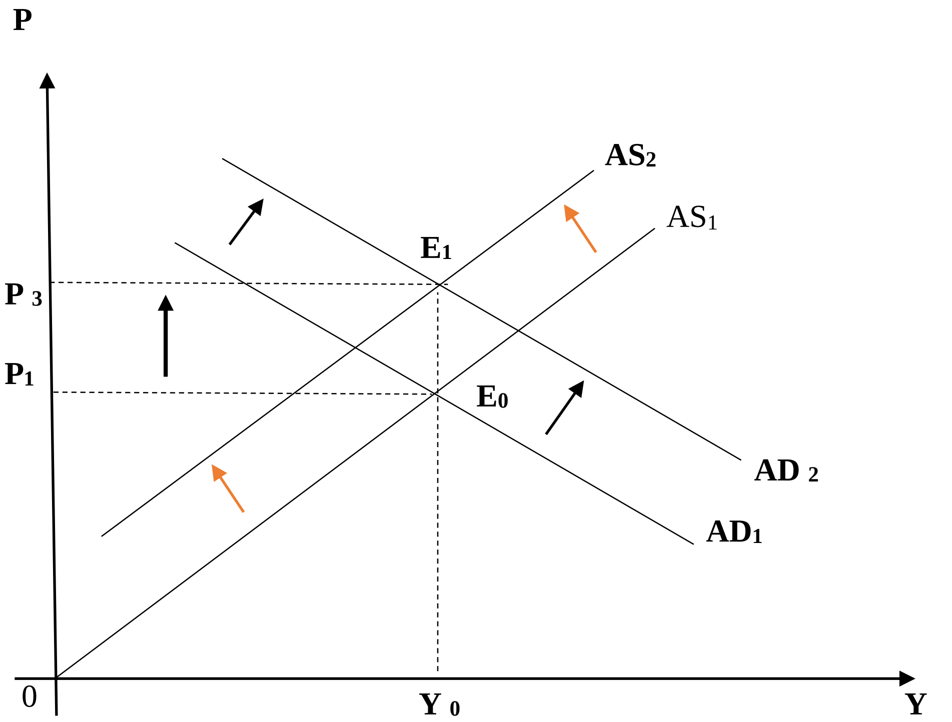
(ii) A rise in the general price level is called an inflation. According to the AD/AS model, increase in aggregate demand creates an excess demand in the economy and it leads to a rise in the prices. **(01 mark)**

Increase in aggregate demand from AD_1 to AD_2 leads to a rise in the general price level from P_1 to P_2. When there is an excess demand, producers can raise their prices and achieve bigger profit margins.



(01 mark)

When the aggregate supply of goods and services decreases because of an increase in production costs, it results in cost-push inflation.



(01 mark)

Decrease in AS_1 to AS_2 leads to a further rise in the general price level from P_1 to P_3 due to rising costs. Inflation is sustained by rising costs and this is referred to as cost-push inflation. **(01 mark)**

(iii)

1. Must be generally accepted as a medium of exchange.
2. Durability.
3. Homogeneity.
4. Divisibility; can be broken down into smaller denominations.
5. Portability; easy to carry around.
6. Hard to counterfeit; could not easily be faked or copied.
7. Valuable – generally holds value over time

(Any four criteria = 04 marks)

(iv)

1. Central Bank
2. Licensed Commercial Banks (LCBs)
3. Licensed Specialised Banks (LSBs)
4. Licensed Finance Companies (LFCs)
5. Employees' Provident Fund
6. Insurance Companies
7. Specialised Leasing Companies

(Any four main institutions; = 04 marks)

(v) Consolidated Broad Money Supply

$M_{2b} = M_2 + 50\%$ of $TSD_{NRFC} + RD_{FCBU}$

<u>Or</u> M_2 = Narrow Money Supply

($M_2 = M_1 + TSDp$, and M_1 = Currency held by the Public -Cp + Demand Deposits held by the Public with Commercial Banks- DDp)

50% of TSD_{NRFC} = Time and Savings Deposit held by the public at Non -Resident foreign currency accounts

RD_{FCBU} = Residents deposits at foreign currency Banking unit

(02 marks)

<u>Alternative answer for M_{2b}</u>

M_{2b} = M_2 + ***Adjusted Foreign Currency Deposits***

$M_2 = M_1$ + Time and Savings Deposits held by the Public with Commercial Banks (M1 = CP + DDp)

Adjusted Foreign Currency Deposits *includes deposits of the Resident Category of Offshore Banking Units (OBUs =FCBUs) and a part of foreign currency deposits with Domestic Banking Units (DBUs).* ***<u>(02 marks)</u>***

