SFG – FRC for CSE 2024 | Eco #4 – Solutions | ForumIAS

Q.1)

Exp) Option a is the correct answer

National income is a broader national level economic measure than is personal income. National income includes payments to individuals (income from wages and salaries, and other income), plus payments to government (taxes), plus retained income from the corporate sector (depreciation, undistributed profits), less adjustments (subsidies, government and consumer interest, and statistical discrepancy).

Personal Income = National income – undistributed profits of a corporation – payments for social security provisions – corporate tax + government transfer payments + Business transfer payments + Net interest paid by the government.

Disposable personal income measures the after-tax income of persons and nonprofit corporations. It is calculated by subtracting personal tax and nontax payments from personal income. In 1999, disposable personal income represented approximately 72 percent of gross domestic product (i.e., total U.S. output).

Q.5)

Exp) Option a is the correct answer.

Option a is not correct: Real GDP is GDP **evaluated at the market prices of some base year**. For example, if 1990 were chosen as the base year, then real GDP for 1995 is calculated by taking the quantities of all goods and services purchased in 1995 and multiplying them by their 1990 prices.

Option b is correct: Potential GDP refers to the maximum level of real GDP that an economy can sustainably produce when all available resources are fully utilized.

Option c is correct: Nominal GDP is the GDP given in current prices, without adjusting for inflation. It represents the value of goods and services produced in an economy at current market prices.

Option d is correct: Real GDP per capita is obtained by dividing the real GDP of an economy by its population, giving an indication of the average economic output per person.

Q.6)

Exp) Option a is the correct answer.

An economic recession is often defined as a decline of real gross domestic product (GDP) for two consecutive quarters. On the contrary, an economic depression is typically understood as an extreme downturn in economic activity lasting several years. A depression is a more severe recession.

Statement 1 is incorrect: There is a general fall in demand as economic activities takes a downturn during recession. Thus, there is no increase in demand during recession. Similarly, during depression, an extremely low aggregate demand in the economy causes activities to decelerate.

Statement 2 is incorrect: Inflation remains lower and shows further signs of falling during recession. The inflation is comparatively much lower during the times of depression.

Statement 3 is incorrect: Employment rate falls/ unemployment rate grows during both recession and depression. The employment avenues start shrinking forcing the unemployment rate to grow fast during these times.

Statement 4 is correct: Depressions tend to be much more severe, and they tend to last for a much longer period than recession.

Q.8)

Exp) Option a is the correct answer.

During the current financial year, retail core inflation (inflation excluding ‘food and beverages’ and ‘fuel and light’ – the transitory components of the index) has shown a rising trend.

Statement 1 is correct: Conventionally, core inflation is calculated by excluding ‘food and beverages’ and ‘fuel and light’ groups from overall inflation. While in CPI-C, major fuel items such as ‘petrol for vehicle’ and ‘diesel for vehicle’, which have relatively large weights, are not included in ‘fuel and light’. A ‘refined’

core inflation was constructed to address this anomaly by excluding main fuel items viz., 'petrol for vehicle', 'diesel for vehicle' and 'lubricants and other fuels for vehicles', in addition to 'food and beverages' and 'fuel and light' from the headline retail inflation.
Statement 2 is incorrect: Since June 2020, refined core inflation has been much below the conventional core inflation, indicating the impact of inflation in fuel items in the conventional core inflation measure. Conventional way of calculating retail core inflation, instead of excluding the volatile fuel items from core inflation, continue to include volatile fuel items in core inflation. As a result, the fuel price rise continues to impact core inflation

Q.9)
Exp) Option b is the correct answer.
Price elasticity measures how much the supply or demand of a product changes based on a given change in price.
Statement a is incorrect: The **maximum amount** a consumer is **willing to pay** for an **additional unit** of a product is referred to as the **Marginal Benefit** and not Price Elasticity of Demand. It is the measure of how the cost or value of a product changes. Companies need to take both concepts into consideration when manufacturing, pricing, and marketing a product.
Statement b is correct: Price elasticity of Demand measures **how much** the **demand** of a **product changes** based on a given **change in price**. Generally, the demand for goods that are easily replaceable is very volatile with respect to prices. A small increase in the price of such goods (termed as elastic goods) reduces their demand and vice versa.
Statement c is incorrect: The **change in demand** for a good or service caused by a **change in a consumer's purchasing power** resulting from a **change in real income** is termed as I**ncome Effect**, not the Price Elasticity of Demand.
This change can be the result of a rise in wages etc., or because existing income is freed up by a decrease or increase in the price of a good that money is being spent on.
Statement d is incorrect: In economics, the **practice** of **setting the price** of a product to **equal** the **extra cost of producing an extra unit** of output is called **Marginal Cost Pricing**, and not Price Elasticity of Demand. By this policy, a producer charges, for each product unit sold, only the addition to total cost resulting from materials and direct labour.

