

12th Economics Question pattern analysis for Scoring Marks

Dear students this material contains all the book back questions from the 1st lesson to the 12th lesson. The Bold letters which are given in the answers are **Key word which will help you to understand the points in 2Marks, 3 Marks and 5Marks.**

Public Examination question paper skeleton

Part - A contains **20 questions**, No choice all the questions are compulsory,

Part B contain 10 questions from question number 21 to 30, you have to write **7 questions** with the 30th question is compulsory

Part-C contains 10 questions from question number 31 to 40, you have to write **7 questions** with the 40th is compulsory.

Part -D contains 14 questions **either or questions that are 7 questions**, you have to write by choosing either or according to serial number from 41 to 47.

Guidance: complete all the 1 - word questions and answers to the entire lessons

1. Bifurcate 12 lessons into two batches either (I) 1 to 6 or (II) 7 to 12, first complete any one batch questions completely as Part -A, Part-B, Part C and Part (D)
2. then, go ahead Part -A, and Part-B for entire lessons or as you can, at least 3 lesson is necessary.
3. then, proceed to Part -C for entire lessons or as you can but a minimum of 3 lessons is mandatory.
4. for Part -D read lessons 7,8, 9 and 11 to score more marks
(if you prefer to read 1 lesson to 6 lessons as batch 'I' then the above Part-D guidance will help)
5. then go ahead with all the 5 Marks questions pertaining to the entire lessons
6. If you completed the entire book back questions, then proceed in the text book inside questions.

For Part – D questions, read sub-headings and choose diagram-oriented 5-mark questions

ALL THE BEST

12th ECONOMICS – 2022-2023

Chapter. 1. Introduction to Macro Economics

1. The branches of the subject Economics is---
d) micro and macro
2. Who coined the word 'Macro'?
c) Ragnar Frisch
3. Who is regarded as the Father of Modern Macro Economics?
b) J M Keynes
4. Identify the other name for Macro Economics.
b) Income Theory
5. Macroeconomics is a study of -----
d) aggregates
6. Indicate the contribution of J M Keynes to economics.
b) General Theory
7. A steady increase in general price level is termed as -----
c) Inflation
8. Identify the necessity of Economic policies.
d) all the above
9. Indicate the fundamental economic activities of an economy.
c) Production and Consumption
10. An economy consists of
d) All the above
11. Identify the economic system where only private ownership of production exists .
a) Capitalistic Economy
12. Economic system representing equality in distribution is-----
d) Socialism
13. Who is referred to as the 'Father of Capitalism'?
a) Adam Smith
14. The country following Capitalism is
b) America
15. Identify The Father of Socialism.
b) Karl Marx
16. An economic system where the economic activities of a nation are done both by the private and public together is termed as.
d) Mixed Economy
17. Quantity of a commodity accumulated at a point of time is termed as ---
b) Stock
18. Identify the flow of variables
c) income
19. Identify the sectors of a Two Sector Model.
a) Households and Firms
20. The Circular Flow Model represents an Open Economy.
c) Four-Sector Model

2 Marks**21. Define Macro Economics. (May 2022)**

- i. "Macro" is derived from the Greek word
- ii. means large

22. Define the term 'Inflation'.

A study increase in the general price level

23. What is meant by an 'Economy'?

A system by which people earn their living –A.J.Brown.

24. Classify the economies based on the status of development.

1. Developed economies,
2. Developing economies,
3. Under-developed economies and
4. Undeveloped economies.

25. What do you mean by Capitalism?

- i. means of production are privately owned
- ii. market determines the economic activities.

26. Define 'Economic Model'.

explanation of how the economy or part of the economy, works.

27. 'Circular Flow of Income' - Define.

- i. **showing the connection between different sectors** of the economy,
- ii. **Such as firms, households, governments and nations.**

3 marks**28. State the importance of Macro Economics.**

1. Macroeconomics **helps to make meaningful comparisons and analyses of economic indicators**
2. It helps for better **prediction about the future** and to **formulate suitable policies** to avoid economic crises.
3. It provides ample opportunities to use **scientific investigation to understand reality.**

29. Describe the different types of economic systems.

- i. **Capitalist Economy** : Private ownership of means of production.
- ii. **Socialist Economy** : Public ownership of means of production
- iii. **Mixed Economy** : Coexistences of capitalism and socialism

30. Outline the major merits of capitalism.

1. Automatic Working: Without any government intervention, the economy works.
2. Efficient Use of Resources: Resources are put into optimum use.
3. Incentives for Hard work: Hard work is encouraged by incentives.

31. Indicate the demerits of socialism.

- i. Concentration of Power: Only the State takes all major decisions.
- ii. Absence of Incentives: does not provide an incentive for efficiency.
- iii. Limited Freedom of Choice: Consumers do not enjoy the freedom of choice over the consumption

32. Enumerate the features of a mixed economy.

1 Ownership of Means of Production	: Private Ownership and Public Ownership
2 Economic Motive	: Social Welfare and Profit Motive
3 Solution of Central Problems	: Central Planning System and Free Market System
4 Government Role	: Limited Role

33. Distinguish between Capitalism and Globalism.

S. No	Capitalism	Globalism
1	The role of the government is minimum	Market ideology connects the nations.
2	Means of production is privately owned	nation are interconnected and interdependent
3	Adamsmith is the father of Capitalism	The term coined by Manfred D Steger

34. Briefly explain the two-sector circular flow, model.

The outer circle represents real flow and the inner circle represents the monetary flow.

- 1) **Household Sector:** the buyer of goods and services, and the supplier of factors of production
- 2) **Firms Sector:** Generates its revenue by selling goods and services and hires the factors of production.
- 3) **Production and sales are equal;** $Y=C+I$.

35. Discuss the scope of Macro Economics.

- 1. National Income:** Measurement of national income and its composition by sectors are the basic aspects of macroeconomic analysis.
- 2. Inflation:** Inflation refers to a steady increase in the general price level, to estimate the general price level various price index numbers are needed.
- 3. Business Cycle:** The cyclical movements such as boom recession, depression and recovery in the economy are studied by Macroeconomics.
- 4. Poverty and Unemployment:** This is one of the economic paradoxes of rich nations. Macroeconomy gives a clear understanding of the magnitude of poverty and unemployment
- 5. Economic Growth:** The growth and development of an economy and the factors determining them could be understood only through macro analysis.

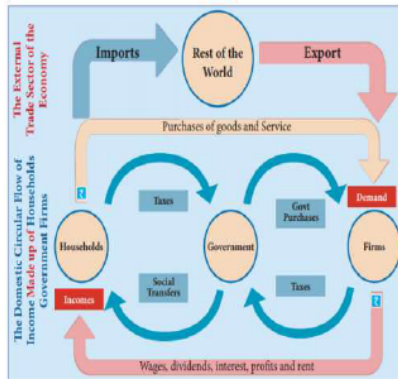
36. Illustrate the functioning of an economy based on its activities. (No need to draw the diagram)

1. In an economy, the fundamental economic activities are **production and consumption**. These two activities are supported by several other activities.
- 2) **The ultimate aim of these activities is to achieve growth.** These activities are influenced by several **economic and non-economic activities**.
- 3) The major **economic activities** include **transportation, banking, advertising, planning, government policy** and others.
- 4) The major **non-economic activities** are **environment, health, education, entertainment, governance, regulations** etc.,
- 5) **external activities** from other economies such as **import, export, international relations, emigration, immigration, foreign investment, foreign exchange earnings**, etc.

37. Compare the feature of Capitalism, Secularism and Mixedism. (Any 5 points)

S.No.	Features	Capitalism	Socialism	Mixedism
1	Ownership of Means of Production	Private Ownership	Public Ownership	Private Ownership and Public Ownership
2	Economic Motive	Profit	Social Welfare	Social Welfare and Profit Motive
3	Solution of Central Problems	Free Market System	Central Planning System	Central Planning System and Free Market System
4	Government Role	Internal Regulation only	Complete Involvement	Limited Role
5	Income Distribution	Unequal	Equal	Less unequal
6	Nature of Enterprise	Private Enterprise	Government Enterprise	Both Private and State Enterprises
7	Economic Freedom	Complete Freedom	Lack of Freedom	Limited Freedom
8	Major Problem	Inequality	Inefficiency	Inequality and Inefficiency

38. Explain four sector model of the economy with a chart



1) In a Four-sector economy, in addition to **households**, **firms** and **government**, a fourth sector namely, the **external** sector is included.

2) The **external sector** comprises **exports and imports**. It is illustrated in the In four-sector economy, expenditure for the entire economy includes **domestic expenditure (C+I+G)** and **net exports (X– M)**.

$$3) \quad Y = C + I + G + (X - M).$$

2. National Income

- Net National product at factor cost is also known as
 a) **National Income** b) Domestic Income c) Per capita Income d) Salary.
- Primary sector is
 a) Industry b) Trade c) **Agriculture** d) Construction.
- National income is measured by using methods.
 a) Two b) **Three** c) Five d) Four
- Income method is measured by summing up of all forms of
 a) Revenue b) Taxes c) expenditure d) **Income**
- Which is the largest figure?
 a) Disposable income b) Personal Income c) NNP d) **GNP**
- Expenditure method is used to estimate national income in
 a) **Construction sector** b) Agricultural Sector c) Service sector d) Banking sector
- Tertiary sector is also called as sector
 a) **Service** b) Income c) Industrial d) Production
- National income is a measure of the performance of an economy.
 a) Industrial b) Agricultural c) **Economic** d) Consumption
- Per capita income is obtained by dividing the National income by
 a) Production b) **Population of a country** c) Expenditure d) GNP
- GNP = + Net factor income from abroad.
 a) NNP b) NDP c) **GDP** d) Personal income
- NNP stands for
 a) **Net National Product** b) National Net product c) National Net Provident d) Net National Provident
- is deducted from gross value to get the net value.
 a) Income b) **Depreciation** c) Expenditure d) Value of final goods
- The financial year in India is
 a) **April 1 to March 31** b) March 1 to April 30 c) March 1 to March 16 d) January 1 to December 31
- When net factor income from abroad is deducted from NNP, the net value is
 a) Gross National Product b) Disposable Income c) **Net Domestic Product** d) Personal Income
- The value of NNP at production point is called
 a) **NNP at factor cost** b) NNP at market cost c) GNP at factor cost d) Per capita income

16. The average income of the country is

- a) Personal Income **b) Per capita income** c) Inflation Rate d) Disposal Income

17. The value of national income adjusted for inflation is called

- a) Inflation Rate b) Disposal Income c) GNP **d) Real national income**

18. What is a flow concept?

- a) Number of shirts b) Total wealth **c) Monthly income** d) Money supply

19. PQLI is the indicator of

- a) Economic growth **b) Economic welfare** c) Economic progress d) Economic development

20. The largest proportion of national income comes from

- a) Private sector** b) Local sector c) Public sector d) None of the above

2 Marks

21. Define National Income

The labour and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial including services of all kinds.

22. Write the formula for calculating GNP.

GNP at Market Prices = GDP at Market Prices + Net Factor Income from Abroad **(OR)**

$$\text{GNP} = (C + I + G + (X - M) + (R - P))$$

23. What is the difference between NNP and NDP?

NNP	NDP
The market value of the net output of the economy during the year	The value of the net output of the economy during the year.
NNP = GNP - Depreciation.	NDP = GDP - Depreciation.

24. Trace the relationship between GNP and NNP.

GNP	NNP
GNP at Market Prices = GDP at Market Prices + Net Factor Income from Abroad	NNP = GNP – depreciation allowance

25. What do you mean by the term 'Personal Income'?

Personal income is the Total Income received by the individuals of a country from all sources before paying direct taxes in a year.

26. Define GDP deflator.

i. It is an index of price changes of goods and services included in GDP.

ii. $\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

27. Why is self-consumption difficult in measuring national income?

- Farmer keep a large portion of food and other goods produced on the farm for self-consumption,
- The part of the production which is unsold product unable to be included in national income.

3 Marks

28. Write a short note on per capita income.

i. It is the average income of a person in a country in a particular year.

ii. $\text{Per capita income} = \frac{\text{National Income}}{\text{Population}}$

iii. It is the income per head of the population.

29. Differentiate between personal and disposable income.

S.n	Personal Income	Disposable income
1	The total income received by the individuals of a country from all sources before payment of direct taxes in a year	It is the individual income after the payment of income tax.
2	It will never equal National income	This amount is equal to consumption and savings
3	Personal Income = National Income – (Social Security Contribution and undistributed corporate profits) + Transfer payments	Disposable Income = Personal income – Direct Tax

30. Explain briefly NNP at factor cost.

- NNP refers to the market value of output
- Whereas NNP at factor cost is the total income payment made to factors of production.
- NNP at factor cost = NNP at Market prices – Indirect taxes + Subsidies

31. Give a short note on the Expenditure method.

- The total expenditure incurred by the society in a particular year is added together.
- To calculate the expenditure of a society, it includes personal consumption expenditure, net domestic investment, government expenditure on consumption as well as capital goods and net exports.
- GNP = C + I + G + (X-M)**

32. What is the solution to the problem of double counting in the estimation of national income?

- Double counting is to be avoided under the value-added method.
- Any commodity which is either raw material or intermediate good for the final product should not be included
- At every stage value-added only should be calculated

33. Write briefly about national income and welfare.

- National Income is considered an indicator of the economic well-being of a country
- The economic progress of countries is measured in terms of their GDP percapita and their annual growth rate.
- A country with a higher per-capita income is supposed to enjoy greater economic welfare with a high standard of living.

34. List out the uses of national income

- It describes the economic or production performance of a country.
- The National Income data is used for planners, Government, businessmen and International agencies
- The National income figures are used to measure the level of development of a country.

5 Marks**35. Explain the importance of national income.**

- To know the relative importance of the various sectors of the economy and their contribution to national income.

2. To formulate national policies such as monetary policy, fiscal policy and other policies.
3. To formulate planning and evaluate plan progress; it is essential that the data pertaining to a country's gross income, output, saving and consumption from different
4. To build economic models both in the short-run long-run
5. To make an international comparison, inter-regional comparison and inter-temporal comparison of the growth of the economy during different periods.

36. Discuss the various methods of estimating the national income of a country.

There are three methods 1. Production Method 2. Income method 3. Expenditure method.

1. Production or value-added method

- i) Product method measures the output of the country. It is also called the inventory method.
- ii) The gross value of output from different sectors was obtained for the entire economy during a year. To avoid double-counting, either the value of the final output should be taken into the estimate of GNP or the sum of values added should be taken.

2. Income method or factor earning method

It is calculated by adding up all the incomes generated in the course of producing the national products.

1. Factor incomes are grouped under labour income, capital income and mixed-income.
2. Calculated as domestic factor income plus net factor incomes from abroad. $Y = w + r + l + \pi + (R-P)$

Items not to be included:

1. Transfer payments are not to be included
2. The receipts from the sale of second-hand goods

Items to be included

1. Imputed value of rent for self-occupied houses or offices is to be included.
2. Imputed value of services provided by owners of production units is to be include

3. Expenditure method

- i) Under this method total expenditure incurred by the society in a particular year is added together.
- ii) To calculate the expenditure of a society, it includes personal consumption expenditure, net domestic investment, government expenditure on consumption as well as capital goods and net exports.
- iii) $GNP = C + I + G + (X-M)$

Not to be included: 1. Second-hand goods should not be included.

