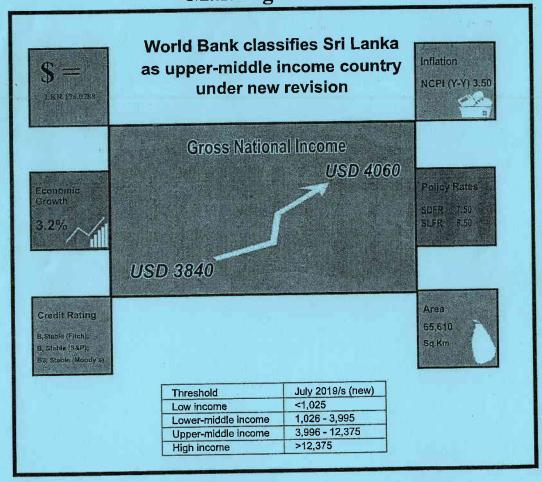
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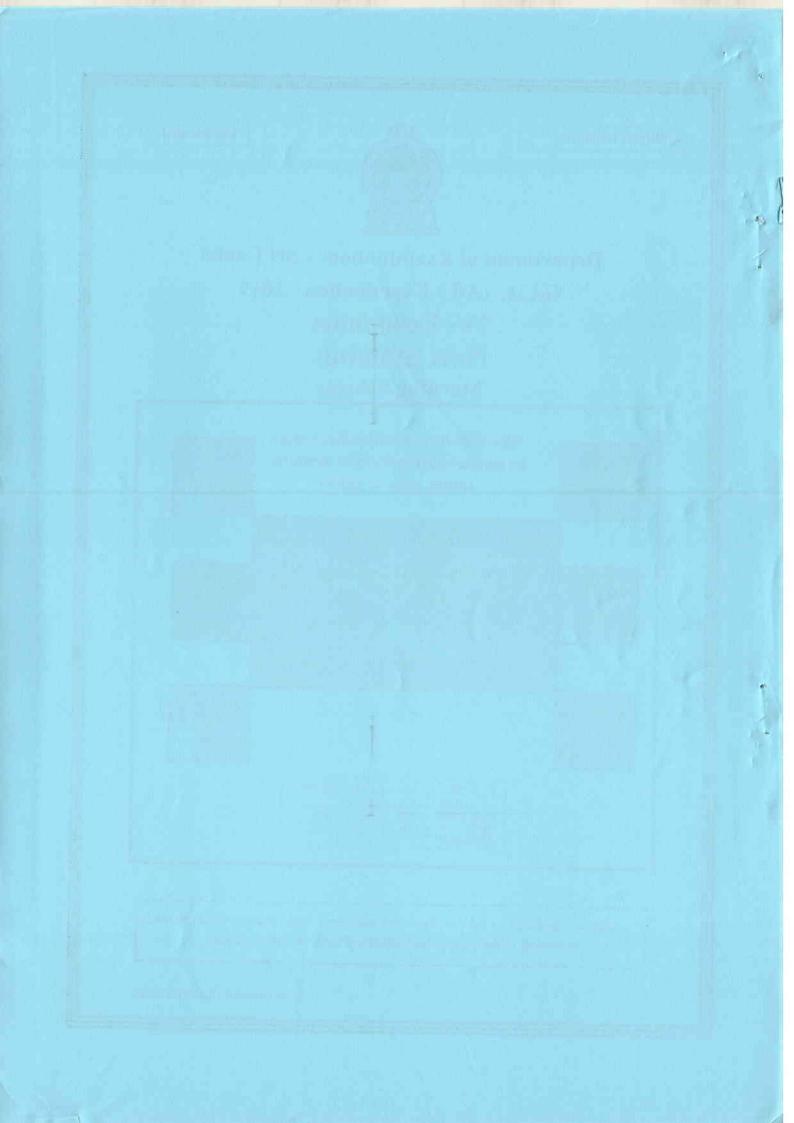


# Department of Examinations - Sri Lanka G.C.E. (A/L) Examination - 2019 21 - Economics New Syllabus Marking Scheme



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

Amendements to be included



ශී ලංකා විතාග දෙපාර්තමේන්තුව இலங்கைப் பரீட்சைத் திணைக்களம்

අ.පො.ස. (උ.පෙළ) විතාගය/ க.பொ.த. (உயர் தர)ப் பரீட்சை - 2019 නව නිර්දේශය/ பුනිய பாடத்திட்டம

වීමය අංකය url මුනස්සග්

21

විෂයය பாடம்

**ECONOMICS** 

# ලකුණු දීමේ පට්පාට්ය/புள்ளி வழங்கும் திட்டம்

[ පතුය/பத்திரம் I

ජුශ්න අංකය ඛ්යා இහ.	පිළිතුරු අංකය බෝන L මුන.	පුශ්න අංකය බේෂා මුහ.	පිළිතුරු අංකය බුණි මුහ.	පුශ්න අංකය බේනා මුන.	පිළිතුරු අංකය விடை இல.	පුශ්න අංකය බෝහැ මුහ.	පිළිතුරු අංකය ඛා්ණ L මුන.	පුශ්ත ආකය බෝ <b>ශ</b> ණ මුණ.	පිළිතුරු අංකය බේකා මුන.
01.	2_	π.	3	21.	5	31.	3	41.	5
02.	4_	12.	2	22.	2	32.	_3	42.	5
03.	3	13.	2	23.	3	33.	1	43.	4
04.	2	14.	4	24.	5	34.	2	44.	3
05.	4_	15.	2	25.	2	35.	1	45.	_3
06.	1	16.	4	26.	4	36.	4	46.	2
07.	11	17.	5	27.	3	37.	2	47.	_5
08.	4	18.	4	28.	3	38,	3	48.	_1
09.	3	19.	3	29.	4	39.	4	49.	2
10.	1	20.	5	30.	3	40.	2	50.	5

🔾 විශේෂ උපදෙස්/ விசேட அறிவுறுத்தல் :

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

මුළු ලකුණු/மொத்தப் புள்ளிகள் 2 × 50 = 100



#### 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.)

01	
(i) Define and classify 'economic resources'.	(04 marks)
(ii) Explain why scarcity leads to trade-offs.	(04 marks)
(iii) How does the production possibilities frontier illustrate the following conce- (a) problem of scarcity (b) opportunity cost (c) economic recession (d) economic growth	epts? (04 marks)
(iv) Explain why all combinations of goods shown on a production pos- curve display production efficiency but only one combination displays a efficiency.	sibilities llocative (04 <i>marks</i> )
(v) How does a market economic system differ from a command economic sy in solving the questions about resource allocation?	ystem (04 <i>marks</i> )

- (i) Productive resources which are scarce or limited in supply in relation to the infinite wants of the society are called economic resources. (01 mark)
  - Opportunity cost is positive with economic resources. decision to use them for one purpose means something else will be given up. (01 mark)
  - Economists classify economic resources into four categories:
    - Land
    - Labour
    - Capital and
    - Entrepreneurship.