Financial Survey- M_4

$$M_4 = M_1 + \text{near money}$$

Near Money = DBU + FCBU + LSB + **RFC**

DBU = Domestic Banking Units

FCBU = Foreign Currency Banking Unit

LSB = Licensed Specialized Banks

RFC = Registered Finance Companies or **LFCs =** Licensed Finance Companies

(02 marks)

7. (i) What divergences arise between equilibrium output and socially optimal output when negative externalities and positive externalities are present? Explain your answer with diagrams. (04 *marks*)

(ii) Using examples, explain the characteristics of quasi-public goods and merit goods. (04 *marks*)

(iii) Name the main components of recurrent expenditure of the government of Sri Lanka. (04 *marks*)

(iv) What is meant by 'excess burden of taxation'? Using a diagram, explain the excess burden of a production tax on a commodity which has an inelastic demand with respect to price. (04 *marks*)

(v) Name the widely used sources and instruments in financing the budget deficit in Sri Lanka during the last three years. (04 *marks*)

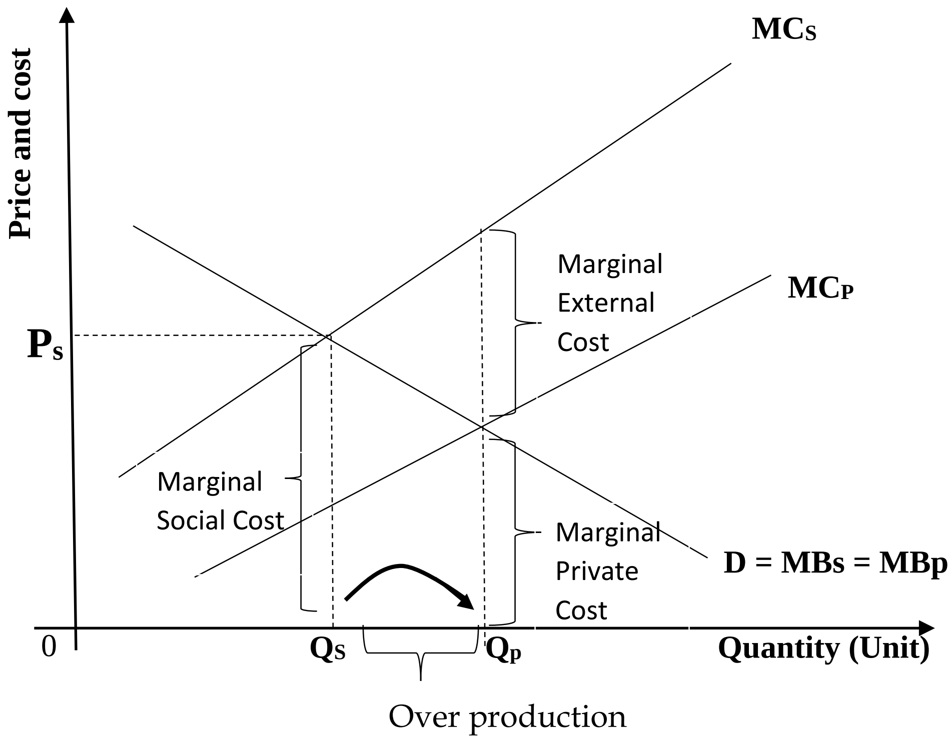
(i)

Externalities, which may be negative and positive, result in a divergence between social marginal costs (SMC) and private marginal costs (PMC), and social marginal benefits (PMB) and private marginal benefits (SMB). This results in either too much or too little production or consumption in the market. Society's resources are optimally allocated when social marginal cost equals social marginal benefit.

(01 mark)