2. Purchase of shares and bonds should not be included.

37. What are the difficulties involved in the measurement of national income?

- 1) Transfer of payments:** Government makes payments that are not included in the national income. Because they are paid without adding anything to the production processes.
- 2) Difficulties in assessing depreciation allowance:** It requires a high degree of judgment to assess the depreciation allowance and other charges.
- 3) Unpaid services:** rendering services to their friends, painting, singing, dancing, etc. and a housewife renders a number of useful services but they were not paid for them and their services are not directly included in national income.

4) Income from illegal activities: Income earned through illegal activities like gambling, smuggling, illicit extraction of liquor, etc., are not included

5) Production for self-consumption:

- 1) Farmer keeps a large portion of food and other goods produced on the farm for self-consumption,
- 2) The part of the production which is unsold products unable to be included in the National income

38. Discuss the importance of social accounting in economic analysis.

National income is also being measured by the social accounting method. Under this method, the transactions among various sectors such as firms, households, government, etc.,

The Importance of social accounting

1) In Classifying Transactions: Economic activity in a country involves innumerable transactions relating to buying and selling, paying and receiving income, exporting and importing, paying taxes, etc.

2) In Understanding Economic Structure: Social accounting helps us to understand the structure of the body economy.

3) In Understanding Different Sectors and Flows: Social accounts throw light on the relative importance of the different sectors and flows in the economy. (Eg): production sector, consumption sector, investment sector and the rest of the world sector

4) In Clarifying Relations between Concepts: Social accounts help in clarifying the relationships between such related concepts as a net national product at factor cost and gross national product at market prices.

5) In Guiding the Investigator: Social accounts are a guide for the economic investigator by indicating the type of data which might be collected for analysing the behaviour of the economy

3. Theories of employment and income

1. Every able-bodied person who is willing to work at the prevailing wage rate is employed called as ..
a) Full employment b) Under employment c) Unemployment d) Employment opportunity

2. Structural unemployment is a feature in a
 a) Static society b) Socialist society **c) Dynamic society** d) Mixed economy

3. In disguised unemployment, the marginal productivity of labour is
a) Zero b) One c) Two d) Positive

4. The main concentration of the Classical Economic Theory is
 a) Under employment **b) Economy is always in the state of equilibrium**
 c) Demand creates its supply d) Imperfect competition

5. J.B. Say is a
 a) Neo Classical Economist **b) Classical Economist** c) Modern Economist d) New Economist

6. According to Keynes, which type of unemployment prevails in capitalist economy?
 a) Full employment b) Voluntary unemployment c) Involuntary unemployment **d) Under employment**

7. The core of the classical theory of employment is
 a) Law of Diminishing Return b) Law of Demand **c) Law of Markets** d) Law of Consumption

8. Keynes attributes unemployment to
 a) A lack of effective supply **b) A lack of effective demand** c) A lack of both d) None of the above

9. Flexibility brings equality between saving and investment.
 a) Demand b) Supply c) Capital **d) Interest**

10..... theory is a turning point in the development of modern economic theory.

- a) **Keynes** b) Say's c) Classical d) Employment

11.The basic concept used in Keynes Theory of Employment and Income is.....

- a) Aggregate demand b) Aggregate supply c) **Effective demand** d) Marginal Propensity Consume

12.The component of aggregate demand is

- a) Personal demand b) **Government expenditure** c) Only export d) Only import

13.Aggregate supply is equal to

- a) $C + I + G$ b) $C + S + G + (x-m)$ c) $C + S + T + (x-m)$ d) **$C + S + T + R_f$**

14.Keynes theory pursues to replace laissez faire by

- a) No government intervention b) Maximum intervention
c) **State intervention in certain situation** d) Private sector intervention

15.In Keynes theory of employment and income, is the basic cause of economic depression.

- a) Less production b) More demand
c) Inelastic supply d) **Less aggregate demand in relation to productive capacity.**

16.Classical theory advocates

- a) **Balanced budget** b) Unbalanced budget c) Surplus budget d) Deficit budget

17.Keynes theory emphasized on equilibrium.

- a) Very short run b) **Short run** c) Very long run d) Long run

18.According to classical theory, rate of interest is a reward for

- a) Investment b) Demand c) Capital d) **Saving**

19.In Keynes theory ,the demand for and supply of money are determined by

- a) **Rate of interest** b) Effective demand c) Aggregate demand d) Aggregate supply

20.Say's law stressed the operation of in the economy.

- a) Induced price mechanism b) **Automatic price mechanism** c) Induced demand d) Induced investment.

2 Marks

21. Define full employment.

Keynes defines full employment as the absence of involuntary unemployment.

22. What is the main feature of rural unemployment?

The major feature of rural unemployment is the existence of unemployment in the form of disguised unemployment and seasonal unemployment.

23. Give a short note on frictional unemployment.

- It arises due to an imbalance between the supply of labour and demand for labour.
- This is because of immobility of labour, lack of necessary skills, breakdown of machinery, shortage of raw materials etc.

24. Give reasons for labour retrenchment in the present situation.

- Now a days, invention and innovations lead to the adoption of new techniques there by the existing workers are retrenched.
- Labour saving devices are responsible for technological unemployment.

25. List out the assumptions of Say's law.

- No single buyer or seller of a commodity or an input can affect the price.
- There is wage-price flexibility.

26. What is effective demand?

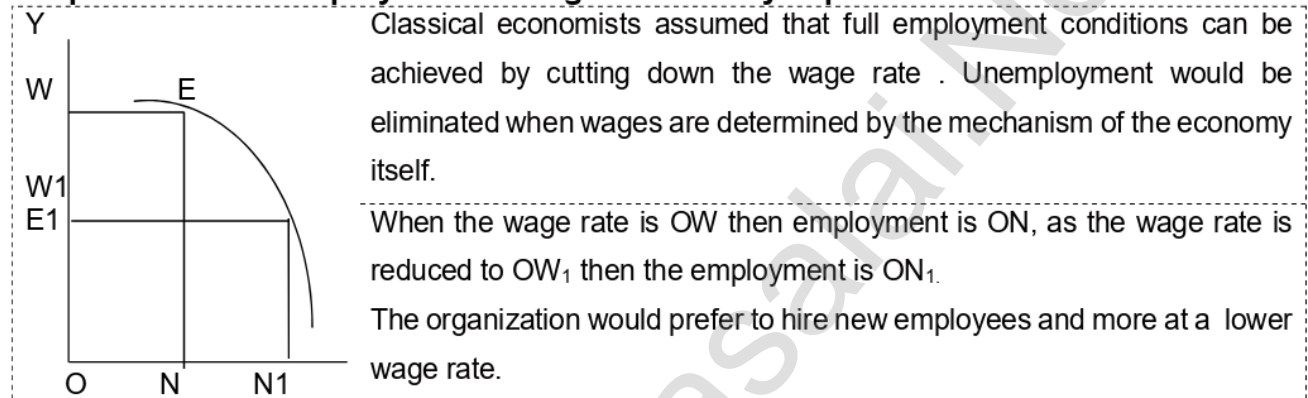
- It is money spent actually on products of the industry by the people.
- $ED = Y = C + I = \text{Output} = \text{Employment}$.

27. What are the components of aggregate supply?

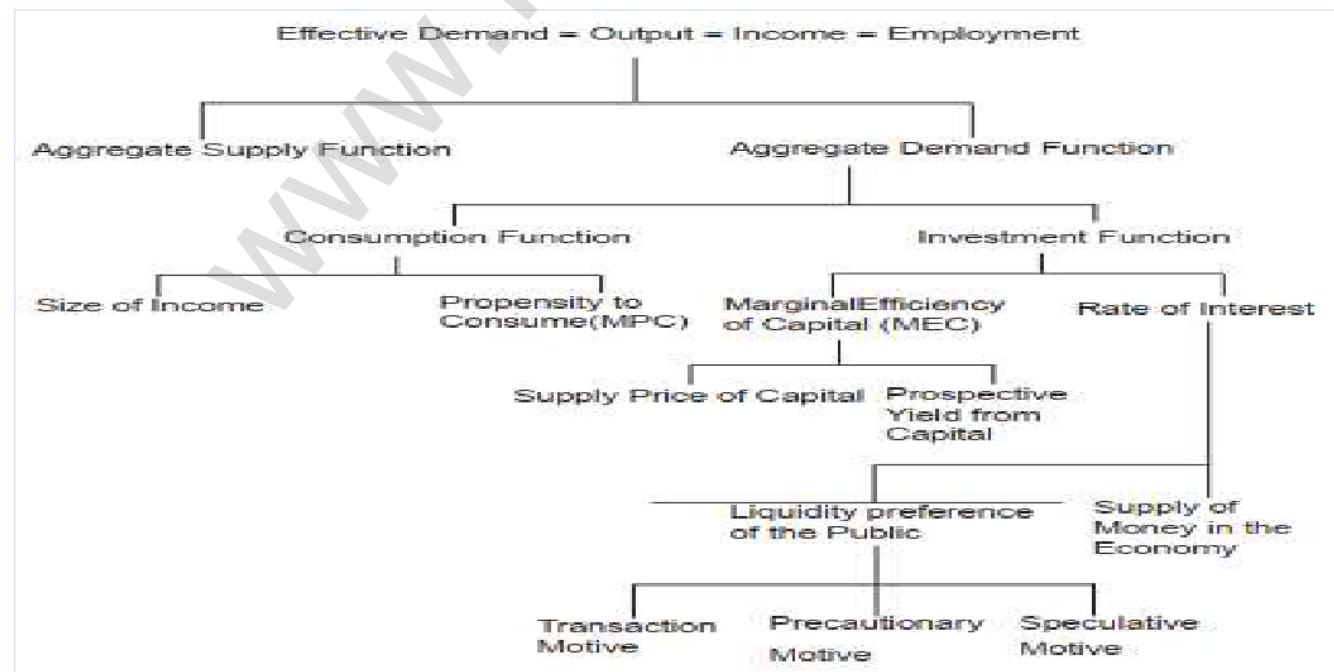
- Aggregate (desired) consumption expenditure (C)
- Aggregate (desired) private savings (S)
- Net tax payments (T)
- Personal (desired) transfer payments to foreigners (R_f).

3 Marks**28. Explain the following in short**

- (i) **Seasonal unemployment:** Unemployment occurs during the season, People are unemployed during the off-season.
- (ii) **Frictional unemployment:** due to imbalance between the supply of labour and demand for labour.
- (iii) **Educated unemployment:** Sometimes educated people are underemployed or unemployed when the qualification of the people does not match the job.

29. According to the classical theory of employment, how to wage reduction solves the problem of unemployment is diagrammatically explained.**30. Write short note on the implications of Say's law.**

- There is no possibility of over- production or unemployment.
- As automatic price mechanism operates in the economy, there is no need for government intervention
- Interest flexibility brings about equality between saving and investment.

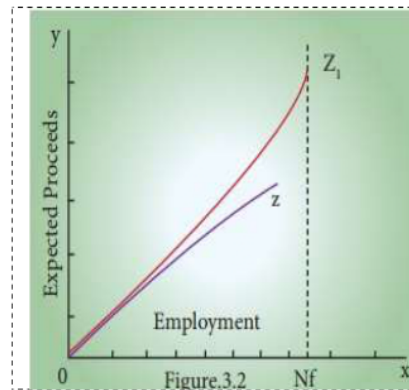
31. Explain Keynes' theory in the form of a flow chart.

32. What do you mean by aggregate demand.? Mention its components.

1. The aggregate demand is the amount of money which entrepreneurs expect to get by selling the output produced by the number of labourers employed.
2. It is the expected income or revenue from the sale of output at different levels of employment.
3. $AD = C + I + G + (X - M)$

33. Explain aggregate supply with the help of a diagram.

Aggregate supply refers to the value of the total output of goods and services produced in an economy in a year. Aggregate Supply = $C + S + T + R_f$



1. Z curve is linear where money wages remain fixed;
2. Z₁ curve is non-linear since the wage rate increases with employment.
3. When the full employment level of N_f is reached it is impossible to increase output by employing more men.
4. The curve depends on the relationship between employment and productivity.

34. Write any five differences between classism and Keynesianism.

S.n	Keynes Theory	Classical Theory
1.	Short-run equilibrium	Long-run equilibrium
2.	Saving is a vice	Saving is a social virtue.
3.	The rate of interest is a flow.	Rate of interest is a stock
4.	Demand creates its own supply.	Supply creates its own demand.
5.	State intervention is advocated.	Champions of Laissez-fair policy

5 Marks**35. Describe the types of unemployment.**

Unemployment is a problem faced when there are people, who are willing to work and able to work but cannot find suitable jobs

1. **Cyclical Unemployment:** It exists during the downturn phase of the trade cycle in the economy. It is caused by the efficiency of effective demand and can be cured by public investment or expansionary monetary policy.
2. **Seasonal Unemployment:** It occurs during certain seasons of the year. Seasonal unemployment happens from demand-side also
3. **Frictional Unemployment:** Frictional unemployment arises due to an imbalance between the supply of labour and demand for labour.
4. **Educated Unemployment:** Sometimes educated people are underemployed or unemployed when their qualification does not match the job.
5. **Technical Unemployment:** Modern technology being capital intensive requires fewer labourers. Labour-saving devices are responsible for technological unemployment.

36. Critically explain Say's law of the market.

- i) J.B. Say enunciated the proposition that "Supply creates its own demand".
- ii) "When goods are produced by firms in the economy, they pay the reward to the factors of production.
- iii) The households after receiving rewards of the factors of production spend the amount on the purchase of goods and services produced by them.

Assumptions of Say's law of market

1. No single buyer or seller of a commodity on input can affect the price.
2. Full employment.
3. The laissez-faire policy is essential for an automatic and self-adjusting process.
4. There will be perfect competition in the labour and product market.
5. There is wage-price flexibility.
6. Money acts only as a medium of exchange.

Implications of Say's Law

1. Unutilized resources are employed when factors accept reward according to their productivity under full employment.
2. As an automatic price mechanism operates in the economy, there is no need for government intervention.
3. Interest flexibility brings about equality between saving and investment.

Criticisms of Say's Law

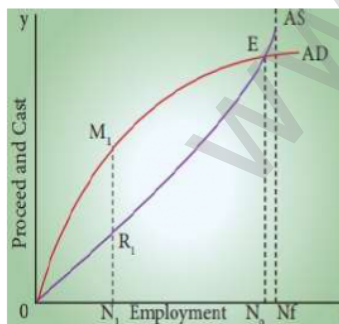
1. According to Keynes, supply does not create demand. It is not applicable where demand does not increase as much as production increases.
2. Automatic adjustment process will not remove unemployment.
3. Money is not neutral.

37. Narrate the equilibrium between ADF and ASF with a diagram.

Under the Keynes theory of employment, a simple two-sector economy consisting of the household sector and the business sector is taken to understand the equilibrium between ADF and ASF.

There are two approaches to the determination of the equilibrium level of income.

1. Aggregate demand – Aggregate supply
2. Saving – Investment approach.



- i) The aggregate demand and aggregate supply reach equilibrium at point E.
- ii) The employment level is O - No
- iii) At ON_1 employment, the aggregate supply is $N_1 R_1$.
- iv) But they are able to produce $M_1 N_1$.
- v) The expected level of profit is $M_1 R_1$.
- vi) To attain this level of profit, entrepreneurs will employ more labourers.
- vii) At point E, the employment of labour will reach max and it will stop employment.

viii) At all levels of employment beyond ON_0 , the aggregate demand curve is below the aggregate supply curve indicating loss to the producers. Hence they will never employ more than ON_0

ix) The difference between $N_0 - N_f$ is the level of unemployment.