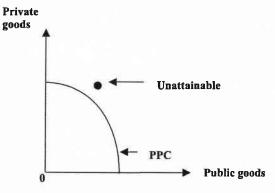
(0.5 marks for each and total of 02 marks)

# [Alternative answer for classification of economic resources:

- Property resources: Natural resources and Capital (01 mark)
- Human resources: Labour and Entrepreneurship (01 mark)]
- (ii) Scarcity is a basic problem of the economy which arises because of availability of limited resources but presence of unlimited wants of human beings. Furthermore, these limited resources have alternative uses. (01 mark)
  - The fact that goods and services are scarce means that both the individuals and society cannot have all of everything they want. Due to this problem of scarcity, some decisions must be taken in order to allocate limited resources in efficient manner. It is therefore, necessary to choose among alternatives. (01 mark)
  - When the society or individuals make a choice, they select from the available alternatives. Whatever choice they make, they could have chosen something else instead. In order to have one thing they need to sacrifice the other thing. You can think about your choice as a tradeoff. A tradeoff is an exchange giving up one thing to get something else. When you choose among alternatives, tradeoff is unavoidable.

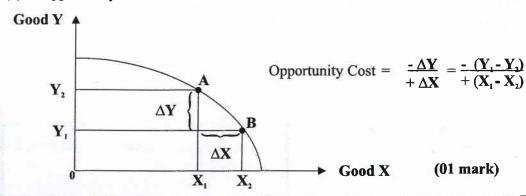
(02 marks)

# (iii) (a) Problem of Scarcity:

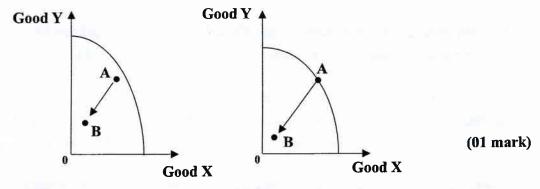


(01 mark)

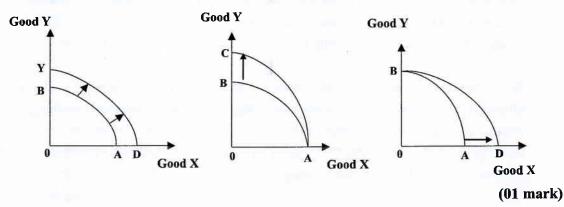
# (b) Opportunity Cost:



#### (c.) Economic recession:



# (d.) Economic growth:



- (iv) All points on a PPC represents full employment and full production. On the PPC, goods are produced using least-cost resource combinations (maximum output per unit of input or minimum amount of input per unit of output). Thus, on a PPC it is not possible to produce more of any one good without giving up of some other goods. This characteristic is known as productive efficiency.
  - However, the achievement of productive efficiency does not ensures the achievement of allocative efficiency. Allocative efficiency occurs only when the resources are allocated to produce goods most wanted by society. For example, a productively efficient combination of goods may not be the combination of goods most preferred by society. Thus, the allocative efficiency is achieved when the marginal cost of each good produced equals marginal benefit that consumers derive from that good. (02 marks)
- In a market economy, decisions relating to resource allocation are made without any central direction. They are nevertheless coordinated. The main coordinating device is the set of market-determined prices.
  - Market economy requires no planning authority, no bureaucracy, to allocate resources. The price mechanism works as a result of millions of decisions made by individual producers and consumers acting in their own self-interest.

- The key to the whole process of resource allocation in a market economy is to be found in the role of prices, which perform the crucial function of providing signals that help to determine the allocation of resources.
- In command economies, questions about resource allocation are decided by some central authority, which makes all the necessary decisions on what to produce, how to produce, and who gets it. Such economies are characterized by centralization of decision-making.
- Centralized decision making requires a comprehensive plan for the economy to solve the basic economic questions. Planners need to know the entire range of technological possibilities for production and to have full details of the supplies of all factors of production. On the basis of this information, planners decide their choices of goods and services to be produced and how to produce them. Planning the allocation of commodities is done by decree: e.g. by rationing. However, planners often use prices for distribution. They set the prices of consumer goods and leave individuals to buy what they wish at the controlled prices.

(01 mark each for any four differences; total marks 04)

02		
2. (i	) (a) What factors influence the market demand for a normal good?	(02 marks
	(b) Explain why a reduction in the price of a normal good does not increase the demand for that good.	(02 marks
(ii)	Explain why the quantity demanded of a good decreases as its price increases.	(04 marks
(iii	) Market demand and supply equations for a particular commodity are given below.	
	Demand equation: $Q_D = 60-3 P$ Supply equation: $Q_S = -10+2P$	
	Calculate the economic surplus at market equilibrium.	(04 marks
(iv	) Briefly describe the factors influencing price elasticity of supply.	(04 marks
(v)	Suppose the average monthly income of a consumer rises from Rs.35000 to Rs.45000 and the quantity of bread consumed by the consumer in the same month falls from 30 loaves to 20 loaves. What is the income elasticity of the demand for	€:
	hread of this consumer? Is bread a normal or an inferior good under this situation?	(04 marks

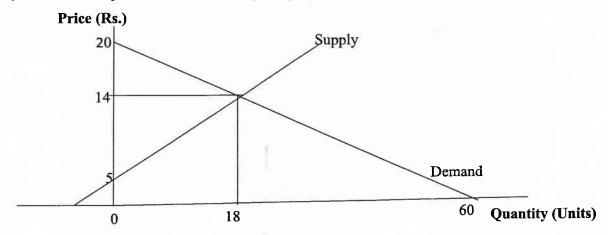
- 1. (i) Price of the good
  - Money income of consumers
  - Prices of related goods
  - Consumer expectations
  - Consumers tastes
  - Number of consumers in the market
  - Other factors: sociological and demographic, acts of God, acts of the state.

(01 mark each for any two factors; total marks 02)

- A change in the price of the commodity does not affect the change in demand for a commodity. However, the change in the price of the commodity affects only the quantity demanded of the product rather than the change in demand.