Q.10)
Exp) Option c is correct.
The Gross Domestic Product (GDP) deflator is a measure of general price inflation. **It is calculated by dividing nominal GDP by real GDP** and then multiplying by 100. The GDP deflator also includes the prices of investment goods, government services and exports, and excludes the price of imports.
Statement 1 is correct: GDP deflator is a much broader and comprehensive measure compared to CPI and WPI. Since the deflator covers the entire range of goods and services produced in the economy – as against the limited commodity baskets for the wholesale or consumer price indices – it is seen as a more comprehensive measure of inflation.
Statement 2 is correct: GDP deflator is available only on a quarterly basis along with GDP estimates, whereas CPI and WPI data are released every month. While WPI and CPI are available on a monthly basis, deflator comes with a lag (yearly or quarterly, after quarterly GDP data is released**).** Hence, monthly change in inflation cannot be tracked using GDP deflator, limiting its usefulness.
Statement 3 is correct: GDP deflator reflects the prices of **all domestically produced goods and services** in the economy whereas, other measures like CPI and WPI are based on a limited basket of goods and

services, thereby not representing the entire economy. Changes in consumption patterns or introduction of goods and services are automatically reflected in the GDP deflator.

Q.14)

Exp) Option b is correct.

Option b is correct: Due to **lag in supply, and inadequate price discovery mechanism**, the farmers take **decisions on quantities** of agricultural commodities to produce **depending on the prices of last season, thus creating excess or scarcity that harms them** instead of profiting them.

The economic survey 2020 described 'cobweb theory' to explain the price rise anomaly. "The farmers are caught in the cobweb phenomenon when they base their sowing decisions on prices witnessed in the previous marketing period,".

It means if a farmer observes a higher price for a specific crop for a year, he would opt to produce more of it the next year. But if more of them think like him, production exceeds demand and price falls leading to another round of low productivity.

Q.17)

Exp) Option c is the correct answer.

The term depreciation refers to an accounting method used to allocate the cost of a tangible or physical asset over its useful life. Depreciation represents how much of an asset's value has been used. It allows companies to earn revenue from the assets they own by paying for them over a certain period of time.

Statement 1 is correct: The monetary value of an asset decreases over time due to use, wear and tear or obsolescence. This decrease is measured as depreciation. Depreciation is an **annual allowance for wear and tear of a capital good**. In other words, it is the cost of the good divided by number of years of its useful life. Assets such as machinery and equipment are expensive. Instead of realizing the entire cost of an asset in year one, companies can use depreciation to spread out the cost and match depreciation expenses to related revenues in the same reporting period. This allows a company to write off an asset's value over a period of time, notably its useful life.

Statement 2 is correct: Depreciation of fixed capital assets refers to **normal wear and tear and foreseen obsolescence.** Depreciation is also called consumption of fixed capital. Loss of fixed assets happen on account of normal wear and tear, normal rate of accidental damages and expected obsolescence. Depreciation **does not take into account unexpected or sudden destruction or disuse of capital as can happen with accidents**, natural calamities or other such extraneous circumstances.

Q.19)

Exp) Option d is the correct answer.

Gross domestic product (GDP) is the value of the goods and services produced by the nation's economy less the value of the goods and services used up in production. GDP is also equal to the sum of personal consumption expenditures, gross private domestic investment, net exports of goods and services, and government consumption expenditures and gross investment.

Statement 1 is correct: GDP does not provide information about the distribution of income, which bears importantly on the welfare of individuals within an economy. GDP per capita is only an average. When GDP per capita rises by 5%, it could mean that GDP for everyone in the society has risen by 5% or that the GDP of some groups has risen by more while the GDP of others has risen by less—or even declined.

Statement 2 is correct: GDP does not factor in the increases in technology that improves the well-being. For example, the internet has made it easier for people to arrange for travel directly instead of going through a travel agent—these personal efforts to book travel are not counted in GDP but the services of a travel agent would be counted, leading GDP growth to understate the increase in welfare.