38. Explain the difference between classical theory and keynes theory

S.N	Keynesianism	Classicism
1.	Short-run equilibrium	Long-run equilibrium
2.	Saving is a vice	Saving is a social virtue.
3.	The function of money is a medium of exchange on the one side and a store of value on the other side.	The function of money is to act as a medium of exchange
4.	The macro approach to national problems	Micro foundation to macro problems
5.	State intervention is advocated.	Champions of Laissez-fair policy
6.	Applicable to all situations – full employment and less than full employment.	Applicable only to the full employment situation.
7.	Capitalism has inherent contradictions	Capitalism is well and good.
8.	Budgeting should be adjusted to the requirements of the economy.	Balanced budget
9.	The rate of interest is a flow.	The rate of interest is a stock.
10.	Demand creates its own supply.	Supply creates its own demand.

4. Consumption and Investment Functions.

1. The average propensity to consume is measured by

- a) C/Y b) CxY c) Y/C d) $C+Y$

2. An increase in the marginal propensity to consume will:

- a) **Lead to consumption function becoming steeper** b) Shift the consumption function upwards
c) Shift the consumption function downwards d) Shift savings function upwards

3. If the Keynesian consumption function is $C=10+0.8Y$ then, if the disposable income is Rs 1000, what is amount of total consumption?

- a) ` 0.8 b) ` 800 c) **` 810** d) ` 0.81

4. If the Keynesian consumption function is $C=10+0.8Y$ then, when disposable income is Rs 100, what is the marginal propensity to consume?

- a) ` 0.8 b) ` 800 c) ` 810 d) ` 0.81

5. If the Keynesian consumption function is $C=10+0.8Y$ then, and disposable income is Rs100, what is the average propensity to consume?

- a) ` 0.8 b) ` 800 c) ` 810 d) **` 0.9**

6. As national income increases

- a) **The APC falls and gets nearer in value to the MPC.** b) The APC always approaches infinity.
c) The APC increases and diverges in value from the MPC. d) The APC stays constant

7. As increase in consumption at any given level of income is likely to lead

- a) **Higher aggregate demand** b) An increase in exports
c) A fall in taxation revenue d) A decrease in import spending

8. Lower interest rates are likely to :

- a) Decrease in consumption b) increase cost of borrowing
c) Encourage saving d) **increase borrowing and spending**

9. The MPC is equal to :

- a) Total spending / total consumption b) Total consumption/total income
c) **Change in consumption /change in income** d) none of the above.

10. The relationship between total spending on consumption and the total income is the

- a) **Consumption function** b) Savings function
c) Investment function d) aggregate demand function

11. The sum of the MPC and MPS is ----

- a) **1** b) 2 c) 0.1 d) 1.1

12. As income increases, consumption will ----

- a) fall b) not change c) fluctuate d) **increase**

13. When investment is assumed autonomous the slope of the AD schedule is determined by the

- a) marginal propensity to invest b) disposable income
c) **marginal propensity to consume** d) average propensity to consume

14. The multiplier tells us how much ----- changes after a shift in ----

- a) Consumption, income b) investment, output c) savings, investment d) **output, aggregate demand**

15. The multiplier is calculated as

- a) $1/(1-MPC)$ b) $1/MPS$ c) $1/MPC$ d) **a and b**

16. If the MPC is 0.5, the multiplier is -----

- a) **2** b) $1/2$ c) 0.2 d) 20

17. In an open economy import ----- the value of the multiplier

- a) **Reduces** b) increase c) does not change d) changes

18. According to Keynes, investment is a function of the MEC and ---

- a) Demand b) Supply c) Income d) **Rate of interest**

19. The term super multiplier was first used by

- a) **J.R. Hicks** b) R.G.D. Allen c) Kahn d) Keynes

20. The term MEC was introduced by

- a) Adam Smith b) **J.M. Keynes** c) Ricardo d) Malthus

2Marks

21. What is consumption function?

- i. It is a "functional relationship between two aggregates viz., total consumption and gross national income. ii. $C=f(Y)$

22. What do you mean by propensity to consume?

It is the relationship between income and consumption, that is when income increases, consumption also increases.

23. Define average propensity to consume (APC).

- i. is the ratio of consumption expenditure to any particular level of income.
ii. $APC = C/Y$

24. Define marginal propensity to consume (MPC).

- i. Defined as the ratio of the change in the consumption to the change in income.
ii. $MPC = \frac{\Delta C}{\Delta Y}$

25. What do you mean by propensity to save?

- i. It is a "functional relationship between two aggregates viz Total savings and gross National income.
ii. $S=f(Y)$

26. Define average propensity to save (APS).

- i. it is the ratio of total savings to total income
ii. $APS = S/Y$

27. Define Marginal Propensity to Save (MPS).

- i. It is the ratio of change in saving to a change in income.
- ii. $MPC = \frac{\Delta S}{\Delta Y}$

28. Define Multiplier.

- i. Multiplier is defined as the ratio of the change in National income to the change in investment
- ii. $K = \frac{\Delta Y}{\Delta I}$

29. Define Accelerator

- i. Accelerator is the numerical value of the relation between an increase in consumption and the resulting increase in investment.
- ii. $\beta = \frac{\Delta I}{\Delta C}$

3 Marks**30. State the propositions of Keynes's Psychological Law of Consumption**

- 1) When income increases, consumption expenditure also increases but by a smaller amount.
- 2) The increased income will be divided in some proportion between consumption expenditure and saving.
- 3) Increase in income always leads to an increase in both consumption and saving.

31. Differentiate autonomous and induced investment.

Autonomous Investment	Induced investment
It is independent	Planned
Income is inelastic	Income is elastic
Welfare motive	Profit motive
The curve is horizontal parallel to the x-axis	The curve is positively sloped

32. Explain any three subjective and objective factors influencing the consumption function.

Subjective factors	Objective factors
The motive of precaution: reserve against unforeseen contingencies.	Income distribution: Disparity between Poor and rich
The motive of foresight: desire to provide for anticipated future needs.	Price level: When the price falls, real income goes up
The motive of calculation: The desire to enjoy interest and appreciation.	Wage level: positive relationship between wage and consumption

33. Mention the differences between accelerator and multiplier effect.

Accelerator	Multiplier
numerical value of the relation between an increase in consumption and the resulting increase in investment	the ratio of the change in national income to the change in investment
Changes in consumption forms the effects	Change in investment forms the effect
$\beta = \frac{\Delta I}{\Delta C}$	$K = \frac{\Delta Y}{\Delta I}$

34. State the concept of the super multiplier.

- i. The super multiplier is worked out by combining both induced consumption and induced investment
- ii. It is greater than a simple multiplier.
- iii. It is K and β interaction

35. Specify the limitations of the multiplier.

It assumes that those who earn income are likely to spend a proportion of their additional income on consumption. But in practice, people tend to spend their additional income on other items. Such expenses are known as leakage. These leakages are the limitation of the multiplier.

- i. Payment towards past debts
- ii. Purchase of existing wealth
- iii. Import of goods and services

5 Marks**36. Explain Keynes's psychological law of consumption function with a diagram.**

Keynes's Psychological Law of Consumption is based on the consumption function.

Assumptions:

1. Ceteris: other variables such as income distribution, tastes, habits, etc. do not change.
2. Existence of Normal Conditions: The law holds good under normal conditions.
3. Existence of a Laissez-faire Capitalist Economy: The law operates in a rich capitalist economy where there is no government intervention.

	Income	Consumption	savings	Proposition (1): When income increases from 120 to 180 consumption also increases from 120 to 170 but the increase in consumption is less than the increase in income, 10 is saved. Proposition (2): When income increases to 180 and 240, it is divided in some proportion between consumption by 170 and 220 and saving by 10 and 20 respectively.
	Y	C	$S = Y - C$	
	120	120	0	
	180	170	10	
	240	220	20	

Proposition (3): Increases in income from 180 to 240, lead to increased consumption 170 to 220 and increased saving by 20 and 10 than before.

37. Briefly explain subjective and objective factors of the consumption function.

S.N	Subjective Factors	Objective factors
1.	Subjective factors are internal factors related to psychological feels..	External factors which can be measured and real
2.	Precaution motive. reserve unforeseen contingencies Eg. Accidents.	Income distribution: large disparity between rich and poor, the consumption is low because the rich people have a low propensity to consume.
3.	Foresight motive is the desire to provide for anticipated future needs. Eg. Old age savings	Price level; determines the consumption function. When the price falls the real income goes up

4.	Calculation motive: Desire to enjoy interest and appreciation etc.,	Wag level; determines the consumption function, there is a positive relationship between wage and consumption.
5.	The motive for improvement: The desire to enjoy for improving the standard of living.	Interest rate: Higher rate of interest will encourage people to save more money and reduces consumption

38. Illustrate the working of Multiplier.

i) Government undertakes investment expenditure is `100 crore on public works, by way of wages, price of materials etc.

ii) Thus income of labourers and suppliers of materials is split by `100 cr.

iii) Suppose the MPC is 0.8 which is 80 %. A sum of `80 cr. is spent on consumption (A sum of `20 Cr. is saved).

iv) As a result, an income of `80 crores, in turn, spent `64 crores and saved `16cr.

v) The consumption expenditure and income give a chain reaction

The final result is

$$\Delta Y = 100 + 100 \times \frac{4}{5} + 100 \times \left[\frac{4}{5}\right]^2 + 100 \times \left[\frac{4}{5}\right]^3 \text{ or,}$$

$$\Delta Y = 100 + 100 \times 0.8 + 100 \times (0.8)^2 + 100 \times (0.8)^3$$

$$= 100 + 80 + 64 + 51.2 \dots$$

$$= 500$$

$$\text{that is } 100 \times \frac{1}{1 - \frac{4}{5}}$$

$$100 \times \frac{1}{1/5}$$

$$100 \times 5 = \text{`500 cr.}$$

For instance if $C = 100 + 0.8Y$, $I = 100$,

$$Y = C + I, \text{ then } Y = 100 + 0.8Y + 100$$

$$0.2Y = 200$$

$$Y = 200/0.2 = 1000 \rightarrow \text{Point B}$$

If "I" is increased to 110, then

$$0.2Y = 210$$

$$Y = 210/0.2 = 1050 \rightarrow \text{Point D}$$

for `10 increase in I, Y has increased by `50.

This is due to the multiplier effect.

At point A, $Y = C = 500$

$$C = 100 + 0.8 (500) = 500; S = 0$$

At point B, $Y = 1000$

$$C = 100 + 0.8 (1000) = 900; S = 100 = I$$

At point D, $Y = 1050$

$$C = 100 + 0.8 (1050) = 940; S = 110 = I$$

When I is increased by 10, Y increases by `50.

$$K = \frac{1}{0.2} = 5 \quad \text{This is multiplier effect (K = 5)}$$

39. Explain the operation of the Accelerator.

The accelerator coefficient is the ratio between induced investment and an initial change in consumption

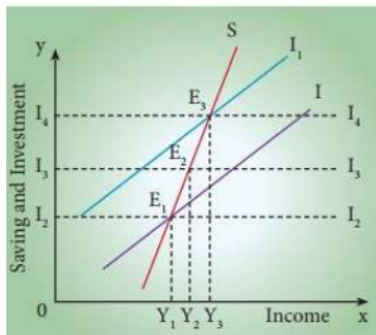
i) To produce 1000 consumer goods, 100 machines are required.

ii) life of a machine is 10 years. This means that every year 10 machines have to be replaced in order to maintain the constant flow of 1000 consumer goods.

iii) This might be called replacement demand.

iv) demand for consumer goods rises by 10 % (i.e, from 1000 to 1100). That caused an increase in demand for 10 more machines. So the total demand for machines is 20. (10 for replacement and 10 for meeting increased demand).

v) It may be noted here a 10 % increase in demand for consumer goods causes a 100 % increase in demand for machines, from 10 to 20.



1)SS is the saving curve.

2)II is the investment curve.

3)At point E1, the economy is in equilibrium with OY1 income.

4)Saving and investment are equal at OI 2. Now, investment is increased from OI 2 to OI4, and the income also increases from OY1 to OY3, the equilibrium point being E3.

5)If the increase in investment by I2 I4 is purely exogenous, then the increase in income by Y1 Y3 would have been due to the multiplier effect. But in this diagram, it is assumed that exogenous investment is only by I2 I3 and induced investment is by I3 I4.

6)Therefore, the increase in income by Y 1 Y2 is due to the multiplier effect and the increase in income by Y2 Y3 is due to the accelerator effect.

40. What are the differences between MEC and MEI?

S.N	Marginal Efficiency of Capital	Marginal Efficiency of Investment
1	It is based on a given supply price for capital.	It is based on the induced change in the price due to a change in the demand for capital.
2	It represents the rate of return on all successive units of capital without regard to existing capital.	It shows the rate of return on just those units of capital over and above the existing capital stock.
3	The capital stock is taken on the X axis of the diagram.	The amount of investment is taken on the X - axis of the diagram.
4	It is a “stock” concept.	It is a “flow” concept.
5	It determines the optimum capital stock in an economy at each level of interest rate.	It determines the net investment of the economy at each interest rate given the capital stock

5. Monetary Economics

1. The RBI Headquarters is located at

- a) Delhi b) Chennai c) **Mumbai** d) Bengaluru

2. Money is

- a) acceptable only when it has intrinsic value b) constant in purchasing power
c) **the most liquid of all assets** d) needed for allocation of resources

3. Paper currency system is managed by the

- a) **Central Monetary authority** b) State Government c) Central Government d) Banks

4. The basic distinction between M1 and M2 is with regard to .

- a) post office deposits b) **Saving deposits with post office savings**
c) saving deposits of banks d) currency

5. Irving Fisher's Quantity Theory of Money was popularized in

- a) 1908 b) 1910 c) **1911** d) 1914.

6. MV stands for

- a) demand for money **b) supply of legal tender money**
c) Supply of bank money d) Total supply of money

7. Inflation means

- a) Prices are rising** b) Prices are falling
c) Value of money is increasing d) Prices are remaining the same

8. -----inflation results in a serious depreciation of the value of money.

- a) Creeping b) Walking c) running **d) Hyper**

9. -----inflation occurs when general prices of commodities increase due to increase in production costs such as wages and raw materials.

- a) Cost-push** b) demand pull c) running d) galloping

10. During inflation, who are the gainers?

- a) Debtors** b) Creditors c) Wage and salary earners d) Government

11. -----is a decrease in the rate of inflation.

- a) Disinflation** b) Deflation c) Stagflation d) Depression

12. Stagflation combines the rate of inflation with

- a) Stagnation** b) employment c) output d) price

13. The study of alternating fluctuations in business activity is referred to in Economics as

- a) Boom b) Recession c) Recovery **d) Trade cycle**

14. During depression the level of economic activity becomes extremely

- a) high b) bad **c) low** d) good

15. "Money can be anything that is generally acceptable as a means of exchange and that at the same time acts as a measure and a store of value", This definition was given by

- a) Crowther** b) A.C. Pigou c) F.A. Walker d) Francis Bacon

16. Debit card is an example of ----

- a) currency b) paper currency **c) plastic money** d) money

17. Fisher's Quantity Theory of money is based on the essential function of money as

- a) measure of value b) store of value **c) medium of exchange** d) standard of deferred payment

18. V in MV = PT equation stands for

- a) Volume of trade **b) Velocity of circulation of money**
c) Volume of transaction d) Volume of bank and credit money

19. When prices rise slowly, we call it

- a) galloping inflation **b) mild inflation** c) hyper inflation d) deflation

20. -----inflation is in no way dangerous to the economy.