(02 marks)

- (ii) There is an inverse relationship between the quantity demanded and the price of the commodity. This relationship is described as the Law of Demand.
  - There are two reasons for consumers to demand less of a commodity as its price falls. (a) substitution effect and (b) income effect. (01 mark)
  - Substitution effect: When the price of the good rises, other things remaining the same, its relative price rises. People buy less of a relatively expensive commodity and buy (substitute) more of its relatively cheap substitutes. (02 marks)
  - Income effect: When the price of the good rises, other things remaining the same, consumers real income (purchasing power of his money income) falls. They cannot afford to buy all the things they previously bought. Therefore, they must decrease the quantities demanded of normal goods. (02 marks)
- (iii) Economic surplus can be calculated by using a graph or a set of equations:



- Market equilibrium (using the graph):

Price = Rs. 14

(01 mark)

Quantity= 18

(01 mark)

Market equilibrium price and output: (using equations)

$$-60-3P = -10+2P$$

$$70 = 5P$$

$$P = Rs. 14$$
  $O = 18$ 

(02 marks)

- Economic surplus = Consumers surplus + Producers surplus
- Consumers surplus =  $(6 \times 18) \div 2 = 108 \div 2 = 54$
- Producers surplus =  $(9 \times 18) \div 2 = 162 \div 2 = 81$
- Economic surplus at market equilibrium = 54+81 = 135 (02 marks)

# [Alternative calculation of economic surplus:

Difference between vertical intercept of the demand curve (= price at which quantity demanded would be zero) and the vertical intercept of the supply curve (= price at which the quantity supplied would be zero) x Equilibrium Quantity (= 18) ÷ 2 = Economic surplus

- $\{(20-5) \times 18\} \div 2 = 270 \div 2 = 135$  (02 marks)
- (iv) Resource substitution possibilities (factor mobility): The ease with which factors of production can be moved from one use to another will affect price elasticity of supply.
  - Time frame for the supply decision: There are three time frames of supply: (a) market period, (b) short run and (c) long run. The market period is so short a time that producers cannot respond to a change in demand and price. In the short run the plant capacity of producers is presumed fixed. But firms do have time to use their plants more or less intensively. The long run is a time period sufficiently long so that firms can make all desired resource adjustments.
  - Type of good (storage possibilities): Durable (non-perishable) goods and non-durable (perishable goods); Elasticity of supply is inelastic for perishable goods and elastic for durable goods.
  - Availability of stocks: When there are adequate stocks with the producer, supply will be more elastic.
  - Flexibility of capacity (spare capacity): When there is spare capacity available supply will be more elastic.
  - Type of inputs used in the production process: Some goods and services can be produced only by using unique or rare productive resources. These items have a low, even perhaps zero, elasticity of supply. Other goods and services can be produced by using commonly available resources. Such items have a high elasticity of supply.

(02 marks each with brief description; without description 01 mark each; total marks 04)

(v) - Income elasticity of Demand:

Income Level	Quantity Demanded	
35,000	30	
45,000	20	

[Since the income variation is substantial, point elasticity formula is not valid in this case; Arc elasticity formula would be more appropriate for elasticity calculation.]

$$\eta = \frac{-10}{10,000} \times \frac{(35,000 + 45,000)/2}{(30 + 20)/2} = \frac{-10}{10,000} \times \frac{40,000}{25}$$
 (01 mark)

$$\eta = \frac{40}{25} = \frac{8}{5} = -1.6$$
(01 mark)

(b) - Bread is an inferior good because its income elasticity is negative (i.e. -1.6).

(01 mark)

# 03

3. (i) Mention four main factors influencing change in supply.

- (04 marks)
- (ii) Explain why the prices of primary products such as agricultural crops are often unstable in a market.
- (04 marks)
- (iii) What measures could be taken by the government to stabilize the prices of agricultural commodities?
- (04 marks)
- (iv) The equations relevant to market demand and supply curves for a particular good are given below.

Demand equation:  $Q_D = 200-2P$  Supply equation:  $Q_S = -100+4P$ 

(a) Assume that the government has imposed a unit tax of Rs. 6 per unit on the production of this good. What price do buyers pay for the good after the tax?

(04 marks)

- (b) How much revenue will the government collect from this tax?
- (04 marks)

- 3. (i) Changes in input prices (cost of production)
  - Change in the state of technology
  - Changes in the prices of related goods (goods which can be produced with the same inputs)
  - Changes in government policy (Taxation policies and regulations)
  - Change in the number of suppliers
  - Change in natural conditions (climatic factors)
  - Changes in the goals of the firm
  - Changes in firms' expectations

(01 mark each for any four factors; total marks 04)

(ii) - The agricultural commodity markets experience extreme price fluctuations more and more frequently. Price volatility is a fundamental feature of agricultural markets and probably one of the main sources of risk in agricultural trade. Many production decisions are taken well in advance of product sales, and there generally exists a certain amount of uncertainty about the price that will be received for final products. The main reasons for this were changes in fundamental supply and demand factors.

(01 mark)

- Inelastic demand: Demand for most primary products are relatively price inelastic. If the price of tea falls, there will be a smaller percentage rise in demand. This is because there are few close substitutes to tea. Also, tea accounts for a small percentage of income and therefore a change in price doesn't make much difference to overall demand. Food is a necessity. Therefore demand for food is inelastic. Since demand and supply are inelastic, any change in supply can cause a significant change in price. With inelastic demand, a change in supply causes relatively large change in the price.
- Inelastic supply: In the short term, the supply of tea, rubber coconut, cinnamon, coffee etc. is inelastic. If price rises, farmers can't respond by increasing supply overnight. You have to clear the ground and plant more tea/rubber/coffee plants. It will take 3-5 years before new plants start to produce crop. Therefore, there is a big delay in responding to changing prices. (01 mark)
- Natural factors: Coffee, tea, coconut, potato are agricultural products, and therefore supply can be variable depending on several factors behind the control of producers (weather, disease). For example, an early frost can harm supply (causing a rise in prices). This is a problem for agricultural products like tea, potato, vegetables. Good weather can lead to an unexpectedly large increase in supply (which can lead to glut on the market and falling prices. Also, disease and pests can affect the supply. If potatoes are affected by blight, it can cause potato prices to rise. (01 mark)
- Agricultural production period is usually longer and the most of the crops are in non-durable (perishable) nature and individual farmers may be unable to accumulate stocks. In the short term, the supply of agricultural crops is inelastic. If price rises, farmers can't respond by increasing supply overnight. (01 mark)

(01 mark each for any four explanations; total marks 04)

- (iii) Guaranteed price scheme
  - Deficit payment scheme
  - Minimum price
  - Production quotas
  - Incentive payments for not cultivating land

- **Buffer stock schemes**
- Export subsidy schemes
- Market information

# (01 mark each for any four explanations; total of marks 04)

- Buyer's price after tax: (iv) (a)

$$Q_{D} = 200 - 2P_{b}$$
  $Q_{S} = -100 + 4P_{s}$   
Buyer's price (Pb) = Ps + t Seller's price (Ps) = Pb - t (01 mark)  
 $200 - 2P_{b} = -100 + 4(P_{b} - 6)$  (01 mark)  
 $200 - 2P_{b} = -100 + 4P_{b} - 24$   
 $324 = 6P_{b}$   
 $54 = P_{b}$  (02 marks)

Government revenue from the tax:

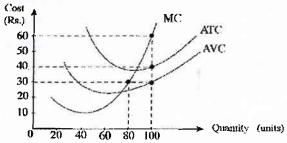
Tax revenue = Tax per unit x Equilibrium quantity demanded (01 mark)  
Quantity demanded after tax = 
$$200-2(54) = 200-108 = 92$$
 (01 mark)

Tax per unit 
$$=$$
 Rs. 6

Tax revenue 
$$=92 \times 6 = 552$$
 (02 marks)

04

- 4. (i) Distinguish between explicit (direct) and implicit costs. What are some of your explicit and implicit costs as a result of your attending school?
  - (04 marks)
  - (ii) What distinguishes a firm's short run period from its long run period in production process?
    - (04 marks)
  - (iii) What are the four basic assumptions of perfect competition?
- (04 marks)
- (iv) The diagram below presents a perfectly competitive firm operating in the short-run producing an equilibrium output of 100 units.