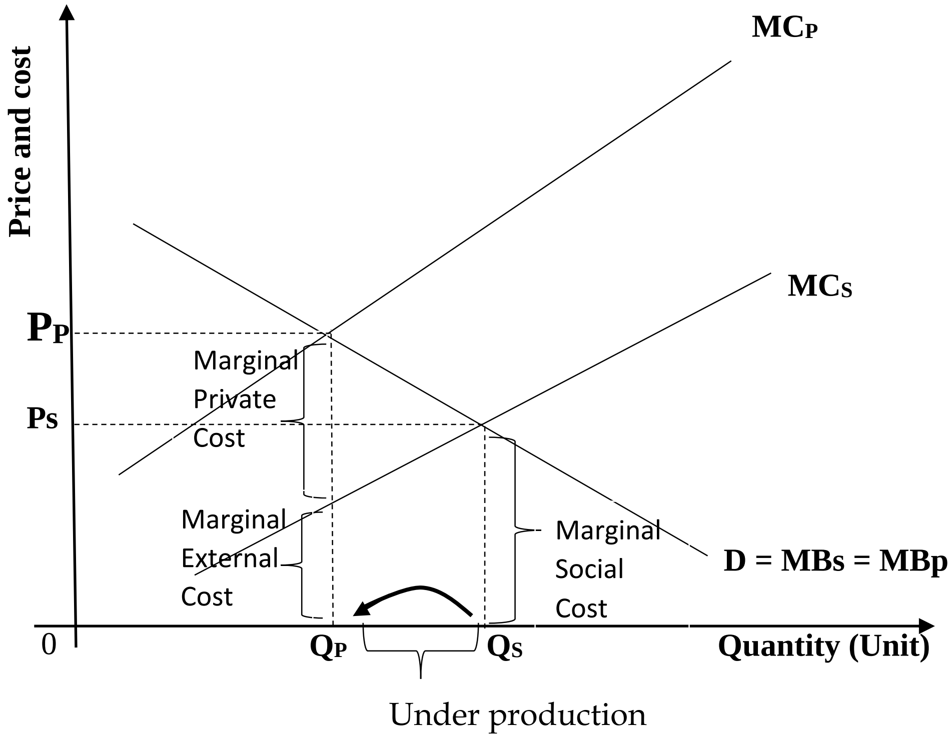
When **a negative externality** exists in production, marginal social cost exceeds the marginal private cost. Then the free market equilibrium output will exceed the socially optimum level of output. ***(01 mark)***

The following diagram presents the negative externality in production.



According to the above figure, market equilibrium output of Qp exceeds the socially optimum level of output of Qs and there is too much production (over production) in the presence of a negative production externality. **(01 mark for the correct diagram)**

When **a positive externality** exists in production, marginal private cost exceeds the marginal social cost. Then the socially optimum level of output will exceed the free market equilibrium output level. The following diagram presents the positive externality in production.

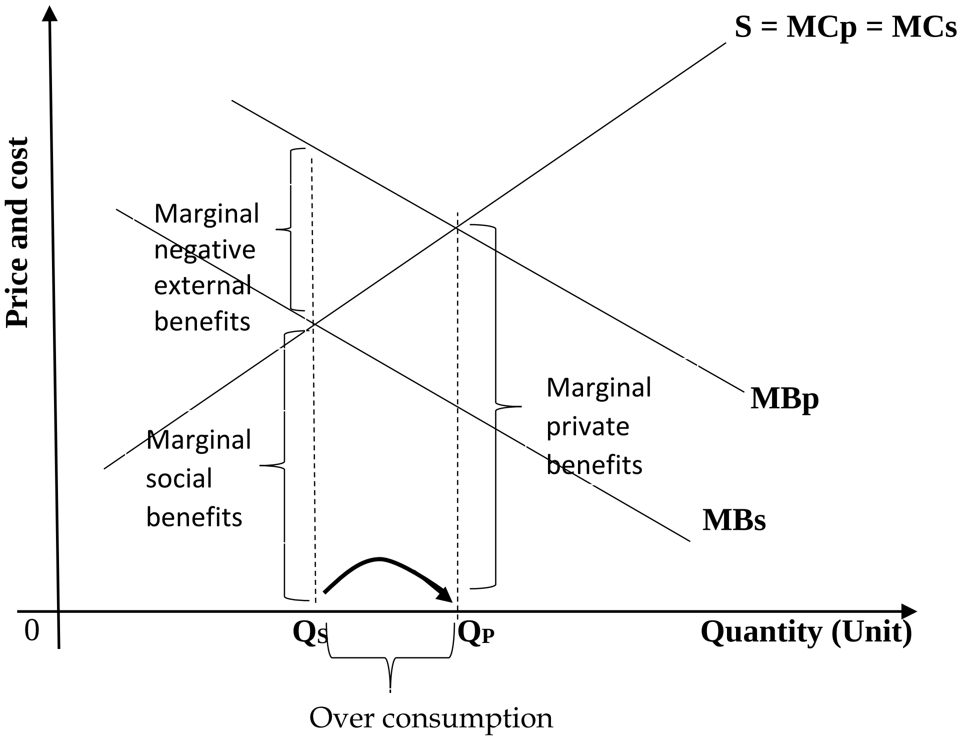


According to the above figure, socially optimum level of output of Qs exceeds the market equilibrium output of Qp and there is too little production (under production) in the presence of a positive production externality.