- a) walking b) running **c) creeping** d) galloping

2 Marks

21. Define Money.

"Money is, what money does" - Walker.

22. What is barter?

Commodities and services were directly exchanged for other commodities and services.

23. What is commodity money?

- i. Commodity money has value in itself and value in its use of money eg.
- ii. Their face value is equal to their intrinsic metal value.

24. What is the gold standard?

The gold standard is a system in which the standard currency is directly linked with Gold. Monetary units are defined in terms of a certain weight of gold

25. What is plastic money? Give example.

- i. It is the advanced form of financial product and it is an alternative to cash.
- ii. eg. Credit-Cards, Debit Cards and Smart Cards.

26. Define inflation.

- i. Inflation is a consistent and appreciable raise in the general Price level.
- ii. "Too much of money chasing too few goods" – Coulbourn

27. What is Stagflation?

Combination of stagnant Economic growth, High employment and High inflation.

3 Marks**28. Write a note on metallic money.**

- i. Metallic standard is the premier one.
- ii. Under the metal standards, some kind of metal either gold or silver is used to determine the standard value of the money and currency.
- iii. Their face value is equal to their intrinsic metal value.

29. What is money supply?

- i. It means the total amount of money in an economy.
- ii. It refers to the amount of money which is in circulation in an economy at any given time.
- iii. money supply plays a crucial role in the determination of price level and interest rate.

30. What are the determinants of the money supply?

- 1. Currency Deposit Ratio(CDR); The ratio of money held by the public in currency to that they hold in bank deposits.
- 2. Reserve deposit Ratio (RDR); i) vault cash in banks and ii) deposits of commercial banks with RBI.
- 3. Cash Reserve Ratio (CRR); It is the fraction of the deposits the banks must keep with RBI.
- 4. Statutory Liquidity Ratio (SLR); It is the fraction of the total demand and time deposits of the commercial banks in the form of specified liquid assets.

31. Write the types of inflation.

- i. **Based on speed:** a)creeping inflation b)walking inflation c)running inflation d)Gallop inflation
- ii. **On the basis of demand and cost:** a)Demand-Pull inflation b)Cost-Push inflation
- iii. **On the basis of inducement:** a)Currency inflation b)Credit inflation c)Deficit induced inflation d)Profit induced inflation e)Scarcity induced inflation f)Tax induced inflation.

32. Explain Demand-pull and Cost-push inflation.

i) **Demand-Pull Inflation:** Demand and supply play a crucial role in deciding the inflation levels in society at all points in time.

ii) For instance, if the demand is high for a product and supply is low, the price of the product increases.

iii) **Cost-Push Inflation:** When the cost of raw materials and other inputs rises inflation results. An increase in wages paid to labour also leads to inflation.

33. State Cambridge equations of the value of money.

i) **Marshall's Equation:** $M = KPY$, Where; M is the quantity of money, Y is the aggregate real income of the community, P is Purchasing Power of Money, and K represents the fraction of the real income which the public desires to hold in the form of money.

Thus, the price level $P = M/KY$ (The reciprocal of the price level) is $1/P = KY/M$

ii) **Keynes' Equation:** $n = pk$ (or) $p = n / k$ Where; n is the total supply of money, p is the general price level of consumption goods k is the total quantity of consumption units the people decide to keep in the form of cash, Keynes indicates that K is a real balance because it is measured in terms of consumer goods.

34. Explain disinflation.

i. Disinflation is slowing down the rate of inflation by controlling the amount of credit bank loans and hiring purchases available to consumers without causing more unemployment.

ii) also it is defined as the process of reversing inflation without creating unemployment or reducing output in the economy.

5 Marks**35. Illustrate Fisher's Quantity theory of money.**

Fisher's gave quantitative form in terms of **Equation of Exchange**, $MV=PT$, Supply of money=Demand for money; where M= Money Supply, V= Velocity of Money P= Price Level, T= Volume of Transaction

"Cash Transaction Equation" $P=MV/T$ which implies that the quantity of money determines the price level. The price level in its turn varies directly with the quantity of money, provided 'V' and 'T' remain constant.

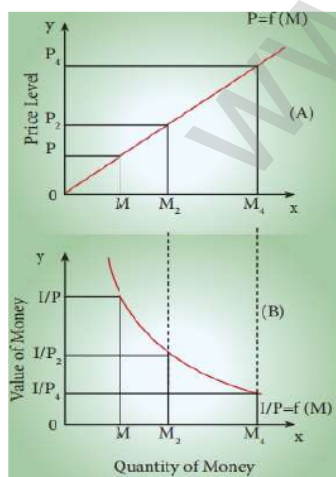
Fisher extended his original equation of exchange to include bank deposits M1 and its velocity V1. The revised equation was $PT = MV + M1V1$ or $P = \frac{MV + M1V1}{T}$

a) the quantity of money in circulation 'M'

b) the velocity of circulation of money 'V'

c) the volume of bank credit money M1

d) the velocity of circulation of credit money V1 and the volume of trade (T)



i) **figure (a)** shows the effect of changes in the quantity of money on the price level. When the quantity of money is OM, the price level is OP.

ii) When the quantity of money is doubled to OM₂, the price level is also doubled to OP₂.

iii) When the quantity of money is increased four-fold to OM₄, the price level also increases by four times to OP₄

This is expressed by the curve $OP = f(M)$ from the origin at 45° .

figure (b), shows the inverse relationship between the quantity of money and the value of money, where the value of money is taken on the vertical axis and the quantity of money is on the Horizontal axis

When the value of money is OP the quantity of money is doubling up to OM₂.

When the value of money becomes one-half of what it was before, ($OI / P2$). But, with the quantity of money increasing by four-fold to $OM4$,

When the value of money is reduced by $OI / P4$. This inverse relationship between the quantity of money and the value of money is shown by the downward-sloping curve $IO / P = f(M)$.

36. Explain the function of money

Primary function

i) **Money as a medium of exchange:** Money has the quality of general acceptability, and all exchanges take place in terms of money.

ii) **Money as a measure of value:** measures the value of goods and services. It is a collective measure of value.

2. Secondary Functions

i) **Money as a Store of value:** Money serves as an excellent store of wealth, as it can be easily converted into other marketable assets, such as land, machinery, plant etc.

ii) **Money as a Standard of Deferred Payments:** Borrowing and lending were difficult problems under the barter system but the money economy has greatly facilitated the borrowing and lending processes.

3. Contingent Functions

i) **Basis of the Credit System:** Money is the basis of the Credit System. Business transactions are either in cash or on credit

ii) **Money facilitates the distribution of National Income:** The task of distributing national income was exceedingly complex under the barter system.

4. Other Functions

i) **Money helps to maintain Repayment Capacity:** To maintain its repayment capacity, every firm has to keep assets in the form of liquid cash.

ii) **Money gives liquidity to Capital:** Money is the most liquid form of capital. It can be put to any use

37. What are the causes and effects of inflation on the economy?

The main causes of inflation

i) **Increase in Money Supply:** increase in the supply of money which leads to an increase in aggregate demand.

ii) **Increase in Disposable Income:** Disposable income may increase with the rise in national income or reduction in taxes or reduction in the saving of the people.

iii) **Increase in Public Expenditure:** Government activities have been expanding due to developmental activities and social welfare programs.

iv) **Increase in Consumer Spending:** The demand for goods and services increases when they are given credit to buy goods on a hire-purchase and instalment basis.

v) **Cheap Money Policy:** Cheap money policy also leads to an increase in the money supply which raises the demand for goods and services in the economy.

Effects of inflation:

1. Effects on Production:

i) This is particularly prior to full employment when resources are not fully utilized.

ii) Hyperinflation results in a serious depreciation of the value of money and discourage savings.

2. Effects on Distribution

- i) **Debtors and Creditors:** During inflation, debtors are the gainers while the creditors are losers.
- ii) **Fixed-income Groups:** The fixed-income groups are the worst hit during inflation because their incomes being fixed do not bear any relationship with the rising cost of living.

38. Describe the phases of the Trade cycle.

The study of these ups and downs is called the study of the Business cycle, Trade cycle or Industrial Fluctuation.

The four different phases of the trade cycle are referred to as

- (i) Boom (ii) Recession (iii) Depression and (iv) Recovery.



i) **Boom or Prosperity Phase:** The movement of the economy beyond full employment is characterized as a boom period, during this period, Money wages rise, profits increase and interest rates go up. The demand for bank credit increases.

ii) **Recession:** The turning point from the boom condition is called recession. Generally, the failure of a company or bank bursts the

boom and brings a phase of recession. Investments are drastically reduced, production comes down and income and profits decline, panic in the stock market and business activities show signs of dullness.

iii) **Depression:** The level of economic activity becomes extremely low. Firms incur losses and closure of business which leads to unemployment. The agricultural class and wage earners would be the worst hit.

iv. **Recovery:** The turning point from depression to revival towards an upswing. It begins with the revival of demand for capital goods. Autonomous investments boost activity. Recovery may be initiated by innovation or investment or by government expenditure.

6. Banking

1. A Bank is a

- a) **Financial institution** b) Corporate c) An Industry d) Service institutions

2. A Commercial Bank is an institutions that provides services

- a) Accepting deposits b) Providing loans c) **Both a and b** d) None of the above

3. The Functions of commercial banks are broadly classified into

- a) Primary Functions b) Secondary functions c) Other functions d) **a, b, and c**

4. Bank credit refers to

- a) Bank Loans b) Advances c) **Bank loans and advances** d) Borrowings

5. Credit creation means.

- a) **Multiplication of loans and advances** b) Revenue c) Expenditure d) Debt

6. NBFI does not have.

- a) **Banking license** b) government approval c) Money market approval d) Finance ministry approval

7. Central bank is ----- authority of any country.

- a) **Monetary** b) Fiscal c) Wage d) National Income

8. Who will act as the banker to the Government of India?

- a) SBI b) NABARD c) ICICI **d) RBI**

9. Lender of the last resort is one of the functions of.

- a) Central Bank** b) Commercial banks c) Land Development Banks d) Co-operative banks

10. Bank Rate means.

- a) Re-discounting the first-class securities** b) Interest rate c) Exchange rate d) Growth rate

11. Repo Rate means.

- a) Rate at which the Commercial Banks are willing to lend to RBI
b) Rate at which the RBI is willing to lend to commercial banks
c) Exchange rate of the foreign bank d) Growth rate of the economy

12. Moral suasion refers.

- a) Optimization b) Maximization **c) Persuasion** d) Minimization

13. ARDC started functioning from

- a) June 3, 1963 b) July 3, 1963 c) June 1, 1963 **d) July 1, 1963**

14. NABARD was set up in.

- a) July 1962 b) July 1972 **c) July 1982** d) July 1992

15. EXIM bank was established in.

- a) June 1982 b) April 1982 c) May 1982 **d) March 1982**

16. The State Financial Corporation Act was passed by

- a) Government of India** b) Government of Tamilnadu
c) Government of Union Territories d) Local Government.

17. Monetary policy is formulated by.

- a) Co-operative banks b) Commercial banks **c) Central Bank** d) Foreign banks

18. Online Banking is also known as.

- a) E-Banking **b) Internet Banking** c) RTGS d) NEFT

19. Expansions of ATM.

- a) Automated Teller Machine** b) Adjustment Teller Machine
c) Automatic Teller mechanism d) Any Time Money

20. 2016 Demonetization of currency includes denominations of

- a) `500 and `1000** b) `1000 and `2000 c) `200 and `500 d) All the above.

2 marks

21. Define Commercial banks.

According to Crowther "The Banker's business is to take the debts of other people to offer his own in exchange and thereby create money".

22. What is credit creation?

i. Credit creation means the multiplication of loans and advances.

ii. It leads to increased production, employment, sales, and faster economic development.

23. Define the Central bank.

i. A central bank is an institution that manages a state's currency, money supply, and interest rate.

ii. It is called Reserve Bank or Monetary authority.

24. Distinguish between CRR and SLR.

Sl.No	CRR	SLR
1	The commercial bank has to maintain reserve with the RBI	The amount which a bank has to maintain in the form of cash or gold or approved securities.
2	Regulates the flow of money in the economy	Ensures the solvency of the banks.

25. Write the meaning of Open market operations

- In a narrow sense**, the Central Bank starts the purchase and sale of Government securities in the money market.
- In Broad Sense**, the Central Bank purchases and sells not only Government securities but also other properly eligible securities.

26. What is rationing of credit?

- This is the oldest method of credit control,
- It regulates and controls the purpose for which the credit is granted by commercial banks.

27. Mention the functions of the agriculture credit department

- To maintain an expert staff to study all questions on agricultural credit
- To provide expert advice to Central and State governments, State Co-operative Banks and other banking activities.

3 marks**28. Write the mechanism of credit creation by Commercial banks.**

- Credit creation means the multiplication of loans and advances
- Banks have the power to expand or contract demand deposits and they exercise this power by granting more or less loans and advances.
- The power of commercial banks to create deposits through expanding their loans and advances

29. Give a brief note on NBFI.

- It is a financial institution that does not have a full banking license or is not supervised by the central bank.
- The NBFI do not carry on pure banking business, but they will carry on other financial transactions.
- They mobilize people's savings and use the funds to finance expenditure on investment activities
- NBFI is classified 1) Stock Exchange; and 2) Other Financial institutions.

30. Bring out the methods of credit control.

General(Quantitative)	Selective (Qualitative)
1. Bank Rate 2. Open Market Operations 3. Variable Cash Reserve Ratio	1. Rationing of Credit 2. Direct Action 3. Moral suasion 4. Publicity 5. Regulation of Consumer' Credit 6. Marginal Requirements

31. What are the functions of NABARD?

- i) It acts as a refinancing institution for all kinds of production and investment credit to agriculture, small-scale industries, cottage and village industries,
- ii) It provides short-term, medium-term and long-term credits to state co-operative Banks SCBs, RRBs, LDBs
- iii) It gives long-term loans to State governments to enable them to subscribe to the share capital of cooperative credit societies.

32. Specify the functions of IFCI.

- i. Industrial finance corporation of India provides assistance to the industrial concern.
- ii. Long-term loans, both in rupees and foreign currencies.
- iii. Underwriting of equity, preference and debenture issues.
- iv. Subscribing to equity, preference and debenture issues.

33. Distinguish between money market and capital market.**Money market:**

- i. The mechanism through which short-term funds are loaned and borrowed.
- ii. It designates financial institutions which handle the purchase, sale and transfer of short-term credit instruments.
- iii. Non-Banking Financial Institutions and the Central Bank are the institutions catering to the requirements of short-term funds in the money market.

Capital Market:

- i. It is a part of the financial system which is concerned with raising capital by dealing in shares, bonds and other long-term investments.
- ii. The market where investment instruments like bonds, equities and mortgages are traded is known as the capital market
- iii. Commercial Banks and Non-banking Institutions.

34. Mention the objectives of demonetizations.

Demonetization is the act of stripping a currency unit of its status as legal tender. It occurs whenever there is a change in national currency.