Calculate the following at the equilibrium level of output.

(a) Total revenue received by the firm

(02 marks)

(b) Total cost incurred by the firm

(02 marks)

(c) Total fixed cost of the firm

(02 marks)

(d) Total economic profit or loss of the firm

- (02 marks)
- (i) Explicit costs are the direct costs of resources that the firm uses that are supplied from 4. (01 mark) outside the firm.
  - Implicit costs are the values of the best opportunity foregone (opportunity cost) by (01 mark) the firm when it uses resources supplied by the firm's owners.

# Explicit costs of attending school:

# Implicit costs of attending school:

- cost of stationery
- cost of travelling cost of facilities fees

- opportunity cost of time
- Income foregone
- missing the opportunity to help parents economic activities

# (01 mark for any explicit cost item and 01 for any implicit cost item; total marks 02)

- (ii)- The short run is a time frame in which the quantities of some resources are fixed. For most firms, the fixed resources are the firm's technology, buildings, and equipment.
  - The long run is a time frame in which the quantities of all resources can be varied. All inputs become variable inputs.
  - In the short run, a firm is engaged in production using both fixed and variable inputs.
  - In the short run, production is subject to the Law of Diminishing Returns. In the long run, production is subject to the Law of Returns to Scale.

# (01 mark each and total marks 04)

- (iii) Homogeneous product
  - Many sellers
  - Perfect information
  - Freedom of entry and exit

#### (01 mark each and total marks 04)

Total revenue of the firm at the equilibrium level of output: (iv) (a)

> (01 mark) Price per unit x total output (01 mark)  $Rs.60 \times 100 = Rs.6000$

Total cost at the equilibrium level of output: (b)

> ATC x Q (01 mark)  $Rs.40 \times 100 = Rs.4000$ (01 mark)

(01 mark) Total fixed cost:  $AFC (=ATC-AVC) \times Q$ (c) (01 mark)  $(40-30) \times 100 = Rs. 1000$ 

Total economic profit or loss = TR-TC(01 mark) (d) Economic Profit = 6000-4000 = Rs.2000(01 mark) 05

- 5. (i) Which of the following items of government expenditure are 'collective' and which are 'individual'?
  - (a) Fertilizer subsidy
  - (b) Medical research
  - (c) Police and fire brigades
  - (d) School mid-day meal

(04 marks

(ii) You have been given the following data for a hypothetical economy.

<u>Item</u>	Value (Rs. billion)
Compensation of employees	2 500
ross operating surplus 60	
Consumption of fixed capital	700
Other taxes less subsidies on production	50
Taxes on products	1 200
Subsidies on products	250
Net primary income from the rest of the world	-400
Net current transfers from the rest of the world	1 000

Calculate the following based on the above data.

(a) Gross Value Added at basic price

(02 marks)

(b) Gross Domestic Product

(02 marks

(c) Net National Income

(02 marks)

(d) Gross National Disposable Income

(02 marks)

(iii) Use a 45° line diagram to illustrate macroeconomic equilibrium. In your diagram show the aggregate expenditure function and the equilibrium level of national income. (Make sure that axes are properly labelled.)

(04 marks)

- (iv) Suppose in a hypothetical economy marginal propensity to consume is 0.9 and when the Gross National Disposable Income is zero, aggregate consumption is 100.
   Assume that investment (I) = 200, government purchases (G) = 45, net exports (NX) = 0, and taxes (T) = 50. (All figures are in Rs. billions)
  - (a) Find the equilibrium level of Gross National Income (Y).

(02 marks)

(b) What would be the effect on equilibrium national income of a simultaneous increase in government purchases (G) and taxes (T) of Rs. 10 billion?

(02 marks)

- 5. (i) (a) Fertilizer subsidy
- Individual
- (b) Medical research
- Collective
- (c) Police and Fire brigades
- Collective
- (d) School mid-day meal
- Individual

(01 mark each and total marks 04)

(ii) (a) Gross Value Added at basic price:

Compensation of Employees

2,500

Gross Operating Surplus

6,000

Other taxes less subsidies on Production

50

GVA at basic price

Rs. 8,550 billion

(01 mark for correct listing of items; 01 mark for the correct answer; total marks 02)

(b) Gross Domestic Product:

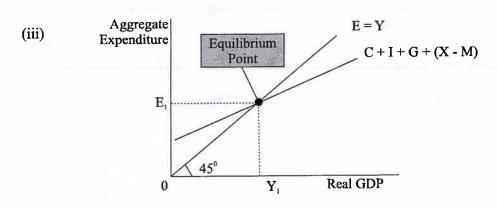
$$GDP = 8.550 + (1200 - 250) = Rs. 9,500 \text{ billion}$$
 (01 mark)

(c) Net National Income:

$$NNI = (9,500-700) + (-400) = Rs. 8,400 \text{ billion}$$
 (01 mark)

(d) Gross National Disposable Income:

GNDI = 
$$9500 + (-400) + 1000 = \text{Rs.} 10, 100 \text{ billion}$$
 (01 mark)



(02 marks for the correct diagram; 02 marks for the equilibrium Income level, total marks 04)

(iv) (a) - Equilibrium level of GNI:

$$Y = C + I + G + (X - M)$$
  
 $C = 100 + 0.9 Y_D (= Y - T)$   
 $Y = 100 + 0.9 (Y - 50) + 200 + 45 + 0$  (01 mark)  
 $Y = 100 + 0.9 Y - 45 + 245$   
 $Y = 300 + 0.9 Y$   
 $0.1 Y = 300$ ;  $Y = 3000$  (01 mark)

- (b) Increase in government purchases of Rs. 10 billion has a multiplier effect on GDP equivalent to  $K_G \times 10$  (=  $\frac{1}{1-b} \times 10 = \frac{1}{1-0.9} \times 10 = 10 \times 10 = 100$ 
  - Increase in taxes by Rs 10 billion has a negative multiplier effect on GDP equivalent to  $K_T \times 10$  (=  $\frac{b}{1-b}$   $\times 10 = \frac{0.9}{1-0.9} \times 10 = 9 \times 10 = -90$

- Therefore the net impact of the simultaneous increase in government purchases and taxes of Rs. 10 billion will be the expansion of GDP by Rs. 10 billion ( $K_G x 10 = 100$  and  $K_T x 10 = -90$ ). (02 marks) [Alternative answer:
- Equal increases in government spending and taxation by Rs. 10 billion increase the equilibrium GDP by Rs. 10 billion. That is, if G and T are each increased by Rs. 10 billion, the equilibrium level of domestic output rise by the same amount as it is a balanced budget. Balanced budget multiplier equals to 1 (02 marks)

#### Sub section 'B'

(Select minimum of two questions from this section.)