Statement 3 is correct: Another shortcoming of GDP as a measure of economic well-being is **GDP's exclusion of non-market activities that create welfare for households.** Because GDP uses market prices to value goods and services, it excludes the value of almost all activity that takes place outside markets. Child care provided in day-care centers is part of GDP, whereas child care by parents at home is not. Volunteer work also contributes to the well-being of those in society, but GDP does not reflect these contributions.

Statement 4 is correct: Externalities refer to the benefits (or harms) a firm or an individual causes to another for which they are not paid (or penalised). Externalities do not have any market in which they can be bought and sold thus they are not part of GDP calculation. For example, let us suppose there is an oil refinery which refines crude petroleum and sells it in the market. We can estimate the value added of the refinery. The value added of the refinery will be counted as part of the GDP of the economy. But in carrying out the production the refinery may also be polluting the nearby river. This may cause harm to the people who use the water of the river. Hence their well-being will fall.

Q.21)

Exp) Option a is the correct answer.

Statement 1 is correct: Deflation means prices are falling and the inflation rate is in the negative, while disinflation means a slowdown in the rate of inflation while still remaining in the positive. Disinflation occurs more commonly than deflation. Statement 2 is incorrect: During times of deflation, since the money supply is tightened, there is an increase in the value of money, which increases the real value of debt. Since inflation is positive during disinflation, the value of money decreases. Statement 3 is incorrect: During disinflation Stocks can, and often do, perform well when the bonds are likely to deliver above-average returns in a disinflationary scenario since it makes central banks less likely to raise interest rates and more likely to reduce them. Whereas deflation is an extremely destructive condition for the economy and financial markets. During periods of deflation, stock prices are likely to perform poorly.

Q.24)

Exp) Option b is the correct answer.

The Genuine Progress Indicator (GPI) is a metric that has been suggested to replace, or supplement, gross domestic product as a measure of economic welfare. Statement 1 is correct: A Genuine Progress Indicator (GPI) is a metric used to measure the economic growth of a country. The GPI indicator takes everything the GDP uses into account but adds other figures that represent the cost of the negative effects related to economic activity, such as the cost of crime, cost of ozone depletion, and cost of resource depletion, among others. Statement 2 is incorrect: The GPI per capita can be greater than the GDP per capita. The GPI measures economic welfare, environmental sustainability, and social equity, while the GDP only measures the economic output of a country. Therefore, the GPI could be greater than the GDP if a country is making progress in areas such as environmental protection and social equity while its economic output is not necessarily increasing. However, usually (not always) GPI is lesser than GDP due to negative externalities.

Q.26)

Exp) Option c is the correct answer.

Statement a is correct. Potential gross domestic product (GDP) is the level of output which any economy can produce at a constant inflation rate.

Statement b is correct. The GDP gap is defined as the difference between potential GDP and real GDP.

Statement c is incorrect. Apart from inflation and recession, capital stock, the potential labour force depending on demographic factors and participation rates, the nonaccelerating inflation rate of unemployment, and the level of labour efficiency also help determine this potential output.

Statement d is correct. Higher level of capital formation can lead to increase in potential GDP

Q.27)

Exp) Option b is the correct answer.

Gross national income (GNI) is an alternative to gross domestic product (GDP) as a measure of wealth. It calculates income instead of output. GNI can be calculated by adding income from foreign sources to gross domestic product.

Option a is incorrect - GNI is the total income received by the country from its residents and businesses regardless of whether they are located in the country or abroad. **Gross National Product (GNP)** includes the **income of all of a country's residents** and businesses whether it flows back to the country or is spent abroad.

Option b is correct - The World Bank assigns the world's economies to four income groups—low, lower-middle, upper-middle, and high-income countries. **The classifications are updated each year on July 1 and are based on GNI per capita in current USD (using the Atlas method exchange rates) of the previous year**. As of 1 July 2020, low-income economies are defined as those with a GNI per capita of $1,045 or less in 2020; lower middle-income economies between $1,046 and $4095; upper middle-income economies between $ 4095 and $12,375; high-income economies as $12,376 or more.