Objectives of Demonetization:

- | | |
|---|-------------------------|
| 1. Removing Black Money from the country. | 2. Stopping Corruption. |
| 3. Stopping Terror Funds. | 4. Curbing Fake Notes |

5 Marks**35. Explain the role of Commercial Banks in economic development.**

- 1. Capital Formation** Banks play an important role in capital formation, They mobilize the small savings from the people and make them available for productive purposes.
- 2. Creation of Credit** Credit creation leads to increased production, employment, sales and prices and thereby they bring about faster economic development.
- 3. Channelizing the Funds towards Productive Investment** Pooled savings should be allocated to various sectors of the economy with a view to increasing productivity.

4. Encouraging the Right Type of Industries helps not only for the industrialization of the country but also for the economic development of the country.

5. Banks Monetize Debt Commercial banks transform the loan to be repaid after a certain period into cash, which can be immediately used for business activities.

6. Finance to Government Banks provide long-term credit to the Government by investing their funds in Government securities and short-term finance by purchasing Treasury Bills.

36. Elucidate the functions of commercial Banks.

1. Primary functions

i) **Accepting deposits:** a) Demand deposits b) Time deposits

ii) **Advancing loans:** Commercial banks grant loans in the form of overdrafts.

2. Secondary functions

i) Agency functions

a) **Collecting cheques:** Commercial banks collect cheques and bills for the exchange of their customer.

b) **Collecting Income:** They collect dividends, pensions, salaries etc.

c) **Paying expenses:** Commercial banks make payments of telephone bills etc.

ii) General utility functions

a) **Providing locker facilities:** Safety lockers are provided by commercial banks.

b) **Issuers of traveler's cheques:** To travel out safely without any fear, the bank issues the traveller's cheques.

iii) **Transferring funds:** Transferring funds from one bank to another through the draft, e-transfer etc.,

iv) **Letter of credit:** Letter of credit is issued to customers to certify their credit worthiness.

3. Other functions

i) **Money supply:** Commercial banks help to increase the money supply without printing additional money.

ii) **Credit creation:** It is the process of multiplication of loans and advances.

37. Describe the functions of Reserve Bank of India.

1. Monetary Authority: It controls the supply of money in the economy to stabilize exchange rate, maintain healthy balance of payment

2. The issuer of currency: It is the sole authority to issue currency. It also takes action to control the circulation of fake currency.

3. The issuer of Banking License: As per Sec 22 of the Banking Regulation Act, every bank has to obtain a banking license from RBI to conduct banking business in India.

4. Banker to the Government: It acts as a banker both to the central and the state governments. It provides short-term credit

5. Banker's Bank: RBI is the bank of all banks in India as it provides loan to banks, accept the deposit of banks, and rediscount the bills of banks.

6. Lender of last resort: The banks can borrow from the RBI by keeping eligible securities as collateral at the time of need or crisis, when there is no other

- 7. Act as clearing house:** RBI manages 14 clearing houses. It facilitates the exchange of instruments and the processing of payment instructions.
- 8. Custodian of foreign exchange reserves:** It acts as a custodian of FOREX. It administers and enforces the provision of the Foreign Exchange Management Act (FEMA),
- 9. Regulator of Economy:** It controls the money supply in the system, and monitors different key indicators like GDP, Inflation, etc.
- 10. Managing Government securities:** RBI administers investments in institutions when they invest in specified minimum proportions of their total assets/liabilities in government securities.

38. What are the objectives of Monetary Policy? Explain.

- 1. Neutrality of Money:** Monetary authority should aim at the neutrality of money in the economy, monetary changes could be the root cause of all economic fluctuations.
- 2. Exchange Rate Stability:** The traditional objective of the monetary authority. This was the main objective of Gold Standard among different countries. When there was disequilibrium in the balance of payments of the country, it was automatically corrected by movements.
- 3. Price Stability:** Price stability is considered the most genuine objective of monetary policy. Stable prices repose public confidence.
- 4. Full Employment:** During the world depression, the problem of unemployment increased rapidly. It was regarded as socially dangerous, economically wasteful and morally deplorable. Thus, full employment was considered the main goal of monetary policy.
- 5. Economic Growth:** Economic growth is the process whereby the real per capita income of a country increases over a long period of time.
- 6. Equilibrium in the Balance of Payments:** Equilibrium in the balance of payments is another objective of monetary policy which emerged significantly in the post-war years.

7. International Economics

1. Trade between two countries is known as trade
a) External b) Internal c) Inter-regional d) Home
2. Which of the following factors influence trade?
 a) The stage of development of a product b) The relative price of factors of productions.
 c) Government. **d) All of the above.**
3. International trade differs from domestic trade because of
 a) Trade restrictions b) Immobility of factors c) Different government policies **d) All the above**
4. In general, a primary reason why nations conduct international trade is because
 a) Some nations prefer to produce one thing while others produce another
b) Resources are not equally distributed among all trading nations
 c) Trade enhances opportunities to accumulate profits
 d) Interest rates are not identical in all trading nations
5. Which of the following is a modern theory of international trade?
 a) absolute cost b) comparative cost **c) Factor endowment theory** d) none of these
6. Exchange rates are determined in
 a) money market **b) foreign exchange market** c) stock market d) capital market

7. Exchange rate for currencies is determined by supply and demand under the system of

- a) Fixed exchange rate **b) Flexible exchange rate** c) Constant d) Government regulated

8. Net export equals

- a) Export x Import b) Export + Import **c) Export – Import** d) Exports of services only

9. Who among the following enunciated the concept of single factorial terms of trade?

- a) Jacob Viner** b) G.S. Donens c) Taussig d) J.S. Mill

10. Terms of Trade of a country show

- a) Ratio of goods exported and imported b) Ratio of import duties
c) Ratio of prices of exports and imports d) Both (a) and (c)

11. Favourable trade means value of exports are Then that of imports.

- a) More** b) Less c) More or Less d) Not more than

12. If there is an imbalance in the trade balance (more imports than exports), it can be reduced by

- a) decreasing customs duties b) increasing export duties
c) stimulating exports d) stimulating imports

13. BOP includes

- a) visible items only b) invisible items only
c) both visible and invisible items d) merchandise trade only

14. Components of balance of payments of a country includes

- a) Current account** b) Official account c) Capital account **d) All of above**

15. In the case of BOT,

- a) Transactions of goods are recorded.** b) Transactions of both goods and services are recorded
c) Both capital and financial accounts are included. d) All of these

16. Tourism and travel are classified in which of balance of payments accounts?

- a) merchandise trade account **b) services account**
c) unilateral transfers account d) capital account

17. Cyclical disequilibrium in BOP occurs because of

- a) Different paths of business cycle.
b) The income elasticity of demand or price elasticity of demand is different.
c) long-run changes in an economy **d) Both (a) and (b).**

18. Which of the following is not an example of foreign direct investment?

- a) the construction of a new auto assembly plant overseas
b) the acquisition of an existing steel mill overseas
c) the purchase of bonds or stock issued by a textile company overseas
d) the creation of a wholly-owned business firm overseas

19. Foreign direct investments not permitted in India

- a) Banking **b) Atomic energy** c) Pharmaceutical d) Insurance

20. Benefits of FDI include, theoretically

- a) Boost in Economic Growth** b) Increase in the import and export of goods and services
c) Increased employment and skill levels **d) All of these**

2 marks

21. What is International Economics?

International Economics is that branch of economics which is concerned with the exchange of goods and services between two or more countries.

22. Define international trade.

It refers to the exchange of goods and services within the political and geographical boundaries of a nation.

23. State any two merits of trade.

- i. Trade is one of the powerful forces of economic integration.
- ii. It brings foreign exchange to our country.

24. What is the main difference between Adam Smith and Ricardo with regard to the emergence of foreign trade?**Adam Smith**

International trade was an absolute cost advantage

David Ricardo

A country can gain from trade when it produces at relatively lower costs.

25. Define Terms of Trade.

1. Terms of Trade is the rate at which the goods of one country are exchanged for goods of another country.
2. It is expressed as the relation between export prices and import prices.

26. What do you mean by balance of payments?

BoP is a systematic record of a country's economic and financial transactions with the rest of the world over a period of time.

27. What is meant by Exchange Rate?

It is the price paid in the home currency for a unit of foreign currency that is the rate at which one currency is exchanged for another currency.

3 Marks**28. Describe the subject matter of International Economics**

- i. **Pure theory of trade:** This explains the causes for foreign trade, volume of trade, balance of trade and payments.
- ii. **Policy issues :** It covers the policy issues like a method of regulating trade, use of taxation, foreign aid, FDI and disequilibrium in the balance of payments.
- iii. **International cartels and trade Blocs:** It deals with the economic integration in the form of customs unions, monetary unions and the operation of MNCs.

29. Compare the Classical Theory of international trade with Modern Theory of International trade.

S.No	Classical Theory of International Trade	Modern Theory of International Trade
1.	It explains the phenomenon of international trade on the basis of the labour theory of value.	It explains the phenomenon of international trade on the basis of the general theory of value.
2.	Labour	Labour and capital
3.	It attributes the differences in the comparative costs to differences in the productive efficiency of workers in the two countries.	It attributes the differences in comparative costs to the differences in factor endowments in the two countries.

30. Explain the Net Barter Terms of Trade and Gross Barter Terms of Trade.

S.No	Net Barter Terms of Trade	Gross Barter Terms of Trade.
1.	The ratio between the prices of exports and of imports. It is named by Viner as the 'commodity terms of trade.	It is an index of the relationship between the total physical quantity of imports and the total physical quantity of exports.
2.	$T_n = (P_x/P_m) \times 100$	$T_g = (Q_m/Q_x) \times 100$

31. Distinguish between Balance of Trade and Balance of Payments.

S.No	Balance of Trade	Balance of Payments
1.	<i>It refers to the total value of the country's exported commodities and imported commodities</i>	<i>It is a systematic record of a country's economic and financial transactions with the rest of the world over a period</i>
2.	It can be favourable, unfavourable or balance	Both receipts and payment sides should be tallies.
3.	<i>It is a component of the current account of the balance of payment</i>	<i>Its components are the Current account and Capital account.</i>

32. What are import quotas?

- Import quota is a quantitative limit fixed on the import of some type of goods.
- It may be fixed either in terms of quantity or the value of the product.
- This is imposed to conserve foreign exchange or protect domestic consumption.

33. Write a brief note on the flexible exchange rate.

- It is also known as the floating exchange rate
- Under this system exchange rates are freely determined in an open market by the market forces of demand and supply
- Market prices that vary day to day.

34. State the objectives of Foreign Direct Investment

- Sales Expansion
- Acquisition of resources
- Diversification
- Minimization of competitive risk.

5.Marks**35. Discuss the difference between Internal Trade and international trade**

S.N.	Internal Trade	International Trade
1.	<i>Trade takes place between different individuals and firms within the same nation.</i>	<i>Trade takes place between different individuals and firms in different countries.</i>
2.	<i>Labour and capital move freely from one region to another.</i>	<i>Labour and capital do not move easily from one nation to another.</i>

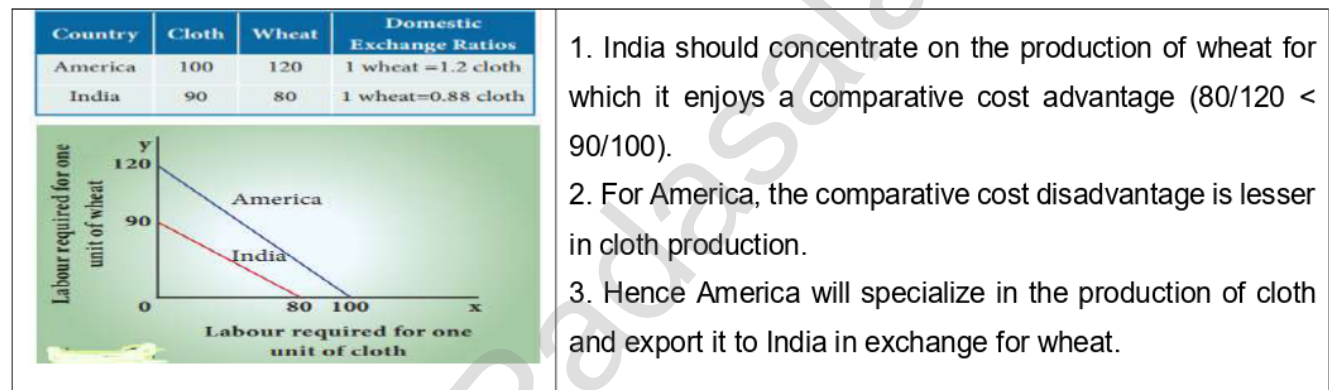
3.	There will be a free flow of goods and services since there are no restrictions.	Goods and services do not easily move from one country to another since there are a number of restrictions like tariffs and quotas.
4.	There is only one common currency.	There are different currencies.
5.	The physical and geographical conditions of a country are more or less similar.	There are differences in the physical and geographical conditions of the two countries.

36. Explain briefly the Comparative Cost Theory.

According to Ricardo, a country can gain from trade when it produces at relatively lower costs. Even when the country enjoys an absolute advantage in both goods, the country would specialize in the production and export of those goods which are relatively more advantageous.

Assumptions

1. There are only two nations and two commodities
2. Labour is the only element of the cost of production.
3. All labourers are of equal efficiency.
4. Labour is perfectly mobile within the country but perfectly immobile between countries
5. Production is subject to the law of constant returns.



4. With trade, India can get 1 unit of cloth and 1 unit of wheat by using its 160 labour units.
5. In the absence of trade for getting this benefit, India will have to use 170 units of labour.
6. America also gains from this trade, with trade America can get 1 unit of cloth and one unit of wheat by using its 200 units of labour.
7. Otherwise, America will have to use 220 units of labour for getting 1 unit of cloth and 1 unit of wheat.

Criticisms

1. Labour cost is a small portion of the total cost. Hence, the theory based on labour cost is unrealistic.
2. Labourers in different countries are not equal in efficiency

37. Discuss the Modern Theory of International Trade.

The modern theory of international trade explains the causes such as comparative cost differences.

- i) difference in the endowments of factors of production between countries, and
- ii) differences in the factor proportions required in production.

Assumptions

1. There are two countries, two commodities and two factors. (2x2x2 model)
2. Countries differ in factor endowments.
3. Commodities are categorized in terms of factor intensity.



Explanation: According to Heckscher - Ohlin, "a capital-abundant country will export the capital-intensive goods, while the labour-abundant country will export the labour-intensive goods". A factor is regarded as abundant or scarce in relation to the quantum of other factors.

Particulars	India	America
Supply of Labour	50	24
Supply of Capital	40	30
Capital-Labour Ratio	40/50 = 0.8	30/24 = 1.25

even though India has more capital in absolute terms, America is more richly endowed with capital because the ratio of capital in India is 0.8 which is less than that in America where it is 1.25.

**Limitations**

1. Factor endowment of a country may change over time.
2. The efficiency of the same factor may differ in the two countries.

38. Explain the types of Terms of Trade given to Vinner

This type was developed by Taussig in the year 1927. The ratio of export price and import is called net barter terms of trade. $T_n = (P_x/P_m) \times 100$.

1. The Single Factoral Terms of Trade: It represents the ratio of the export-price index to the import price index adjusted for changes in the productivity of a country's factors in the production of exports.

Symbolically, it can be stated as $T_f = (P_x/P_m)F_x$

T_f stands for single factoral terms of trade index.