(01 mark for the correct diagram)

When a **negative externality exists in consumption**, marginal private benefit exceeds the marginal social benefit, and there is too much of consumption (over consumption) in the presence of a negative consumption externality. **(01 mark)**

The following diagram presents the negative externality in consumption.

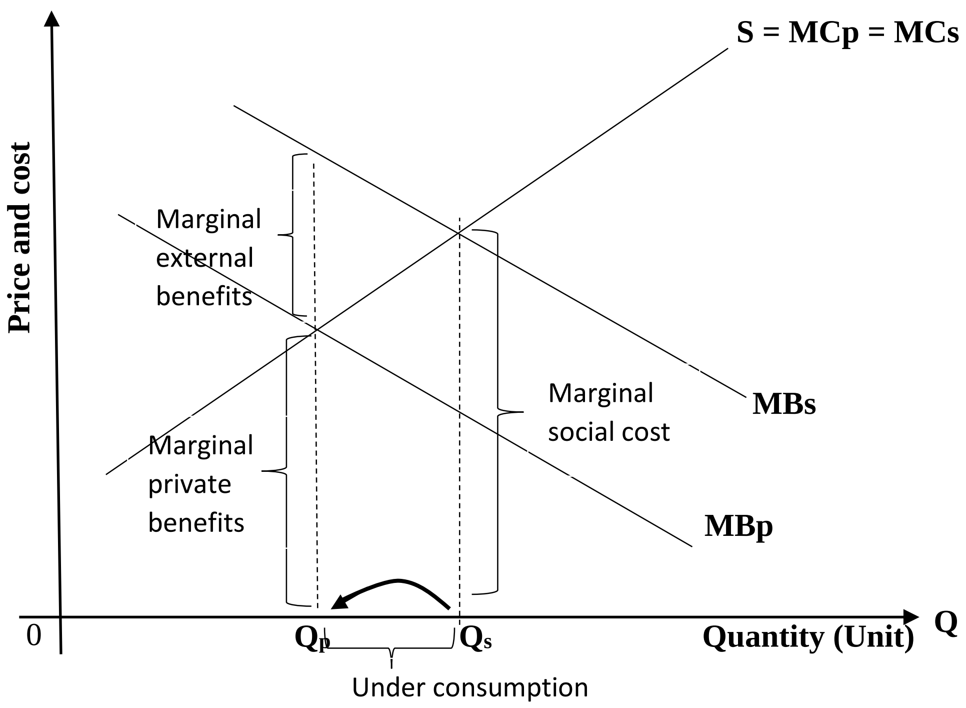


According to the above figure, market equilibrium output of Qp exceeds the socially optimum level of output of Qs and there is too much consumption (over consumption) in the presence of a negative consumption externality.

(01 mark for the correct diagram)

When a **positive externality exists in consumption**, marginal social benefit exceeds the marginal private benefit, and there is too little consumption (under consumption) in the presence of a positive consumption externality. **(01 mark)**

The following diagram presents the positive externality in consumption.



According to the above figure, socially optimum level of output of Qs exceeds the market equilibrium output of Qp and there is too little consumption (under consumption) in the presence of a positive consumption externality.

(01 mark for the correct diagram)

(<u>1 mark each for the explanation</u> of either a positive or a negative externality – maximum <u>02 marks</u>; and <u>02 marks</u> for any <u>two diagrams</u> which explain a positive and a negative externality; total 04 marks)

(ii)

Quasi-public goods are semi- non excludable and semi-non rival goods. There is no rival consumption and consumption can be limited until it reaches the capacity level.

For example, highways, gardens, beach, movie theatres, art galleries and museums are collectively consumed up to a certain limit. There is no excludability of consumption opportunity of a person due to a consumption by another person during this limit.

On the other hand, there is an ability to prevent consumers from reaching these institutions. Thus, similar to the private goods, suppliers have the ability to exclude consumers from the consumption. Therefore the term club goods are sometimes applied for quasi-public goods. For example, when a golf club or a swimming club is taken into consideration, there is no rival consumption until the club reaches the capacity level. However, the membership could be limited in a swimming club. But if one swimmer swims in the pool that does not mean that another swimmer is excluded from swimming. There is a collective consumption until the pool reaches it maximum capacity or the pool becomes crowded. Sports like golf or tennis also has similar features. There is no excludability of a person when one person plays golf or tennis.

(Using examples and explaining characteristics of quasi-public goods = 02 marks, only the definition with few examples = 01 mark)

Goods that generate higher social benefits than the private benefits in consumption are called merit goods. Consumption of merit goods generates larger external benefits to the society.