Option c is incorrect - GNI can be much higher than GDP if a country receives a large amount of foreign aid, as is the case with East Timor. Conversely, it can be much lower if foreigners control a large proportion of a country's production, as is the case with Ireland. For nations, like the US, there is little difference between GDP and GNI, since the difference between income received versus payments made to the rest of the world does not tend to be significant.

Option d is incorrect- Product taxes that are not already accounted for in GDP are added to GNI, while subsidies are subtracted. To convert a nation's GDP to GNI, three terms need to be added to the former: 1) Foreign income paid to resident employees), 2) Foreign income paid to residential property owners and investors, and 3) net taxes minus subsidies receivable on production and imports

Q.29)

Exp) Option a is the correct answer.

Option a is correct: An inflationary gap measures the difference between the current real GDP and the GDP of an economy operating at full employment. An inflationary gap exists when the demand for goods and services exceeds production due to higher levels of employment, increased trade activities, or elevated government expenditure. The real GDP can exceed the potential GDP, resulting in an inflationary gap. The inflationary gap represents the point in the business cycle when the economy expands as consumers purchase more goods and services. As demand increases but production lags, prices rise to restore market equilibrium.

Option b is incorrect: **Stagflation** is an economic cycle characterized by **slow growth and a high unemployment rate** accompanied by inflation. Economic policymakers find this combination particularly difficult to handle, as attempting to correct one of the factors can exacerbate another.

Option c is incorrect: The GDP (gross domestic product) price deflator, also known as the **GDP deflator** or the implicit price deflator, **measures the changes in prices for all the goods and services produced in an economy.** Using the GDP price deflator helps economists compare the levels of real economic activity from one year to another.

Option d is incorrect: The **Consumer Price Index** measures the overall **change in consumer prices based on a representative basket of goods and services over time**. The CPI is the most widely used measure of inflation, closely followed by policymakers, financial markets, businesses, and consumers.

Q.33)

Exp) Option d is the correct answer.

Option 1 is incorrect: An increase in Inventory (goods/ raw materials stocked for production/ sale later) is considered as a form of Capital Formation, i.e. Investment by a firm. Hence it will be included under the 'I' head of the equation.

Option 2 is incorrect: Expenditure on various services by a household (example - paying plumbers and electricians, buying movie tickets, booking cabs, etc) is one of the core economic activities in a nation. It is included under the 'C' head of the equation.

Option 3 is incorrect: The expenses incurred by the government to provide public good and services like roads (buying materials, hiring labour, etc), free primary education (constructing school buildings, paying salaries to teachers, etc) all would be included under the 'G' head of the equation and hence included in calculation of GDP.

Option 4 is incorrect: When assets such as bonds and shares are procured, it signifies a change in ownership and does not affect the value of goods and services; hence, the transactions are not involved in expense calculation. However, the brokerage paid for the transfer of shares is considered while using the expenditure method.

Option 5 is correct: Transfer Payments are one sided economic transaction where a service or sum of money is provided without any service or monetary consideration in return. For example, donations to charities, international aid to poor war-torn countries, etc. Since these transactions don't create any new value of goods and services, they are not included in the GDP.

Option 6 is incorrect: All imports, whether of agricultural commodities for food security purposes (like edible oil imports) or luxury item imports like gadgets, etc, are included under the head of 'X' in the equation and hence included in the calculation for GDP

Q.37)

Exp) Option c is the correct answer.

The Incremental Capital Output Ratio (ICOR) indicate the **additional unit of capital or investment needed to produce an additional unit of output.**

Option b is *incorrect*. The higher the ICOR, the lower the productivity of capital or the marginal efficiency of capital. Lower capital output ratio shows that low investment is **required to produce an extra unit of output**.. A lower capital output ratio shows that only low level of investment is needed to produce a given output in the economy.

Option d is *incorrect*. A highly efficient industry will have a **lower ICOR.** A higher ICOR value is not preferred because it indicates that the entity's production is inefficient. Lower the ICOR, the better it is. So, a **country with ICOR of 3 is better than a country with ICOR of 5.**

Q.38)

Exp) Option a is the correct answer

Option a is correct: Tax buoyancy refers to the responsiveness of tax revenue growth to changes in GDP or national income of the country. A tax buoyancy greater than 1 signifies that tax revenues grow at a faster rate than the growth in national income.

Tax Buoyancy = Change in tax revenue/ Change in GDP

Option b is incorrect: Tax elasticity (not tax buoyancy) refers to changes in tax revenue in response to changes in tax rates. Tax elasticity is the degree to which the increase in the tax rate causes a change in the tax base.