6.	i) What is the GDP deflater? What are the major differences between GDP deflater		
	and the Colombo Consumers' Price Index.	(04	marks
(	i) Explain the concept of inflationary gap using a diagram.	(04	marks
(i	<ol> <li>Distinguish between the transactions demand for money and speculative demand for money.</li> </ol>	(04	marks
(i	Y) Suppose that a bank customer newly deposits Rs, 10 000 in the current account and the required reserve ratio is 0.25.		
	<ul><li>(a) What are the required reserves for this new deposit?</li><li>(b) What is the maximum amount of loan that the bank can grant on the basis</li></ul>	(02	mark:
	of this new deposit?	(02	mark
(	Explain the role of the standing rate corridor in maintaining the stability of financial system in Sri Lanka.	(04	mark.

- 6 (i) GDP deflator is a economic metric that accounts for the effects of inflation in the current year's Gross Domestic Product by converting its output to a level relative to a base period. The GDP deflator is calculated with the following formula:
  - GDP Deflator =  $\frac{\text{Nominal (GDP at current prices)}}{\text{Real GDP (= GDP at constant porices)}} \times 100$  (01 mark)
    (Total marks 02)
  - GDP deflator covers prices of all final goods and services produced in the economy.

    Consumers' Price Index covers only the prices of a selected basket of consumer goods and services consumed by the people living in urban areas of Colombo district.

    (01 mark)
  - GDP deflator covers only the goods and services produced within the economic territory. But the Colombo Consumers' Price Index covers imported consumer goods as well as domestically produced consumer goods. (01 mark)

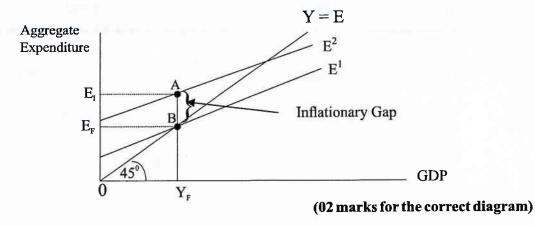
- Colombo Consumers' Price Index is an indicator of cost of living of the people living in urban areas of Colombo district, whereas the GDP deflator is an indicator of overall price behavior of the economy.

  (01 mark)
- Colombo Consumers' Price Index is based on the prices of a fixed basket of consumer goods and services and those prices are assigned weights according to their relative importance in consumer budget. The GDP deflator is not based on a set of selected prices. Also the composition of goods and services included in GDP deflator may vary over time.

(01 mark each for any two differences; total marks 02)

(ii)— The amount by which aggregate planned expenditure exceeds the aggregate expenditure required for full employment level GDP is called an inflationary gap. This gap is a measure of the amount of aggregate excess expenditure over and above the amount that the economy can produce when operating at full capacity.

(02 marks)



- (iii)—Transactions demand for money is related to the function of money as a medium of exchange whereas the speculative demand for money is related to the function of money as a store of wealth. (02 marks)
  - Payments and receipts are not perfectly synchronized and therefore, firms and households must hold balances of money to conduct their transactions smoothly. The amount of money that people wish to hold for this purpose is called transactions demand for money.

Money has an opportunity cost in the form of the interest forgone by not using the money to buy some interest bearing assets such as bonds. But the major problem with holding wealth in the form of bonds is that the price of bonds may vary. The variability in the price of bonds affects the people's demand for money balances assets. The change in people's demand for money balances as a result of the

knowledge that bond prices change frequently is called speculative demand for money. (02 marks)

- The public's transactions demand for money is positively related to the level of national income measured in current prices. Speculative demand for money varies negatively with the rate of interest. The higher the rate of interest the lower the demand to hold money, and vice versa.

(02 marks)

(02 marks each for any two differences, total marks 04)

(iv) (a) Required reserves for the new deposit:

- Amount of the new deposit = Rs. 10,000

- Required reserve ratio = 0.25 (=25%)

Required reserves  $= 10,000 \times 0.25 = \text{Rs.} 2,500$ 

(02 marks)

(b) Maximum amount of loan:

- Amount of new deposit = Rs. 10,000

- Required reserves for the deposit  $= 10,000 \times 0.25 = 2,500$ 

- Excess reserves = 10,000-2,500 = 7,500 (01 mark)

- Maximum amount of loan = Excess reserves = Rs. 7,500 (01 mark)

- (v) One of the key elements of the monetary policy of Sri Lanka is the interest rate corridor formed by the main policy rates of the Bank i.e. Standing Deposit Facility Rate (SDFR) and Standing Lending Facility Rate (SLFR). This corridor forms the lower and upper bounds for the overnight interest rates in money markets. These rates, which are the Bank's signaling mechanism on its monetary policy stance, are reviewed on a regular basis, usually eight times per year, and revised if necessary.
  - Standing facilities are available for those participating institutions which were unable to obtain their liquidity requirements at the daily auction. That is, even after an auction, if a participant has excess money he could deposit such funds under the standing deposit facility. Similarly, if a participant needs liquidity to cover a shortage, he could borrow funds on reverse repurchase basis under the standing lending facility. Accordingly, these facilities help containing wide fluctuations in interest rates. (02 marks)

7. (i)	Mention four major functions of government in a mixed economy.	(04	marks
(ii)	What are the obstacles to achieve an efficient allocation of resources in a market		
	economy?	(04	marks)
(iii)	Define pure public goods, merit goods, common resources and natural monopolies.	(04	marks
(iv)	Explain why taxes are necessary for a country and briefly outline the desirable properties of a good tax.	(04	marks
(v)	What is meant by the 'primary balance' of the government budget? Why is it considered to be important to have a surplus in the primary balance?	•	marks

- 7 (i) Improve efficiency in resource allocation (inefficiency occurs due to externalities, provision of merit goods and public goods)
  - Ensure fair distribution of income
  - Achieve macroeconomic stability
  - Improve economic growth and sustainable development
  - Establish the legal framework for efficiently functioning market system (enforcement of law and contracts)
  - Promote infrastructure development
  - Regulations to ensure competition

# (01 mark each for any four functions; total marks 04)

- (ii)- Non allocation or under-allocation of resources to public goods and quasi-public goods
  - Externalities in production and consumption
  - Over-utilization of common resources
  - Income inequality
  - Market power
  - Factor immobility
  - Information asymmetry
  - Missing markets

#### (01 mark each for any four reasons; total marks 04)

- (iii)- Pure public goods are non-excludable and non-rival in consumption (01 mark)
  - Merit goods are those goods and services consumption and production of which generates positive externalities. Therefore, social benefits of consumption exceeds private benefits.
  - A common resource is rival and non-excludable. It is rival because its use by one person decreases the quantity available to someone else. (01 mark)