For examples, education, health services, inoculation against a contagious disease are considered as merit goods. In the case of education, although, students are aware of the sacrifice required to study, they do not consider the benefits to them in terms of a future job, salary, skills, social status and being a good citizen. Thus, education creates a positive externality in consumption and free market has failed to capture it, and the market provision of education is lower than the social optimum level of education.

And another benefit is that education generates an **external benefit** to others, from which society gains. A person is unlikely to be aware of this when making a decision on education at the point of consumption. For example, an individual student is generally not motivated to study hard in order to benefit others who include future employers, family, friends and the society.

Healthcare is also regarded as a merit good. For example, although it is not possible to know exactly when the benefit will arise, inoculation against a contagious diseases clearly provides protection to the individual, and yields a private benefit. There is also an external benefit to other individuals who are protected from catching the disease from those who are inoculated. However, few would choose inoculation simply to protect others.

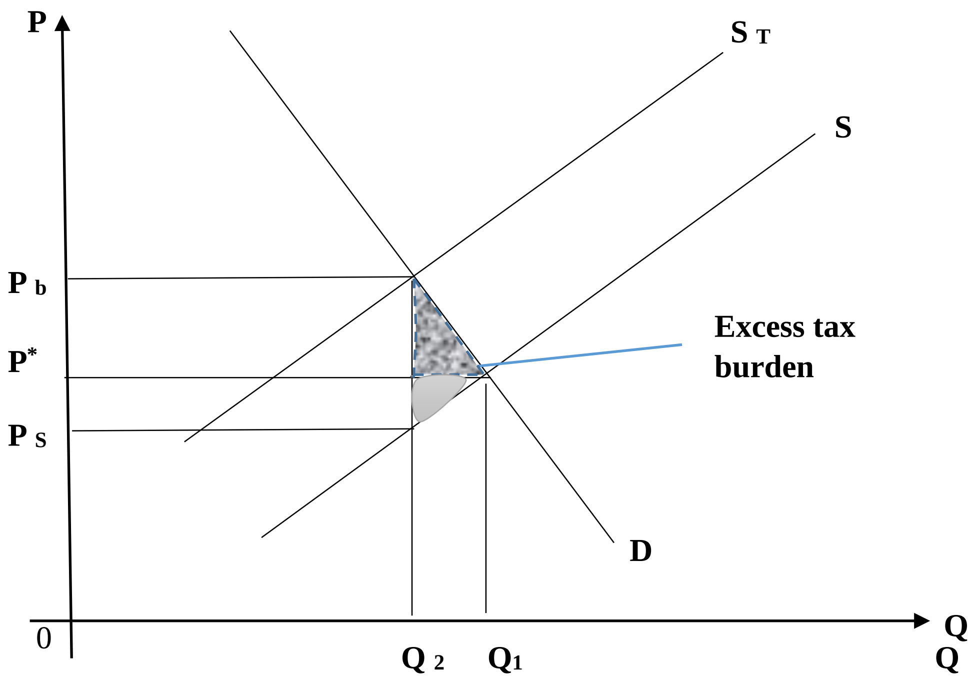
(Using examples and explaining characteristics of merit goods = 02 marks, only the definition with few examples = 01 mark)

(iii)

1. Expenditure on Goods and Services
2. Interest Payments
3. Current Transfers and Subsidies

(3 main components = 04 marks, 2 correct components = 2 marks only)

(iv) The excess burden of taxation is the efficiency cost, or loss of the efficiency or deadweight loss, associated with taxation. Excess burden is commonly measured by the area associated with the Harberger triangle. **(1 mark for the concept)**



(2 marks for the diagram)

Consumer has to bear more excess tax burden than the producer when there is an inelastic demand. (P_b-P^* > P^* - P_s) **(1 mark)**

(v)

Widely used **sources**

1. Foreign financing
   International sovereign bond issuances
   Project loans
2. Domestic financing
   Bank – Market borrowings
   1. Central Bank
   2. Commercial banks

   Non-Bank –Non-market borrowings
   1. EPF
   2. NSB **(1 source, 1 mark=total 02 marks)**

Widely used **instruments**

1. **Treasury Bonds**
2. **Treasury Bills**
3. **Sri Lanka Development Bonds**
4. **Central Bank Provisional Advances**
5. **Rupee Loans** **(1 instrument, 1 mark=total 02 marks)**

8. (i) Suppose country A can produce 80 units of good X or 60 units of good Y by using all its resources. Comparable figures for country B are 60 units of good X and 60 units of good Y.