Option c is incorrect: Tax base is the total value of all of the assets, income, and economic activity that can be taxed by the government. **Tax buoyancy is not related to change in tax revenue due to change in**

tax base. Tax expenditures are government **revenue losses from tax exemptions**, exemptions, deductions, credits and preferential tax rates.

Option d is incorrect: Tax buoyancy is not related to change in tax revenue due to change in administrative efficiency. Usually better administrative efficiency results in better tax revenue collection by the Government.

Q.40)

Exp) Option c is the correct answer

Inflation is an increase in the general price level of goods and services in an economy and normally inflation and unemployment rate share an inverse relationship i.e. lower the inflation higher the unemployment rate.

Option a is incorrect: Cost-push inflation occurs when we experience rising prices due to higher costs of production and higher costs of raw materials. Hence **rise in rate of inflation due to Supply side bottlenecks is cost push inflation**, not reflects the situation of Stagflation.

Option b is incorrect: Shrinkflation refers to the practice of reducing the quantity of a product without altering its price. For instance reducing the number of chips in a packet without altering its price would count as shrinkflation.

Option c is correct: Stagflation is the appearance of **high unemployment along with rising prices (inflation)** in an economy. Stagflation means the combined effects of inflation and stagnation (low growth and high unemployment rate). This is odd as usually inflation and unemployment rate share an inverse relationship i.e. lower the inflation rate, higher the unemployment rate.

Option d is incorrect: The **wage-price spiral** is an economic term that describes the phenomenon of **price increases (inflation) as a result of higher wages.**

Q.53)

Exp) Option c is the correct answer.

Tax rationalization refers to the process of simplifying and streamlining the tax system by reducing the number of tax rates, exemptions, and deductions. The impacts of tax rationalization can be both positive and negative. The possible impact of tax rationalization are as follows:

Statement 1 is correct: Simplifying the tax system can make it easier for taxpayers to understand their tax obligations and comply with them. So, tax rationalization can reduce the incidence of tax evasion and improve revenue collection, which can ultimately benefit the economy.

Statement 2 is incorrect: A simpler tax system can reduce the administrative burden on businesses and individuals, which can lead to increased economic efficiency.

Statement 3 is correct: It can lead to redistribution of the tax burden among different sections of peoples.

Statement 4 is correct: Tax rationalization can cause short-term disruptions to the economy as taxpayers and businesses adjust to the new tax system. This can lead to uncertainty and volatility in the short term, but the long-term benefits may outweigh the short-term costs.

Q.58)

Exp) Option b is the correct answer.

Statement 1 is correct. Gross capital formation refers to the 'aggregate of gross additions to fixed assets (that is fixed capital formation) plus change in stocks of inventories' during the counting period. Fixed asset refers to the construction, machinery and equipment. Gross fixed capital formation (GFCF) is defined as the acquisition of produced assets (including purchases of second-hand assets), including the production of such assets by producers for their own use.

Statement 2 is incorrect. Construction for military purposes (other than construction or alteration of family dwellings for military personnel), acquisition of defence equipment, durable goods in the hands of the households and increase in the stocks of defence materials are excluded from the scope of gross fixed capital formation.

Statement 3 is correct. Gross fixed capital formation (GFCF) includes the acquisition of produced assets including purchases of second-hand assets. It also includes the production of such assets by producers for their own use, minus disposals. However, the expenditure incurred on usual/ routine repair and maintenance is not covered for compilation of capital formation

Q.59)

Exp) Option c is the correct answer.

Statement 1 is correct: Tax avoidance is any legal method used by a taxpayer to minimize the amount of income tax owed. Individual taxpayers and corporations can use forms of tax avoidance to lower their tax bills. Tax credits, deductions, income exclusion, and loopholes are forms of tax avoidance.

Statement 2 is correct: Tax Evasion is an illegal way to minimize tax liability through fraudulent techniques usually by deliberately making a false declaration or no declaration to tax authorities – such as by declaring less income, profits or gains than the amounts actually earned, or by overstating deductions.

Statement 3 is correct: Tax terrorism is a way to terrorise honest taxpayers to pay unreasonable taxes but through legal means. Government of India levied taxes on big corporate houses through retrospective amendment in taxation laws which leads to harassing of tax payer.