F_x stands for productivity in exports

2. Double Factoral Terms of Trade: It is expressed as $T_{ff} = (P_x/P_m)(F_x/F_m)$ which takes into account the productivity in the country's exports, as well as the productivity of foreign factors here, F_m ; represents the import index

39. Bring out the components of the balance of payments account.

The credit and debit items are shown vertically in the BOP account of a country. Horizontally, they are divided into three categories, i.e.

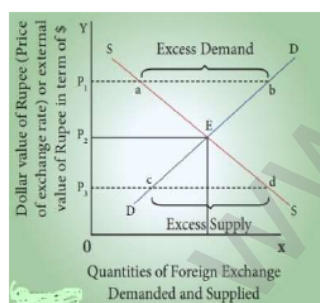
- a) **The Current Account:** It includes all international trade transactions of goods and services, international service transactions and international unilateral transfers (i.e. gifts and foreign aid).
- b) **The Capital Account:** Financial transactions consisting of direct investment and purchases of interest-bearing financial instruments, noninterest-bearing demand deposits and gold fall under the capital account.
- c) **The Official Reserve Assets Account:** Official reserve transactions consist of movements of international reserves by governments and official agencies to accommodate imbalances arising from the current and capital accounts.

40. Discuss the various types of disequilibrium in the balance of payment

- 1) **Cyclical Disequilibrium:** Cyclical disequilibrium occurs because of two reasons. First, two countries may be passing through different phases of the business cycle. Secondly, the elasticities of demand may differ between countries.
- b) **Secular Disequilibrium:** The secular or long-run disequilibrium in BOP occurs because of long-run and deep-seated changes in an economy as it advances from one stage of growth to another. In the initial stages of development, domestic investment exceeds domestic savings and imports exceed exports.
- c) **Structural Disequilibrium:** Structural changes in the economy may also cause balance of payments disequilibrium. Such structural changes include the development of alternative sources of supply, development of better substitutes, exhaustion of productive resources or changes in transport routes and costs

41. How the Rate of Exchange is determined? Illustrate with types

The equilibrium rate of exchange is determined in the foreign exchange market in accordance with the general theory of value, i.e., by the interaction of the forces of demand and supply.



In the above diagram, the Y axis represents the exchange rate, that is, the value of the rupee in terms of dollars. The X-axis represents the demand and supply of forex. E is the point of equilibrium where DD intersects SS. The exchange rate is P2

1. Fixed Exchange Rates: system agree to keep its currencies at a fixed rate as determined by the Government. Under the gold standard, the value of currencies was fixed in terms of gold.

2. Flexible Exchange Rates system, exchange rates are freely determined in an open market by market forces of demand and supply

42. Explain the relationship between foreign direct investment and economic development

1. FDI may help to increase the investment level and thereby the income and employment in the host country.
2. Direct foreign investment may facilitate the transfer of technology to the recipient country.

3. FDI may also bring revenue to the government of the host country when it taxes profits of foreign firms or gets royalties from concession agreements.
4. A part of the profit from a direct foreign investment may be ploughed back into the expansion, modernization or development of related industries.
5. It may kindle a managerial revolution in the recipient country through professional management and sophisticated management techniques.
6. Foreign capital may enable the country to increase its exports and reduce import requirements. And thereby ease BoP disequilibrium.
7. Foreign investment may also help increase competition and break domestic monopolies.
8. If FDI adds more value to output in the recipient country than the return on capital from foreign investment, then the social returns are greater than the private returns on foreign investment.
9. By bringing capital and foreign exchange FDI may help in filling the savings gap and the foreign exchange gap in order to achieve the goal of national economic development
10. Foreign investments may stimulate domestic enterprises to invest in ancillary industries in collaboration with foreign enterprises.

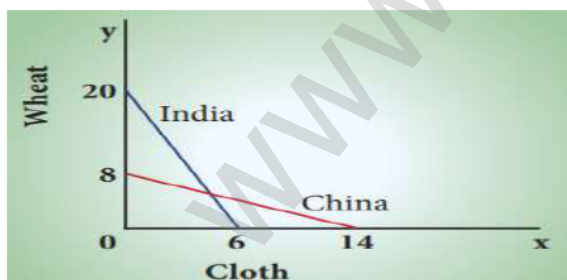
43. Explain Adam smith theory of Absolute Cost Advantage

Adamsmith argued that all nations can be benefitted when there is free trade and specialisation in terms of their absolute cost advantage.

Trade between two countries would be mutually beneficial when one country produces a commodity at an absolute cost advantage over the other country which in turn produces another commodity at an absolute cost advantage over the first country.

Assumptions

1. There are two countries and two commodities (2 x 2 model).
2. Labour is the only factor of production.
3. Labour units are homogeneous.
4. There is no transport cost.



Country	India	China
(Output per unit of labour)		
Wheat	20	8
Cloth	6	14

it is clear that India has an absolute advantage in the production of wheat over China and China has an absolute advantage in the production of cloth over India.

Therefore, India should specialize in the production of wheat and import cloth from China. China should specialize in the production of cloth and import wheat from India.

This kind of trade would be mutually beneficial to both India and China

8. International Economic Organizations

1. International Monetary Fund was an outcome of
a) Pandung Conference b) Dunkel Draft **c) Bretton Woods Conference** d) Doha Conference
2. International Monetary Fund is having its headquarters at
a) Washington D.C. b) New York c) Vienna d) Geneva
3. IBRD is otherwise called
a) IMF **b) World Bank** c) ASEAN d) International Finance Corporation
4. The other name for Special Drawing Rights is
a) Paper gold b) Quotas c) Voluntary Export Restrictions d) None of these
5. The organization which provides long-term loan is
a) World Bank b) International Monetary Fund c) World Trade Organisation d) BRICS
6. Which of the following countries is not a member of SAARC?
a) Sri Lanka **b) Japan** c) Bangladesh d) Afghanistan
7. International Development Association is an affiliate of
a) IMF **b) World Bank** c) SAARC d) ASEAN
8. ----- relates to patents, copyrights, trade secrets, etc.,
a) TRIPS b) TRIMS c) GATS d) NAMA
9. The first ministerial meeting of WTO was held at
a) Singapore b) Geneva c) Seattle d) Doha
10. ASEAN meetings are held once in every _____ years
a) 2 **b) 3** c) 4 d) 5
11. Which of the following is not the member of SAARC?
a) Pakistan b) Sri Lanka c) Bhutan **d) China**
12. SAARC meets once in ----- years.
a) 2 b) 3 c) 4 d) 5
13. The headquarters of ASEAN is
a) Jakarta b) New Delhi c) Colombo d) Tokyo
14. The term BRIC was coined in
a) 2001 b) 2005 c) 2008 d) 2010
15. ASEAN was created in
a) 1965 **b) 1967** c) 1972 d) 1997
16. The Tenth BRICS Summit was held in July 2018 at
a) Beijing b) Moscow **c) Johannesburg** d) Brasilia
17. New Development Bank is associated with
a) BRICS b) WTO c) SAARC d) ASEAN
18. Which of the following does not come under 'Six dialogue partners' of ASEAN?
a) China b) Japan c) India **d) North Korea**
19. SAARC Agricultural Information Centre (SAIC) works as a central information institution for agriculture related resources was founded on
a) 1985 **b) 1988** c) 1992 d) 1998
20. BENELUX is a form of
a) Free trade area b) Economic Union c) Common market **d) Customs union**

2 marks

21. Write the meaning of Special Drawing rights.

- i. It is also called paper Gold
- ii. They are a form of international reserves created by IMF in 1969 to solve the problem of International Liquidity.

22. Mention any two objectives of ASEAN.

- i. To accelerate the economic growth, social progress and cultural development in the region
- ii. To promote the welfare of the people of south Asia and improve live quality rate.

23. Point out any two ways in which IBRD lends to member countries.

- i. It advances loans to its member and loans out of its own fund
- ii. Loans out of borrowed capital and loans through bank guarantees

24. Define Common Market.

A group formed by countries within a geographical area to promote duty-free trade and free movement of labour and capital among its member.

25. What is the Free trade area?

1. A region encompassing a trade bloc whose member countries have signed a free-trade agreement
2. Such agreements involve cooperation between at least two countries to reduce trade barriers

26. When and where was SAARC Secretariat established?

The SARC Secretariat was established in Kathmandu on 16th January 1987

27. Specify any two affiliates of World Bank Group

- i. IFC- International Finance Corporation
- ii. IDA- International Development Association.

3. Marks

28. Mention the various forms of economic integration

1. **A free trade area** is the region encompassing a trade bloc whose member countries have signed a free-trade agreement (FTA). e.g. SAFTA, EFTA.
2. **A customs union** is defined as a type of trade block which is composed of a free trade area with no tariff among members and with a common external tariff. e.g. BENELUX
3. **Common market** is established through trade pacts. A group formed by countries within a geographical free movement of labour and capital among its members. e.g. European Common Market
4. **An economic union** is composed of a common market with a customs union. The participant countries have both common policies on product regulation, freedom of movement of goods, services and the factors of production and a common external trade policy.

29. What are trade blocks?

1. Some countries create business opportunities for themselves by integrating their economies in order to avoid unnecessary competition among them.
2. Trade blocks cover different kinds of arrangements between or among countries for mutual benefit.
3. Economic integration takes the form of a Free Trade Area, Customs Union, Common Market and Economic Union.

30. Mention any three lending programmes of IMF.

- (i) **Basic Credit Facility:** The IMF provides financial assistance to its member nations to overcome their temporary difficulties relating to the balance of payments.

(ii) **Extended Fund Facility:** Under this arrangement, the IMF provides an additional borrowing facility of up to 140% of the member's quota, over and above the basic credit facility.

(iii) **Compensatory Financing Facility:** In 1963, IMF established a compensatory financing facility to provide additional financial assistance to the member countries, particularly primary producing countries facing a shortfall in export earnings.

31. What is a Multilateral Agreement?

1. It is a multi-national legal or trade agreement is a trade agreement between Three or more nations.
2. The agreements reduce tariffs and make it easier for businesses to import and export.
3. Since they are among many countries, they are difficult to negotiate.

32. Write the agenda of BRICS Summit, 2018.

South Africa hosted the 10th BRICS summit in July 2018. The agenda for BRICS summit 2018 includes 1. Inclusive growth, 2. Trade issues, 3. Global governance 4. Shared Prosperity, and 5. International peace and security.

33. State briefly the functions of SAARC.

- a. Maintenance of the cooperation in the Region
- b. Prevention of common problems associated with the member nations.
- c. Ensuring strong relationships among the member nations.
- d. Removal of poverty through various packages of programmes.
- e. Prevention of terrorism in the region.

34. List out the achievement of ASEAN.

The main achievement of ASEAN has been the maintenance of an uninterrupted period of peace and stability during which the individual member countries have been able to concentrate on promoting rapid and sustained economic growth and modernization

ASEAN's modernization efforts have brought about changes in the region's structure of production.

These developments have advanced ASEAN members' efforts to attain the status of newly-industrializing economies.

5 Marks

35. Explain the objectives of IMF

- i) To promote international monetary cooperation among the member nations.
- ii) To facilitate faster and balanced growth of international trade.
- iii) To ensure exchange rate stability by curbing competitive exchange depreciations.
- iv) To eliminate or reduce exchange controls imposed by member nations.
- v) To establish multilateral trade and payment system in respect of current transactions instead of bilateral trade agreements.
- vi) To promote the flow of capital from developed to developing nations.
- vii) To solve the problem of international liquidity

36. Bring out the functions of the World Bank.

- 1. Investment for productive purposes:** It performs the function of assisting in the reconstruction and development of territories of member nations
- 2. Balanced growth of international trade** Promoting the long-range balanced growth of trade at the international level and maintaining equilibrium in BOPs of member nations.
- 3. Provision of loans and guarantees** Arranging the loans or providing guarantees on loans by various other channels so as to execute important projects.
- 4. Promotion of foreign private investment** The promotion of private foreign investment by means of guarantees on loans and other investments made by private investors.
- 5. Technical services** The World Bank facilitates different kinds of technical services to the member countries through Staff colleges and experts.

37. Discuss the role of WTO in India's socio-economic development

1. By reducing tariff rates on raw materials, components and capital goods, it was able to import more for meeting its developmental requirements. India's imports go on increasing.
2. India gets market access in several countries without any bilateral trade agreements
3. Advanced technology has been obtained at a cheaper cost.
4. India is in a better position to get quick redressal from trade disputes.
5. The Indian exporters benefited from wider market information

38. Write a note on a) SAARC b) BRICS**a) SAARC**

- i) The South Asian Association for Regional Co-operation (SAARC) is an organisation of South Asian nations, which was established on 8 December 1985 for the promotion of economic and social progress, cultural development within the South Asia region
- ii) The SAARC Group comprises Bangladesh, Bhutan, India, The Maldives, Nepal, Pakistan and Sri Lanka. In April 2007, Afghanistan became its eighth member.
- iii) The basic aim of the organisation is to accelerate the process of economic and social development of member states through joint action in the agreed areas of cooperation.
- iv) The SAARC Secretariat was established in Kathmandu (Nepal) on 16th January 1987. The first SAARC summit was held in Dhaka in the year 1985.

b) BRICS

- i) BRICS is the acronym for an association of five major emerging national economies: **Brazil, Russia, India, China and South Africa.**
- ii) Originally the first four were grouped as "BRIC" before the induction of South Africa in 2010. The term 'BRIC' was coined in 2001.
- iii) Its headquarters is in **Shanghai, China.** The New Development Bank (NDB) formerly referred to as the BRICS Development Bank was established by the BRICS States.
- iv) The BRICS countries make up 21 % of the global GDP. They have increased their share of global GDP threefold in the past 15 years.
- v) The BRICS are home to 43 % of the world's population.

39. Elaborate on the WTO Agreements in detail

Agreement on TRIPs

- i) Intellectual Property Rights include copyright, trademarks, patents, geographical indications, trade secrets, industrial designs, etc.
- ii) TRIPs Agreement provides for granting product patents instead of process patents.
- iii) The period of protection will be 20 years for patents, 50 years for copyrights, 7 years for trade marks and 10 years for layout designs.

Agreement on TRIMs: TRIMs are related to conditions or restrictions in respect of foreign investment in the country. It calls for introducing equal treatment for foreign companies on par with national companies.

GATS : GATS is the first multilateral set of rules covering trade in services like banking, insurance, transportation, communication, etc., All member countries are supposed to extend MFN status to all other countries without any discrimination. Transparency should be maintained by publishing all relevant laws and regulations regarding services

MFA : The multi-fibre agreement governed the world trade in textiles and garments since 1974.

It imposed quotas on the export of textiles by developing nations to developed countries. This quota system was to be phased out over a period of ten years.