(a) Assuming constant costs state in which product should each country specialize, based on comparitive advantages. (02 *marks*)

(b) For mutually beneficial trade to occur, what should be the limits of the terms of trade between good X and good Y? (02 *marks*)

(ii) Name **four** free trade agreements ratified by Sri Lanka. (04 *marks*)

(iii) What are the reasons for Sri Lanka's trade deficit to widen substantially over the last five years? (04 *marks*)

(iv) The Table below shows components of the Balance of Payments for a hypothetical economy.

Components of the Balance of Payments	**Rs. billion**
Trade balance	-960
Services (net)	340
Primary income (net)	-230
Secondary income (net)	630
Capital account (net)	20

(a) What is the balance on the Current Account? (02 *marks*)

(b) What is the balance on the Financial Account? (02 *marks*)

(v) What are the disadvantages of freely fluctuating exchange rates that led countries to the managed floating exchange rate system? (04 *marks*)

(i) **(a)** Country A has a comparative advantage in the production of good X because the opportunity cost of producing good X in Country A is lower than the opportunity cost of producing good X in country B.

Opportunity cost of producing good X in Country A = 60/80 = **0.7**

Opportunity cost of producing good X in Country B = 60/60 = 1

Based on comparative cost advantage, country A should specialise good X.

(1 mark)

Country B has a comparative advantage in the production of good Y because the opportunity cost of producing good Y in country B is lower than the opportunity costs of producing good Y in country A.

Opportunity cost of producing good Y in Country A = 80/60 = 1.3

Opportunity cost of producing good Y in Country B = 60/60 = **1**

Based on comparative cost advantage, country B should specialise good Y.

(1 mark)

(Calculation of opportunity cost ratios are needed to offer marks)

(b) Terms of trade

To have mutually beneficial trade, commodity X should be traded more than 0.75 units and less than 1 unit of Y (1 unit of X : Y >0.75, Y < 1) **(1 mark)**

To have mutually beneficial trade commodity Y should be traded more than 1 units and less than 1.3 unit of X (1 unit of Y : X >1, X < 1.3) **(1 mark)**

(ii)

1. APTA - Asian Pacific Trade Agreement (1975)
2. ISFTA - Indo-Sri Lanka Free trade Agreement (1998)
3. PSFTA - Pakistan – Sri Lanka Free Trade Agreement (2005)
4. SAFTA - South Asian Free Trade Agreement (2006)
5. SSFTA - Sri Lanka – Singapore free trade Agreement (2018)

(Any four agreements above= total 04 marks)

(iii)

1. Increase in import expenditure is more than the increase in export earnings. (Sharp increase of imports, driven largely on increases in vehicle imports, earnings from industrial exports showed a slight growth while agricultural and mineral exports declined).
2. Increase in expenditure on crude oil.
3. Significant depreciation of Sri Lankan Rupee against US $.
4. Slow growth rates and economic instability in major export markets.
5. Lack of export diversification.

(Any four = total 04 marks)

(iv)

(a) Current Account Balance = Trade Account Balance + Service Account Balance + Primary Account Balance + Secondary Income Account Balance

= - 960 + 340 + (-230) + 630

= - 1190 + 970

= -220

(b) Current and Capital Account Balance = Current account Balance + Capital Account Balance

= -220 + 20

= - 200

Thus, the Financial Account Balance = 200

(v)

Disadvantages of freely fluctuating exchange rates compared to managed floating exchange rate system:

1. Freely floating exchange rates increase business uncertainty and lead to less foreign trade and investment compared to manage floating exchange rate system.
2. Large scale speculation takes place under the freely floating exchange rate system than the managed floating exchange rate system.
3. There is freedom to apply an independent domestic monetary and fiscal policy under the freely floating exchange rate system, however, an irresponsible government may have a chance to abuse this policy freedom following inflationary budgetary and monetary policies.

(Any two disadvantages; total 04 marks)

9. (i) What is meant by the concept of 'productivity'? What are the main determinants of productivity? (05 *marks*)

(ii) "Growth in per capita Gross National Income (GNI) is not an adequate measure of quality of life." Explain. (05 *marks*)

(iii) What is Human Development Index? What are its advantages and disadvantages over other measures of development? (05 *marks*)

(iv) What are the causes of extreme poverty in Sri Lanka? (05 *marks*)

(i) Productivity is a measure of the rate at which outputs of goods and services are produced per unit of input.

Productivity = output/input **(01 mark)**

Followings are the determinants of productivity.