- In a natural monopoly, economies of scale exist over the entire range of output for which there is a demand. The firm which is already in operation has an overwhelming advantage over potential competitors. (01 mark)
- (iv) Why taxes are necessary?
  - Raising revenue to pay for government expenditure
  - The correction of market failures:
    - Tax monopoly profits
    - Finance provision of public goods and merit goods
    - Discourage the consumption of demerit goods
    - Alter the distribution of income to reduce inequalities in income and wealth
  - Keynesian economic management (discretionary fiscal policy)
    - Controlling the level of aggregate demand to achieve the objectives full employment and stable economic growth, without an excessive inflationary cost
  - Mitigation of balance of payments difficulties
  - Protection of infant industries

(01 mark each for any two reasons; total marks 02)

#### Desirable properties of a good tax:

- Equity
- Economy
- Certainty
- Efficiency
- Flexibility
- Simplicity
- Convenience

# (01 mark each for any two reasons; total marks 02)

- (v) The primary balance of the government budget is the difference between total government revenue including grants and total government expenditure less interest payments. Alternatively, it can be defined as the difference between overall budget deficit and the interest payments. (02 marks)
  - The primary budget balance, defined as the budget balance net of interest payments, is a key determinant of government debt dynamics. Stabilising the government debt-to- GDP ratio and subsequently putting it on a declining path towards the reference value requires a sufficiently large primary surplus to be generated over an extended period of time if the interest rate-growth differential

is positive, as conventionally assumed.

- primary deficit shows the borrowing requirements of the government including interest payment for meeting expenditure. Thus, if primary deficit is zero, then fiscal deficit is equal to interest payment. Then it is not adding to the existing loan.
- Primary balance is generally used as a basic measure of fiscal irresponsibility. It can be said to provide an indicator of current fiscal effort, since interest payments are predetermined by the size of previous deficits. For countries with a large outstanding public debt relative to GDP, achieving a primary surplus is normally viewed as important, being usually necessary (though not sufficient) for a reduction in the debt/GDP ratio.

(01 mark each for any two reasons; total marks 02)

#### 08

- 8. (i) Name four main items each for exports and imports of Sri Lanka.
- (04 marks)
- (ii) What is 'competitive advantage'? What are the sources of competitive advantage? (04 marks)
- (iii) A summary of transactions of the Balance of Payments of a hypothetical economy is given in the Table below. (All figures are in Rs. billion)

Item	Value	Item	Value
Exports of goods	1500	Government capital transfers (net)	120
Imports of goods	1300	Private capital transfers (net)	80
Exports of services	500	Net direct investments	350
Imports of services	400	Net portfolio investments	150
Investment income receipts	800	Net other investments	120
Investment income payments	600	Reserve assets	160
Net current transfers	100	Errors and omissions	20

Calculate the following using above data.

(a) The Balance of Trade

(02 marks)

(b) The Balance of Current Account

(02 marks)

(c) The Balance of Financial Account

(02 marks)

(d) Net Exports

- (02 marks)
- (iv) Explain the reasons for the sharp depreciation of the Sri Lankan rupee relative to the American dollar during the latter part of 2018.

(04 marks)

8.	(i)	<b>Exports</b>

- Textiles and Garments

- Tea

- Rubber products

- Petroleum products

- Spices

(0.5 marks for each export item; total of 02 marks)

**Imports** 

- Fuel

- Textiles

- Building materials

- Machinery and Equipment

- Vehicles

(0.5 marks for each import item; total of 02 marks)

(ii) - Competitive advantage is the leverage that a business has over its competitors. This can be gained by offering clients better and greater value. A competitive advantage exists when the firm is able to deliver the same benefits as competitors but at a lower cost (cost advantage), or deliver greater benefits and service than its competitors (differentiation advantage) that justifies higher prices.

This concept can be applied to an individual firm as well as to an entire nation. Competitive advantage rests on the notion that cheap labor is ubiquitous and natural resources are not necessary for a good economy.

(02 marks)

- Sources of Competitive Advantage:

Cost advantage sources:

- High levels of productivity
- High capacity utilization
- Use of bargaining power to negotiate the lowest cost prices for production inputs
- Effective use of technology in the production process
- Access to most effective distributional channels

Differentiation sources:

- Superior quality products
- Branding (strong customer recognition & desire; brand loyalty)
- Innovations
- Products and intellectual property
- Consistent promotional support often dominated by advertising, sponsorship

(01 mark each for any two sources; total marks 02)

- (b) Balance of Current Account = Trade balance + Service Account Balance +

  Primary Income Account Balance + Secondary Income Account

  Balance (01 mark)

  Balance of Current Account = 200 + (500 400) + (800 600) + 100 = 600

  (01 mark)
- (c) Balance of Financial Account = Net Direct Investment + Net Portfolio Investment + Net Other Investments + Reserve Assets

(01 mark)

Balance of Financial Account = 350+150 + 120+160 = Rs.780 billion (01 mark)

- (d) Net Exports = (Exports of Goods Imports of Goods) + (Exports of services –

  Imports of Services) (01 mark)

  Net Exports = (1500-1300) + (500-400) = 200 + 100 = Rs. 300 billion

  (01 mark)
- (iv) The nominal exchange rate between US dollar and Sri Lankan rupee which remained relatively stable during the first four months of 2018, came under significant pressure thereafter, particularly during the latter part of 2018.
  - Despite the Central Bank's intervention in the foreign exchange market mainly aimed at an orderly adjustment, the currency depreciated by 19.6 percent by end-December 2018 from a year earlier. Both internal and external factors have contributed to the sharp depreciation of Sri Lankan currency.

(01 mark)

# **Internal factors:**

- Slow growth of export earnings:
- Rapid increase in import expenditure (non essential imports such as vehicles, gold)
- Sharp increase in Sri Lanka's foreign debt service payments with higher capital repayments and interest payments
- Unfavourable political developments especially during the last three months of the year
- Lack of dollar conversions by exporters
- The negative sentiment created through the delayed 6th tranche of EFF from the IMF.
- Inadequate official reserves

#### **External Factors:**

- Four consecutive interest rates hikes by the Federal reserve Bank, USA which resulted in severe capital flight together with high importer demand for US dollars
- Increase in oil prices
- Outflow of capital

(01 mark each for any three causes; Total marks 04)

09				S <sub>EA</sub>
9.	(i)	What are the conditions necessary for economic growth to translate into improvements in the quality of life?	(05	marks)
	(ii)	What is meant by 'social protection'? Name three major components of the social protection programme in Sri Lanka.	(05	marks)
	(iii)	"Gini coefficient is a useful summary statistic for measuring income inequality, but it does not convey as much information as Lorenz curves". Explain.	(05	marks
	(iv)	What are the reasons for the existence of a large gender gap in the labour force participation rate in Sri Lanka?	(05	marks

- 9. (i) Economic growth is simply the expansion of physical volume of goods and services produced within the country over time and it does not cover the qualitative changes in the society which are relevant to the improvements in the quality of life. A better quality of life calls for higher economic growth but it has to be people-centered rather than a goods-oriented.
  - Many countries which have achieved economic growth have failed to deliver the results in terms of improvements in the quality of life. It is not sufficient to view human development simply in terms of increased spending on health, education and related activities as reflected in economic growth data. Growth needs to focus on expanding peoples' capabilities. Development means expanding capabilities. The focus should be on what are people capable of doing or being? For example, can people read or write? Not, how much being spent on primary education? Are people living longer? Not, what is expenditure on health?
  - Improvements in the quality of life involves reducing deprivation or broadening choice. Deprivation represents a multidimensional view of poverty that includes hunger, illiteracy, illness and poor health, powerlessness, voicelessness, insecurity, humiliation, and a lack of access to basic infrastructure.
  - Economic growth to be more meaningful in terms of improvements in the quality of life, it has to ensure the reduction of unemployment, inequity and poverty through the growth process
  - The growth process needs to take greater note of the role of women, both on grounds of equity, because they bear a disproportionate share of poverty, and also on the grounds of growth because they play a vital role in productive activities. What is need is a gender sensitive culture. This involves changing traditional perception of women—subordination of women.