AoA: Agriculture was included for the first time under GATT. The important aspects of the agreement are Tariffication, Tariff cuts and Subsidy reduction

9.Fiscal Economics

1. The modern state is
 - a) Laissez-faire state
 - b) Aristocratic state
 - c) **Welfare state**
 - d) Police state
2. One of the following is NOT a feature of private finance
 - a) Balancing of income and expenditure
 - b) Secrecy
 - c) Saving some part of income
 - d) **Publicity**
3. The tax possesses the following characteristics
 - a) Compulsory
 - b) No quid pro quo
 - c) Failure to pay is offence
 - d) **All the above**
4. Which of the following canons of taxation was not listed by Adam Smith?
 - a) Canon of equality
 - b) Canon of certainty
 - c) Canon of convenience
 - d) **Canon of simplicity**
5. Consider the following statements and identify the correct ones.
 - i. Central government does not have exclusive power to impose tax which is not mentioned in state or concurrent list.
 - ii. The Constitution also provides for transferring certain tax revenues from union list to states.
 - a) i only
 - b) **ii only**
 - c) both
 - d) none
6. GST is equivalence of
 - a) **Sales tax**
 - b) Corporation tax
 - c) Income tax
 - d) Local tax
7. The direct tax has the following merits except
 - a) equity
 - b) **convenient**
 - c) certainty
 - d) civic consciousness
8. Which of the following is a direct tax?
 - a) Excise duty
 - b) **Income tax**
 - c) Customs duty
 - d) Service tax
9. Which of the following is not a tax under Union list?
 - a) Personal Income Tax
 - b) Corporation Tax
 - c) **Agricultural Income Tax**
 - d) Excise duty
10. "Revenue Receipts" of the Government do not include
 - a) Interest
 - b) Profits and dividends
 - c) Recoveries and loans
 - d) **Rent from property**

11. The difference between revenue expenditure and revenue receipts is

- a) **Revenue deficit** b) Fiscal deficit c) Budget deficit d) Primary deficit

12. The difference between total expenditure and total receipts including loans and other liabilities is called

- a) **Fiscal deficit** b) Budget deficit c) Primary deficit d) Revenue deficit

13. The primary purpose of deficit financing is

- a) **Economic development** b) Economic stability c) Economic equality d) Employment generation

14. Deficit budget means

- a) An excess of government's revenue over expenditure
b) An excess of government's current expenditure over its current revenue
c) **An excess of government's total expenditure over its total revenue**
d) None of above

15. Methods of repayment of public debt is

- a) Conversion b) Sinking fund c) Funded debt d) **All these**

16. Conversion of public debt means exchange of

- a) new bonds for the old ones b) **low interest bonds for higher interest bonds**
c) Long term bonds for short term bonds d) All the above

17. The word budget has been derived from the French word "bougette" which means

- a) **A small bag** b) An empty box c) A box with papers d) None of the above

18. Which one of the following deficits does not consider borrowing as a receipt?

- a) Revenue deficit b) Budgetary deficit c) **Fiscal deficit** d) Primary deficit

19. Finance Commission determines

- a) The finances of Government of India b) **The resources transfer to the states**
c) The resources transfer to the various departments d) None of the above

20. Consider the following statements and identify the right ones.

i. The finance commission is appointed by the President ii. The tenure of the Finance Commission is five years

- i only b) ii only c) **both** d) none

2 Marks

21. Define public finance.

Public finance is an investigation into the nature and principles of the state revenue and expenditure". -Adam Smith.

22. What is public revenue?

It is the methods of raising public revenue such as tax and non-tax, the principles of taxation, rates of taxation, impact, incidence and shifting of taxes and their effects.

23. Differentiate tax and fee.

Tax is a compulsory payment by the citizens and fees are charged by the public authorities for rendering service to the citizens.

24. Write a short note on a zero-based budget.

It involves a fresh evaluation of expenditure in the Government budget, assuming it as a new item. Indian Government presented ZBB first in 1987-88.

25. Give two examples of direct tax.

The tax levied on a person's income and wealth which is paid directly to the Government is called direct tax. Example: i. Income tax ii. Wealth Tax

26. What are the components of GST?

1. CGS : Collected by the Central Government on an intra-state sale
2. SGST: Collected by the State Government an intra-state sale
- 3.IGST : Collected by the Central Government on an intra-state sale

27. What do you mean by public debt?

The debt is the form of promises by the Treasury to pay to the holders of these promises a principal sum and in most instances interest on the principal.- Philip E. Taylor.

3 Marks**28. Describe the Canons of Taxation.**

- i)**Canon of ability:** The Government should impose tax in such a way that the people have to pay taxes according to their ability. That is rich will a higher tax when compared to the poor.
- ii)**Canon of Certainty:** The Government must ensure that there is no uncertainty regarding the rate of tax or the time of payment.
- iii)**Canon of Convenience:** The method of tax collection and the timing of the tax payment should suit the convenience of the people.
- iv)**Canon of Economy:** The Government has to spend money for collecting taxes, for example, salaries are given to the persons who are responsible for collecting taxes.

29. Mention any three similarities between public finance and private finance.

- 1)**Rationality:** Maximization of welfare and least cost factor combination.
- 2)**Limit to borrowing:** Both have to apply restraint with regard to borrowing, there is a limit to deficit financing by the state also.
- 3)**Resource utilization:** Both the private and public sectors have limited resources at their disposal. So both attempt to make optimum use of resources.
- 4)**Administration:** The effectiveness of measures of both Government and private depends on administrative machinery. If it is insufficient and corrupt, it will result in wastages and losses.

30. What are the functions of the modern state?

1. **Defense:** The government has to maintain adequate police and military forces and render protective services.
2. **Judiciary:** Government should provide an adequate judicial structure to render justice to all classes of citizens.
3. **Enterprises:** The regulation and control of private enterprise fall under the purview of the modern State.
4. **Social Welfare:** It is the duty of the state to make provisions for education and social security.
5. **Infrastructure:** The modern States have to build the base for economic development.

31. State any three characteristics of taxation.

- i. A tax is a compulsory payment made to the government. Refusal of tax is not possible.
- ii. There is no quid pro quo between a taxpayer and public authorities.
- iii. Every tax involves some sacrifice on part of the taxpayer.
- iv. A tax is not levied as a fine or penalty for breaking the law.

32. Point out any three difference between direct and indirect tax.

Direct tax	Indirect tax
Tax is levied on the person's income and wealth	Tax is charged to the person who purchases the goods and services.
Paid directly to the government	Paid indirectly to the government
The ultimate burden of tax payment	The ultimate burden of tax payment to the purchaser.
Eg : Income tax	Eg : GST

33. What is the primary deficit?

A primary deficit is equal to a fiscal deficit minus interest payments. It shows the real burden of the government and it does not include the interest burden on loans taken in the past.

Thus, the primary deficit reflects the borrowing requirements of the government exclusive of interest payments. $\text{Primary Deficit} = \text{Fiscal deficit} - \text{Interest payment}$

34. Mention any three methods of redemption of public debt.

The process of repaying the public is called redemption.

- i) **Sinking fund:** According to this method the government will credit a fixed amount of this fund and when it matures, it is paid along with the interest.
- ii) **Conversion:** Old loan is converted into a new one and the interest is reduced.
- iii) **Budgetary surplus:** whenever there is a budgetary surplus, it can be utilized to pay the debt.

5. Marks**35 Explain the scope of public finance.**

1. **Public Revenue:** It deals with the methods of raising public revenue such as tax and non-tax, the principles of taxation, rates of taxation, impact, incidence and shifting of taxes and their effects.
2. **Public Expenditure** This part studies the fundamental principles that govern the Government expenditure, effects of public expenditure and control of public expenditure.
3. **Public Debt** It deals with the methods of raising loans from internal and external sources. The burden, effects and redemption of public debt fall under this head.
4. **Financial Administration** This part deals with the study of the different aspects of a public budget. The budget is the Annual master financial plan of the Government. The various objectives and steps in preparing a public budget, passing or sanctioning, allocation evaluation and auditing fall within financial administration.
5. **Fiscal Policy** Taxes, subsidies, public debt and public expenditure are the instruments of fiscal policy.

36. Bring out the merits of indirect taxes over direct taxes.

- 1) **Wider Coverage** All consumers, whether they are rich or poor, have to pay indirect taxes. For this reason, it is said that indirect taxes can cover more people than direct taxes.
- 2) **Equitable** The indirect tax satisfies the canon of equity when a higher tax is imposed on luxuries used by rich people.
- 3) **Economical** Cost of the collection is less as producers and retailers collect taxes and pay to the Government. The traders act as honorary tax collectors.
- 4) **Checks harmful consumption** The Government imposes indirect taxes on those commodities which are harmful to health e.g. tobacco, liquor etc. They are known as sin taxes.
- 5) **Convenient** Indirect taxes are levied on commodities and services. Whenever consumers make a purchase, they pay taxes.

37. Explain the methods of debt redemption.

The Process of repaying a public debt is called redemption

1. **Sinking fund:** According to this method the government will credit a fixed amount of this fund and when it matures, it is paid along with the interest.
2. **Conversion:** Old loan is converted into a new one and the interest is reduced.
3. **Budgetary surplus:** whenever there is a budgetary surplus, it can be utilized to pay the debt.
4. **Terminal Annuity:** The government will pay the debts on the basis of terminal annuity in equal instalments.
5. **Repudiation:** It is the easiest way for the Government to get rid of the burden of payment of a loan during a crisis.
6. **Reduction in Rate of Interest:** It is the compulsory reduction in the rate of interest, during a time of financial crisis.
7. **Capital Levy:** When the Government imposes a levy on the capital assets owned by an individual or any institution, it is called a capital levy, especially war period debt obligation.

38. State and explain instruments of fiscal policy.

- i) **Taxation:** Taxes transfer income from the people to the Government. Taxes are either direct or indirect. An increase in tax reduces disposable income. So taxation should be raised to control inflation. During a depression, taxes are to be reduced.
- ii) **Public Expenditure:** Public expenditure raises wages and salaries of the employees and thereby the aggregate demand for goods and services. Hence public expenditure is raised to fight the recession and reduced to control inflation.
- iii) **Public debt:** When Government borrows by floating a loan, there is a transfer of funds from the public to the Government. At the time of interest payment and repayment of public debt, funds are transferred from Government to public

39. Explain the principles of federal finance. (any 5 points)

- 1. Principle of Independence:** The Government should have separate sources of revenue, and authority to levy taxes, borrow money and meet the expenditure.
- 2. Principle of Equity:** The resources should be distributed among the different states so that each state receives a fair share of the revenue.
- 3. Principle of Uniformity:** In a federal system, each state should contribute equal tax payments for federal finance.
- 4. Principle of Adequacy:** Central and State should be adequate to carry out their functions effectively. here adequacy must be decided with reference to both currents as well as future needs.
- 5. Principle of Fiscal Access:** The resources should grow with the increase in the responsibilities of the Government.
- 6. Principle of Integration and coordination.** This should be done in such a way to promote the overall economic development of the country.
- 7. Principle of Efficiency.** No one should be taxed more than once in a year. Double taxation should be avoided.
- 8. Principle of Administrative Economy:** The cost of collection should be at the minimum level and the major portion of revenue should be made available for the other expenditure outlays of the Governments.
- 9. Principle of Accountability:** Each Government should be accountable to its own legislature for its financial decisions.

40. Describe the various types of deficits in the budget.

A deficit budget is a situation where budget receipts are less than budget expenditures.

i. Revenue Deficit: The excess of the government revenue expenditure over revenue receipts. A revenue deficit implies that the government is living beyond its means to conduct day-to-day operations.

Revenue Deficit = Total Revenue Expenditure – Total Revenue Receipts (RE-RR>0) Budget Deficit: It is the difference between total receipts and total expenditure.

ii. Budget deficit = Total receipts – Total Expenditure (TR-TE)

iii. Fiscal Deficit: Budget deficit + Government's market borrowings and liabilities

iv. Primary Deficit: Primary deficit is equal to fiscal deficit minus interest payments. It shows the real burden of the government and it does not include the interest burden on loans taken in the past. Thus, the primary deficit reflects the borrowing requirement of the government exclusive of interest payments.

Primary Deficit = Fiscal deficit – Interest payment

41. What are the reasons for the recent growth in public expenditure? (any 5 points)

- 1. Population Growth:** The population of India has increased. The growth in population requires massive investment in health and education, law and order, etc.
- 2. Defence Expenditure:** There has been an enormous increase in defence expenditure in India during the planning period. The defence expenditure has been increasing tremendously due to the modernisation of defence equipment.

- 3. Government Subsidies:** The Government of India has been providing subsidies on a number of items such as food, fertilizers, interest on priority sector lending, exports, education, etc.
- 4. Debt Servicing:** The government has been borrowing heavily both from internal and external sources, as a result, the government has to make huge amounts of repayment towards debt servicing.
- 5. Development Projects:** The government has been undertaking various development projects such as irrigation, iron and steel, heavy machinery, power, telecommunications, etc. The development projects involve huge investments.
- 6. Urbanisation:** The increase in urbanization requires heavy expenditure on law and order, education and civic amenities.

10.Environmental Economics

- The term environment has been derived from a French word -----
a) Environ b) Environs **c) Environia** d) Envir
- The word biotic means environment
a) living b) non-living c) physical d) None of the above
- Ecosystem is smallest unit of
a) Ionosphere b) Lithosphere **c) Biosphere** d) Mesosphere
- Who developed Material Balance Models?
a) Thomas and Picardy **b) AlenKneese and R.V. Ayres**
c) Joan Robinson and J.M. Keynes d) Joseph Stiglitz and Edward Chamberlin
- Environmental goods are -----
a) Market goods **b) Non-market goods** c) Both d) None of the above
- In a pure public good, consumption is -----
a) Rival **b) Non-rival** c) Both d) None of the above
- One of the most important market failures is caused by -----
a) Positive externalities **b) Negative externalities** c) Both d) None of the above
- The common source of outdoor air pollution is caused by combustion processes from the following
a) Heating and cooking **b) Traditional stoves** c) Motor vehicles d) All the above
- The major contributor of Carbon monoxide is
a) Automobiles b) Industrial process c) Stationary fuel combustion d) None of the above
- Which one of the following causes of global warming?
a) Earth gravitation force b) Oxygen c) Centripetal force **d) Increasing temperature**
- Which of the following is responsible for protecting humans from harmful ultraviolet rays?
a) UV-A b) UV-C **c) Ozone layer** d) None of the above
- Global warming also refers to as
a) Ecological change b) Climate Change c) Atmosphere change **d) None of the above**
- Which of the following is the anticipated effect of Global warming?
a) Rising sea levels **b) Changing precipitation** c) Expansion of deserts d) All of the above
- The process of nutrient enrichment is termed as
a) Eutrophication b) Limiting nutrients c) Enrichment d) Schistosomiasis
- Primary cause of Soil pollution is -----
a) Pest control measures b) Land reclamation c) Agricultural runoff **d) Chemical fertilizer**

16. Which of the following is main cause for deforestation?

- a) **Timber harvesting industry** b) Natural afforestation c) Soil stabilization d) Climate stabilization

17. Electronic waste is commonly referred as -----

- a) solid waste b) composite waste **c) e-waste** d) hospital waste

18. Acid rain is one of the consequences of -----

- a) Air pollution **b) Water Pollution** c) Land pollution d) Noise pollution

19. Sustainable Development Goals and targets are to be achieved by -----

- a) 2020 b) 2025 **c) 2030** d) 2050

20. Alkali soils are predominantly located in the ----- plains?

- a) Indus-Ganga b) North-Indian c) Gangetic plains **d) All the above**

2 Marks

21. State the meaning of environment.

"All the conditions, circumstances, and influences surrounding and affecting the development of an organism or group of organisms".

22. What do you mean by ecosystem?

An ecosystem includes all living things in a given area, interacting with each other, and also with their non-living environments.

23. Mention the countries where per capita carbon dioxide emission is the highest in the world.

USA, Australia Canada, and Japan.

24. What are environmental goods? Give examples.

Environmental goods are non-market goods, including clean air, clean water, landscape, green transport infrastructure, public parks, urban parks, rivers, mountains, forests, and beaches.