1. Labour quality (education, vocational training, experience)
2. Technology
3. Innovations (Research and development)
4. Capital investment
5. Financial market development
6. Natural resources
7. Infrastructure
8. Regulations
9. Norms and attitudes **(Any four determinants; 04 marks)**

(ii) Growth in per capita gross national income means increasing average income received by a person from the gross national income compared to previous year. GNI per capita only reflects average national income and it is not an adequate indicator to measure the quality of life. **(02 mark)**

Quality of life is a subjective term that measures **happiness, fairness, equity and dignity of a person with human rights, freedom from discrimination, right to be treated equally** without regard to gender, race, language, religion, political beliefs, nationality and socio-economic status. **(02 marks)**

Some of the factors that can affect a person's quality of life can include **conditions in the workplace, healthcare, education and material living conditions**. **(01 mark)**

Therefore growth in per capita GNI is a misleading and insufficient indicator in measuring the living standards.

(iii) Human development index is a composite index combining three dimensions of human development, namely health and longevity, education and living standards.

(01 mark)

Advantages

1. HDI has an advantage over the other measures of development because other measures are largely based on GDP data, which are both inaccurate and insufficient indicators of quality of life both within and between countries.
2. Being a monetary aggregate GDP per capita pays no attention to social aspects of human development. In contrast, HDI is a composite index coming three dimensions of human development, namely health and longevity, education and living; it does not only based on income indicators.
3. The HDI is a very useful measure for international comparison of development between countries than other measures.
4. HDI is a useful measure to judge how the social policies impact on a county's economic development compare to other measures.
5. Information related to the calculation of HDI updates annually and collects by a range of people who ensure that the data is as accurate as possible.

(Any two advantages = 2 marks)

Disadvantages

1. HDI is an aggregate measure and it doesn't indicate the internal disparities in development.
2. HDI is not taken into account of every aspect to human development. It focuses only on three dimensions of basic capabilities, other aspects of such participation, political freedom, human security are equally important.
3. Equal weights is given to each of the three main components of HDI.
4. No attention is made on role of quality (Standard of school education, extra year of life as healthy, well-functioning individual with sharply limited range of capabilities).
5. HDI does not include environmental factors.

(Any two disadvantages = 2 marks)

(iv) Extreme Poverty is defined as an individual living on less than \$1.90 a day. It remains low, as the \$1.90 (PPP 2011) poverty rate fell half a percentage point, from 2.4 to 1.8 per cent between 2009/10 and 2012/13.

Causes of extreme poverty:

1. Limited earning opportunities for youth
2. Living in a remote area
3. Ineffective social assistance programmes
4. Low productivity in agriculture
5. Lack of infrastructure
6. Living in a household with agriculture as a main source of income
7. Having a low level of education

8. Having a physical disability
9. Being elderly
10. No land ownership
11. Malnutrition
12. Internal displacement due to conflicts

(1 mark for each for any cause = maximum 5 marks)

10. (i) Describe briefly, how the development policies in Sri Lanka after independence have changed with the political regimes. (05 *marks*)

(ii) "The postponement of the much needed structural reforms has moved the Sri Lankan economy to a very low growth path at present." What are these growth-enhancing reforms that Sri Lanka has delayed implementation? (05 *marks*)

(iii) Mention the shortcomings of the investment climate and factor markets which pose obstacles for investments in Sri Lanka. (05 *marks*)

(iv) "Sri Lanka's public debt remains very high and at the same time the debt portfolio indicates some significant risks on debt sustainability." Explain this statement especially focusing on the size and the composition of public debt in Sri Lanka. (05 *marks*)

(i) Development policies of Sri Lanka over the past seven decades or after the independence changed according to the political regime. Following is the breakdown of durations based on differences of development policies due to political regime change.

1. **1948-1956 : Popular economic policies with open economy**
   - United National Party continued with popular social welfare programmes covering entire country esp. foods subsidy programme, mixed role (laissez-faire policies with government intervention introduced by colonial rulers) of the government.
2. **1956-1965: Popular economic policies with controlled economy**
   - Political regime changed in 1956 and coalition government was formed named as *Mahajana Eksath Peramuna*. State capitalism, broader government roles, strategic industries under government monopoly, government protection to medium and small scale industries, import substitution polices for domestic industrialisation and ten year plan (1959-68) introduced.
3. **1965-1970: Limited amount of liberal economic policies**
   - Political regime changed and coalition government was formed by UNP. This regime used market mechanism for production and distribution, avoided introducing state enterprises, government expenditure centred to infrastructure development,

promotion of non-traditional exports, relaxation of import controls and agricultural development proposal (1966-70).