- Growth needs to be inclusive in order to improve the quality of life of people. Inclusive growth encompasses both the pace and pattern of growth which are critical in providing opportunities for many who are excluded from the growth process, so that all members of society could contribute to and benefit from growth.
- Economic growth should be in conformity with sustainable development in order to improve the quality of life. Increased income must come about in a way that does not reduce the ability of the environment to keep providing at least the same level of income into the future.
- With economic growth political change is seen as increasingly important for development. Political and civil liberties go hand in hand with improvements in the quality of life.

# (01 mark each for any five reasons; total marks 05)

- (ii) Social protection is concerned with protecting and helping those who are poor and vulnerable, such as children, women, older people, people living with disabilities, the displaced, the unemployed, and the sick. (02 marks)
  - Income Support programmes
  - Samurdhi income transfer to poor
    - Income support for disabled soldiers and families of service personnel who died in the conflict
    - Assistance for persons displaced by the conflict
  - Monthly allowance for disabled
  - Elderly allowance (Monthly)
  - Public assistance monthly allowance
  - Assistance for people with incapacitating illness who are unable to work
  - Emergency assistance to people affected by natural disasters such as droughts, floods, cyclones etc.
  - Nutritional Support programme
  - Thriposha national supplementary food programme (2 take-Home packs of Thriposha per month)
  - Nutrition Allowance (Poshana Malla food stamp Rs. 2000 per month)
  - Fresh Milk for nursery children

# (01 mark each for any three items; total marks 03)

(iii)- Gini coefficient is the most widely cited measure of inequality; it measures the extent to which the distribution within an economy deviates from a perfectly equal distribution. The index is computed as the ratio of the area between the two curves

(Lorenz curve and 45-degree line) to the area beneath the 45-degree line.

(01 mark)

- Lorenze curve is one of the simplest representations of inequality. The Lorenz curve reveals the percentage of income owned by x per cent of the population. It is usually shown in relation to a 45-degree line that represents perfect equality where each x percentile of the population receives the same x percentile of income. Thus the farther the Lorenz curve is in relation to the 45-degree line, the more unequal the distribution of income.
- Gini coefficient does not provide information on the disparity of distribution among different income groups. It gives only an overall picture about the degree of disparity in the entire population. In contrast, Lorenz curve provides detailed information about the variations of disparities among different groups.

(02 marks)

- Economies with similar incomes and Gini coefficients can still have very different income distributions. This is because the Lorenz curves can have different shapes and yet still yield the same Gini coefficient. As an extreme example, an economy where half the households have no income, and the other half share income equally has a Gini coefficient of 0.5. But an economy with complete income equality, except for one wealthy household that has half the total income, also has a Gini coefficient of 0.5. Consequently, as a basis for ranking the differences in income inequality between countries, the Gini index could be misleading. (01 mark)

(Total marks 05)

- (iv) Sri Lanka has been a trendsetter in the region in advancing gender parity in education and health. Yet, this has not been reflected in more active female labor force participation (FLFP), which is low compared to its emerging market peers and even some low-income developing countries in the region. There are several reasons for the large gender gap in the labour force participation rate.
  - Women have been compelled to opt out from the labour force and take up household Responsibilities (caring children, old parents).
  - Household roles and responsibilities, which fall disproportionately on women
  - A human capital mismatch, whereby women are not acquiring the proper skills demanded by job markets

- Gender discrimination in job search, hiring, and promotion processes
- The social norms governing women's responsibilities for child care, elder care, and housework—and that inhibit women from joining labor markets, obtaining employment
- Gender norms that restrict women's mobility more than men's—especially lack of social support for women commuting to work—and that prevent women from accessing safe and comfortable transportation to work
- Gender wage gap (on average women paid less than men even when they share the same productive characteristics) in the labour market. This would discourage women who seek an employment opportunity.
- Traditional attitudes: There is deep-rooted social norms in the country that women are to take up household responsibilities, while men are engaged in earning. Parents' greater encouragement of sons' rather than daughters' pursuit of careers (especially in the private sector) hinders the opportunities for women to attain economic freedom.
- Inability is find employment after break.
- Difficulties in adhering to work time slots.

(01 mark each for any five reasons, total marks 05)

10			
10. (i)	Briefly discuss Sri Lanka's performance in recent years with respect to the achievement of economic growth and public debt sustainability.	(05	marks
(ii)	What factors have prevented Sri Lanka from progressing towards high income country status?	(05	marks
(iii)	"Sri Lanka has been listed as one of the countries most vulnerable to climate change." Briefly describe the possible impact of climate-induced disasters on the country's GDP and public finances.	(05	marks
(iv)	Briefly explain the key features of China's 'Belt and Road Initiative (BRI)' and its economic implications for Sri Lanka.	(05	marks

# 10. (i) Growth Performance:

- In recent years, the performance in terms of economic growth has fallen below Expectations. Rate of economic growth in the last four years is given below:

Rate of growth in 2018 was the lowest recorded since 2001.

	<u>2018</u>	<u>2017</u>	<u>2016</u>	2015
(01 mark)	3.2%	3.4%	4.5%	5.0%

- Delays in addressing barriers to growth and introducing growth enhanced reforms in the areas of export promotion, attraction of FDI, reducing budget deficit and debt levels, reforming factor markets, strengthening public administration, and ensuring the rule of law have largely contributed to Sri Lanka's economic stagnation in the recent years.
- Investor sentiment has remained disappointingly flat due to inconsistent and unpredictable policies introduced from time to time. The reason mostly is political.
- Policy decisions of the coalition government have been laboriously slow moving, all too often sending mixed signals even when a decision appears to have been arrived at.
- Outward dissent has also been a recurring problem with a spate of strikes and demonstrations. The number of man days lost as a consequence of strikes in the private sector has risen to an annual average of 80,000 days during 2015-2018 compared to a figure of 50,000 during 2012-14.
- Sri Lankan economy has become more vulnerable to climatic related shocks that have led to poor agricultural harvests, lost livelihoods, and disaster related catastrophes.

(01 mark each for any three explanations; total marks 03)

#### Public debt sustainability:

- Debt portfolio carries significant risks.
- Sri Lanka's central government debt level (estimated at 83.0 percent of GDP, 2018) is high and the debt portfolio has deteriorated in several indicators in the recent past.

(01 mark)

- The central governments' foreign-currency denominated external debt is estimated at

- 51.3 percent of its total debt, and the total debt service was estimated at 88 percent of revenue in 2018. Sri Lanka's gross financing needs are large relative to other emerging economies. (01 mark)
- Moreover, as the country approaches upper middle-income country status, Vit has been borrowing on more commercial terms with increased cost and risk. VAs a result, the interest rate risk on foreign currency debt has risen with the Vshare of floating-rate debt in the total outstanding debt rising. The average time Vto maturity (ATM) has declined while average interest rates have increased. (01 mark)
- Moreover, adequacy of reserve cover of foreign currency commercial debt has V deteriorated. (01 mark)
- SOE debt is a key fiscal risk. Based on available data, by end 2017, total debt of six large SOEs/entities (excluding the financial institutions) was equivalent to 7.1 percent of GDP. While SOE financial institutions borrow both locally and overseas based on the strength of their respective balance sheets, non-financial SOEs receive financing predominantly from the domestic banking sector. (01 mark)
- Sri Lanka's debt management has not evolved sufficiently for many decades to deal with emerging challenges. Costs and risks of the portfolio have been evolving along with market access, market development, use of new instruments and increased vulnerabilities in the global environment. However, the country's debt management function and structures have not kept pace with these new challenges.

(01 mark)

(01 mark each for any two explanations; total marks 02)

- (ii) Export performance has been weak. Sri Lanka exports are still concentrated on a few, mainly low technology products. The strong anti-export bias in the economy is a result of often uncompetitive exchange rates and high effective protection rates.
  - Public finances have been a constraint on growth: A steady decline in government revenue generation over time has resulted in a steady increase in public debt accumulation, particularly high risk non-concessional foreign borrowing.
  - Delays in addressing barriers to growth and introducing growth enhanced reforms in the areas of export promotion, attraction of FDI, reducing budget deficit and debt levels, reforming factor markets, strengthening public administration, and ensuring the rule of law.

- Growth also hampered by regulatory barriers: These barriers constraint both foreign and domestic investors.
- Skills profiles of the current workforce not being aligned with the needs of a globally integrated economy.
- Inadequate infrastructure in terms of access, quality and pricing of energy, transport sand telecommunication, and access to finance especially for Sri Lanka's SME enterprises
- The fragile financial standing and the poor quality of public service delivery of SOEs are additional constraints to productivity and growth.
- Inconsistency and uncertainty in long term economic policies
  (01 mark each for any five factors; total marks 05)
- (iii) Meteorological data indicate a gradual change in climate parameters across Sri Lanka. hese include rising air temperature, erotic changes in annual pattern of precipitation, a change in the spatial distribution of rainfall, and rising sea levels. The socioeconomic impacts of these changes in climate on crop yields, disease and labour productivity amongst others can be far reaching.
  - Sri Lanka has experienced exceptionally severe weather events since late 2016. Nationwide shortage of rainfall since late 2016, far below the average, had led to a historical drought across the country. The monsoon in May 2017then triggered devastating floods and landslides in southwest regions damaging more than 9000 houses. More than two million people were affected by these two severe weather events.
  - The weather calamities suppressed economic growth, raised inflation, and worsened trade deficit. With two rice cultivation cycles disrupted since December 2016, the domestic rice production was the lowest in the last 10 years. Affected also by the 2017 floods, agriculture GDP contracted by 3.1% in 2017 with adverse consequences on overall growth and tax revenue.
  - The drought caused a shift in power generation from hydro to thermal sources raising oil imports by US \$560 million. The cost for higher thermal power generation caused CEB to record a financial loss of Rs. 34 billion.
  - Sri Lanka experienced a deceleration in its real GDP growth in 2017, as the country's

agricultural economy was struck by the then prevailing weather conditions. The Economist, in an article published in the same year, linked the country's economic downtrend partially to climate change, attributing it to floods, landslides and droughts the island struggled against. Sri Lanka's real GDP, which maintained an average 4.7% from 2014-2016, fell steeply to 3.9% during the first half of 2017 and closed at 3.1% towards the latter part of the year.

 Post-disaster relief efforts result in significant fiscal costs. Aside from indirect costs, immediate recovery and humanitarian assistance include: targeted income support for severely affected households with food vouchers, rehabilitation for damaged property, e.g., construction of new houses for landslide victims, and rehabilitation of road and irrigation systems.

# (02 marks each for any three brief descriptions; total marks 05)

(iv) - Belt and Road Initiative (BRI) is China's attempt at rebuilding the network of ancient Silk Route, which was a trade route connecting China to Europe through both land and sea routes. One arm of the BRI, 'Silk Road Economic Belt' (the Belt) extends overland from China to Europe through Central Asia. The other arm '21st Century Maritime Silk Road' (the Road), links China to South East Asia, The Middle East, East Africa, and Europe along the Mediterranean, the Indian, Atlantic and Pacific oceans connecting over 20 countries.
 (02 marks)

# **Economic implications:**

- Sri Lanka has been an important stop on the Maritime Silk Road since ancient times. It lies along one of world busiest trade routes, connecting Asia with Europe, and plays key part in China's BRI. The BRI's impact can be framed in broad terms like trade, investment, tourism, and other flows between China and Sri Lanka.
- Under China's BRI, the Sri Lankan Government has undertaken the development of two large-scale capital projects: Hambantota Port and Colombo Port City.
   China Merchant Port Holdings (CMPH) and the Sri Lankan government plan to develop an economic zone in the port, with investment projects currently under discussion.

Colombo Port City. The ongoing project involves developing an urban city center on reclaimed land of 269 hectares adjacent to the Colombo Harbor. When completed, the city would accommodate residential, retail, financial, and commercial activities.

- China has emerged to become Sri Lanka's second largest trading partner after India.

The FTA between Sri Lanka and China is expected to boost bilateral trade.

- The development of an Industrial Zone in Hambantota is likely to attract Chinese foreign investment, boost jobs, tax revenues and the local economic base contribution to expansion of bilateral and regional trade.
- BRI has created significant opportunities for countries and companies to participate in a range of projects, especially those involved in construction or infrastructural work.
- The BRI can also support Sri Lanka's efforts to become an economic hub. The BRI can help Sri Lanka's aspirations of becoming a major regional logistics and trading and even a production hub.
- The BRI can also help Sri Lanka meet another of its aspirations to develop and join the Global Value Chains (GVCs).
- There are also clear gains for tourism from participation in the BRI. Since 2010, Chinese nationals have made up a significant portion of the overall tourist population visiting Sri Lanka.
- There are other potential spillovers from BRI in the areas such as maritime resources, technology and knowledge transfer and employment opportunities.

(01 mark each for any three economic implications; total marks 03)