4. **1970-1977: Targeting domestic economy with import substitution industrialisation**
   - Political regime again changed and government was formed by *Samagi Peramuna* lead by SLFP.
   - Promised to make Sri Lanka a socialist state through reforms.
   - Inward oriented import substitution policies were introduced.
5. **1977-2005: Economic liberalisation**
   - Development policies again changed due to political regime changed and UNP formed the government. Economic policies again targeted to promote private sector and economic liberalisation was resumed.
   - Outward oriented industrialisation and open economic policies were introduced.
   - Second wave of Economic liberalisation under UPFA led by SLFP government during the period of 1988-2002 continued to follow open economic policies with human face, and again UNP led government during 2002-2004.
6. **2005-2015: National economic policies with protectionism and post war infrastructure development**
   - Political regime changed in 2005 and government was formed by UPFA led by SLFP again. Government rejected the neo liberal economic policies and focused on national economic policies, domestic agriculture and rural infrastructure development. Rejected privatisation and mega infrastructure development projects introduced during the post war.

7. **From 2015: Knowledge centred social market economy**

   - Political regime again changed in 2015 led by the UNP. Vision 2025, government investment programme of 2017-2020, national export strategy (2018-2022) were introduced.
   - Sustainable development targets and good governance principles were adopted. Free trade agreements, bilateral trade agreements, public-private partnerships, economic growth led by exports, improve productivity and technology, human development, encouraging investment, promoting tourism, addressing the unemployment issue and development through knowledge cantered social market economic policies.

(01 mark for any regime and total 05 marks should be given if any five of the above regime changes are briefly described).

According to the above explanation, Sri Lanka's development polices have changed regularly depending on which political party obtains power. In post-independence

Sri Lanka, political parties have failed to develop and agree on national economic policies for the country yet that remain constant irrespective of regime changes.

(ii)

1. Strengthening public administration (complex institutional framework in the public sector)
2. Reforms in State-owned Enterprises (SOEs)
3. Factor market reforms (example; labour market reforms -accommodating flexible office hours, less rigid working conditions)
4. Reforms to establish the rule of law
5. Reforms in the area of export promotion, attracting FDI (delaying One-Stop Shop for FDI), reducing budget deficits and debt levels

(01 mark for any reform; total 05 marks)

(iii)

1. High transaction costs involved with regulatory compliance and lack of confidence on regulatory agencies
2. Red tape and corruption
3. Poor-quality infrastructure (especially energy and transport, electricity cost is high and supply unreliable)
4. Costly and limited access to finance
5. Skilled labour force issue, rigid, inflexible, and arbitrary nature of the labour market
6. Economic and political instability

(01 mark for any shortcoming; total 05 marks)

(iv)

Debt sustainability refers to the ability of a country to meet its current and future debt obligations without resorting to debt rescheduling and without the need for any major fiscal adjustment. **(01 mark)**

High level of public debt

The central government debt to GDP ratio increased to 82.9 per cent at end of the year 2018 from 76.9 per cent at end of the year 2017.

Or

In absolute terms, the total outstanding central government debt stock increased by 16.1 per cent to Rs. 11,977.5 billion at the end of the year 2018 from 10,313 billion at the end of the year 2017. **(For any increase in public debt level = 01 mark)**

Nature of the debt portfolio

The share of domestic debt as a percentage of GDP decreased marginally to 41.6 per cent by end 2018 from 41.7 per cent at end 2017, while the share of foreign debt increased notably to 41.2 per cent of GDP at the end of 2018 from 35.2 per cent of GDP at end 2017.

Or

The foreign currency denominated domestic debt increased marginally to Rs. 714.7 billion (US dollars 3,911.0 million) at end 2018 from Rs. 702.1 billion (US dollars 4,593.2 million) at end 2017.

Or

The outstanding balance of foreign debt increased significantly to Rs. 5,959.5 billion at end 2018 from Rs. 4,718.6 billion at end 2017.

Or

In 2018, Non Concessional foreign debt 55%; Concessional foreign debt 45% and concessional foreign debt is dominated by International Sovereign Bonds (37%).

Or

According to the currency composition of total outstanding central government debt in 2018, LKR - 46%, USD - 32%, SDR- 8%, Japanese Yen - 5%, Euro - 2%.

(For any nature of debt portfolio = 01 mark)

According to the size and the composition of public debt in Sri Lanka, maintaining debt at a sustainable level is important otherwise the following risks could be encountered.

- High and rising debt level can reduce the effectiveness of fiscal policy and monetary policy. Such growth in government debt creates a risk in fiscal deficits and the sustainability of debt serving.
- Access to concessional financing with the gradual rise in per capita income is restricted and there is a risk in more non-concessional foreign loans, syndicated loans and short-term borrowings at higher interest rates.
- Depreciation of the exchange rate further increases debt portfolio.

(01 mark for any risk; total 02 marks)

NOTES