25. What are the remedial measures to control noise pollution?

- | | |
|--|--|
| 1. Use of noise barriers | 2. Newer roadway for surface transport |
| 3. Traffic control | 4. Regulating times for heavy vehicles |
| 5. Installation of noise barriers in the workplace | 6. Regulation of Loudspeakers. |

26. Define Global warming.

It is the current increase in temperature on Earth's surface as well as its atmosphere

27. Specify the meaning of seed ball.

A seed ball is a seed that has been wrapped in soil materials usually a mixture of clay and compost then dried.

3 Marks

28. Brief the linkage between economy and environment.

1. Man's life is interconnected with various other living and non-living things. Life also depends on social, political, ethical, philosophical and other aspects of the economic system.
2. In fact, the life of human beings is shaped by their living environment.
3. The relationship between the economy and the environment is generally explained in the form of a "Material Balance Model".

29. Specify the meaning of the material balance principle.

1. The material flow diagram implies that mass inputs must equal mass outputs for every process. Moreover, all resources extracted from the environment eventually become unwanted wastes and Pollutants.
2. Production of output by firms from inputs resulting in the discharge of solid, liquid and gaseous wastes.
3. Similarly, waste results from consumption activities by households.

30. Explain the different types of air pollution.

Indoor Air Pollution: It refers to toxic contaminants that we encounter in our daily lives in our homes, schools and workplaces. For example, cooking and heating solid fuels on open fires.

Outdoor Air Pollution: It refers to ambient air. The common sources of outdoor air pollution are caused by combustion processes from vehicles.

31. What are the causes of water pollution?

1. Discharge of sewage and wastewater,
2. Dumping of solid wastes
3. Discharge of industrial wastes
4. Oil spills
5. Acid rain
6. Global warming, Eutrophication.

32. State the meaning of E-waste.

Electronic waste which is commonly referred to as “e-waste” is the new by product of the Info-Tech society. It is a physical waste in the form of old discarded, end-of-life electronics. It includes a broad and growing range of electronic devices from large household appliances such as refrigerators, air conditioners, cellular phones, computers and other electronic goods”.

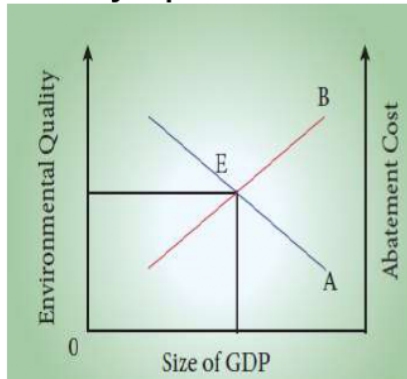
33. What is Land pollution? Mention the causes of Land Pollution.

Land pollution is defined as, “the degradation of land because of the disposal of waste on the land”. The causes are 1. Deforestation and soil erosion 2. Agricultural activities 3. Mining activities 4. Landfills 5. Industrialisation 6. Construction activities 7. Nuclear waste

34. Write a note on a) Acid rain b) Climate change

Climate Change: It refers to seasonal changes over a long period with respect to the growing accumulation of greenhouse gases in the atmosphere. Since the industrial revolution, there is an increase in the concentration of carbon dioxide in the atmosphere which creates global warming.

Acid rain: Acid rain is one of the consequences of air pollution. It occurs when emissions from factories, cars or heating boilers contact the water in the atmosphere. These emissions contain nitrogen oxides, Sulphur dioxide and Sulphur trioxide which when mixed with water becomes sulfurous acid, nitric acid and sulfuric acid.

35. Briefly explain the relationship between GDP growth and the quality of the environment.

Environmental quality is a set of properties and characteristics of the environment either generalized or local, as they impinge on human beings and other organisms. It is a measure of the condition of an environment relative to the requirements of one or more species and to any human need. Environmental quality has been continuously declining due to the capitalistic mode of functioning. The environment is a pure public good that can be consumed simultaneously by everyone and from which no one can be excluded.

A pure public good is one for which consumption is non-rival and from which it is impossible to exclude a consumer. Pure public goods pose a free-rider problem. As a result, resources are depleted. The contribution of nature to GDP as well as the depletion of natural resources are not accounted for the present system of National Income Enumeration.

36. Explain the concepts of externality and its classification

Definitions Externalities may be defined as “the cost or benefit imposed by the consumption and production activities of the individuals on the rest of the society not directly involved in these activity and towards which no payment is made”.

1. Externalities refer to external effects or spillover effects resulting from the act of production or consumption on third parties.

2. Externalities arise due to interdependence between economic units.

3. Beneficial externalities are called “positive externalities” and adverse are called “negative externalities”.

4. Positive Consumption Externality When some residents of a locality hire a private security agency to patrol their area, the other residents of the area also benefit from better security without bearing the cost.

5. Negative Consumption Externality A person smoking a cigarette gets may give satisfaction to that person, but this act causes hardship (dissatisfaction) to the non-smokers who are driven to passive smoking.

6. Positive Production Externality The ideal location for beehives is orchards while bees make honey, they also help in the pollination of apple blossoms. The benefits accrue to both producers.

7. Negative Production Externality It include pollution generated by a factory that imposes costs on others.

37. Explain the importance of sustainable development and its goals.

“Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs” it is crucial to harmonize three core elements such as **economic** growth, **social** inclusion and **environmental** protection. A set of 17 goals for the World’s future can be achieved before 2030 with three unanimous principles fixed by United Nations such as Universality, Integration and Transformation.

1. End Poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
3. Ensure healthy lives and promote well-being for all at all ages
4. Ensure inclusive and quality education for all and promote lifelong learning
5. Achieve gender equality and empower women and girls
6. Ensure access to water and sanitation for all
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote inclusive and sustainable economic growth, employment and decent work for all
9. Build resilient infrastructure, promote sustainable industrialization and foster innovation.
10. Reduce inequality within and among countries

11. Economic Development and Planning

1. "Redistribution with Growth" became a popular slogan which approach?
 - a) Traditional approach
 - b) New welfare-oriented approach**
 - c) Industrial approach
 - d) None of the above
2. Which is not the feature of economic growth?
 - a) Concerned with developed nations
 - b) Gradual change
 - c) Concerned with quantitative aspect
 - d) Wider concept**
3. Which among the following is a characteristic of underdevelopment?
 - a) Vicious circle of poverty**
 - b) Rising mass consumption
 - c) Growth of Industries
 - d) High rate of urbanization
4. The non-economic determinant of economic development
 - a) Natural resources
 - b) Human resource**
 - c) Capital formation
 - d) Foreign trade
5. Economic growth measures the -----
 - a) Growth of productivity
 - b) Increase in nominal income
 - c) Increase in output**
 - d) None of the above
6. The supply side vicious circle of poverty suggests that poor nations remain poor because
 - a) Saving remains low
 - b) Investment remains low
 - c) There is a lack of effective government
 - d) a and b above**
7. Which of the following plan has focused on the agriculture and rural economy?
 - a) People's Plan
 - b) Bombay Plan
 - c) Gandhian Plan**
 - d) Vishveshwarya Plan
8. Arrange the following plans in correct chronological order
 - a) People's Plan
 - b) Bombay Plan
 - c) Jawaharlal Nehru Plan
 - d) Vishveshwarya Plan
 Answer choices :
 - a) (i) (ii) (iii) (iv)
 - b) (iv) (iii) (ii) (i)**
 - c) (i) (ii) (iv) (iii)
 - d) (ii) (i) (iv) (iii)
9. M.N. Roy was associated with -----
 - a) Congress Plan
 - b) People's Plan**
 - c) Bombay Plan
 - d) None of the above
10. Which of the following country adopts indicative planning?
 - a) France**
 - b) Germany
 - c) Italy
 - d) Russia
11. Short-term plan is also known as-----
 - a) Controlling Plans**
 - b) De-controlling Plans
 - c) Rolling Plans
 - d) De-rolling Plans

12. Long-term plan is also known as ----

- a) Progressive Plans b) Non-progressive Plans
c) **Perspective Plans** d) Non-perspective Plans

13. The basic philosophy behind long-term planning is to bring-----changes in the economy?

- a) Financial b) Agricultural c) Industrial **d) Structural**

14. Sarvodaya Plan was advocated by-----

- a) Mahatma Gandhi **b) J.P. Narayan** c) S. N Agarwal d) M.N. Roy

15. Planning Commission was set up in the year -----

- a) 1950** b) 1951 c) 1947 d) 1948

16. Who wrote the book 'The Road to Serfdom'?

- a) Friedrich Hayek** b) H.R. Hicks c) David Ricardo d) Thomas Robert Malthus

17. Perspective plan is also known as----

- a) Short-term plan b) Medium-term plan **c) Long-term plan** d) None of the above

18. NITI Aayog is formed through-----

- a) Presidential Ordinance b) Allocation of business rules by President of India
c) Cabinet resolution d) None of the above

19. Expansion of NITI Aayog?

- a) National Institute to Transform India **b) National Institution for Transforming India**
b) National Institution to Transform d) India National Institution for Transforming India

20. The Chair Person of NITI Aayog is

- a) Prime Minister** b) President c) Vice – President d) Finance Minister

2 Marks

21. Define economic development

The increase in GNP is accompanied by a decline in the share of agriculture in output and employment while those of manufacturing and service sectors increase.

22. Mention the indicators of development.

i. Gross National Product ii. GNP Percapita iii. Welfare iv. Social Indicators.

23. Distinguish between economic growth and development

Sl.No	Economic Growth	Economic Development
1	Problems of Developed countries	Problems of Under-Developed Countries
2	Changes in gradual and steady	Changes in discontinuous and spontaneous

24. What is GNP?

The total market value of all final goods and services produced within a nation in a particular year, plus income earned by its citizens from the abroad minus income of non-residents located in that country.

25. Define economic planning.

According to Robins "Economic planning is collective control or suppression of private activities of production and exchange"

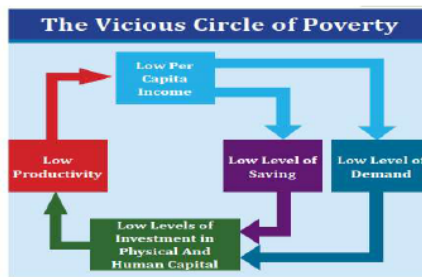
26. What are the social indicators of economic development?

- i. It is referred to as the basic and collective needs of the people
ii. The direct provision of basic needs such as health, education, etc.,

27. Write a short note on NITI Aayog

- i. National Institution for Transforming India was formed on 1st January 2015 by the union cabinet Resolution
ii. It has replaced the Planning commission from 13th August 2014

28. Elucidate the major causes of the vicious circle of poverty with a diagram



There are circular relationships known as the 'vicious circles of poverty on low production, low investment and low conception

For example, a poor man may not have enough to eat; being underfed, his health may be weak; being physically

weak, his working capacity is low. It operates both on the demand side and the supply side – the cause and effect are the same.

29. What are the non-economic factors determining development?

1. Human Resources 2. Technical Know-how 3. Political Freedom 4. Social Organization 5. Corruption-free administration 6. The desire for development 7. Moral, Ethical and Social values 8. Casino capitalism and 9. Patrimonial Capitalism.

30. How would you break the vicious circle of poverty?

1. Nurkse suggested the strategy of balanced growth. If the investment is made in several industries simultaneously the workers employed in various industries will become consumers of each other's products and will create demand for one another.

2. Balanced growth i.e. simultaneous investment in a large number of industries creates mutual demand. Thus, through the strategy of balanced growth, the vicious circle of poverty operating on the demand side of capital formation can be broken

31. Trace the evolution of economic planning in India.

1. Sir M. Vishveshwarya (1934): a prominent engineer and politician made his first attempt in laying the foundation for economic planning in India in 1934 through his book, "Planned Economy of India". It was a 10-year plan.

2. Jawaharlal Nehru (1938): set up the "National Planning Commission" by a committee but due to the changes in the political era and the second World War, it did not materialize.

3. Bombay Plan (1940): The 8 leading industrialists of Bombay presented the "Bombay Plan". It was a 15 Year Investment Plan.

4. S. N Agarwal (1944) gave the "Gandhian Plan" focusing on the agricultural and rural economy.

5. M.N. Roy (1945) drafted 'People's Plan'. It was aimed at the **mechanization** of agricultural production and distribution by the state only.

6. J.P. Narayan (1950) advocated the "Sarvodaya Plan" which was inspired by the Gandhian Plan and the idea of Vinoba Bhave. It gave importance not only to agriculture but encouraged small and cottage industries in the plan.

32. Describe the case for planning.

1. To accelerate and strengthen the market mechanism
2. To remove unemployment
3. To achieve balanced development
 - i. Development of Agriculture and Industrial Sector
 - ii. Development of Infrastructure
 - iii. Development of Money and Capital Markets

33. Distinguish between functional and structural planning.

Difference	Functional Planning	Structural Planning
Meaning	It refers to that planning seeks to remove Economics difficulties	It refers to a good deal of changes in the socioeconomic framework of the country
Approach	Attempt within the existing socio-economic framework	Attempt to change the economic structure Fundamentally
Nature	It is evolutionary	It is revolutionary
Scope	Narrow	Wider concept Development = Growth + Change

34. What are the functions of NITI Aayog? (Any three)

- 1. Cooperative and Competitive Federalism:** To enable the States to have active participation in the formulation of national policy.
- 2. Shared National Agenda:** To evolve a shared vision of national development priorities and strategies with the active involvement of States.
- 3. Decentralized Planning:** To restructure the planning process into a bottom-up model.
- 4. Vision and Scenario Planning:** To design medium and long-term strategic frameworks for India's future.
- 5. Network of Expertise:** To mainstream external ideas and expertise into government policies and programmes through collective participation.
- 6. Harmonization:** To facilitate harmonization of actions across different layers of government, especially when involving cross-cutting and overlapping issues across multiple sectors; through communication, coordination, collaboration and convergence amongst all the stakeholders.
- 7. Conflict Resolution:** To provide a platform for mutual consensus on intersectoral, inter-departmental, inter-state as well as centre-state issues for all speedy execution of the government programmes

5 Marks**35. Discuss the economic determinants of economic development.**

- 1. Natural Resource:** The principal factor affecting the development of an economy is the availability of natural resources. The existence of natural resources in abundance is essential for development.
- 2. Capital Formation:** Capital formation refers to the net addition to the existing stock of capital goods which are either tangible like plants and machinery or intangible like health, education and research. Capital formation helps to increase the productivity of labour and thereby production and income.
- 3. Size of the Market:** Large size of the market would stimulate production, increase employment and raise the National per capita income.

- 4. Structural Change:** Structural change refers to change in the occupational structure of the economy. Any economy which is predominantly agricultural tends to remain backward.
- 5. Financial System:** Financial system implies the existence of an efficient and organized banking system in the country.
- 6. Marketable Surplus:** Marketable surplus refers to the total amount of farm output cultivated by farmers over and above their family consumption needs. It raises the purchasing power, employment and output in other sectors of the economy.
- 7. Foreign Trade:** The country which enjoys a favourable balance of trade and terms of trade is always developed.
- 8. Economic System:** The countries which adopt free-market mechanisms (laissez-faire) enjoy better growth rates compared to controlled economies.

36. Describe different types of Planning.

i) Democratic Vs Totalitarian

Democratic Planning: People are associated at every step in the formulation and implementation of the plan

Totalitarian Planning: There is central control and direction of all economic activities in accordance with a single plan.

a) Centralized Vs Decentralized

Centralized: The entire planning process in a country is under a central planning Authority which formulates the Central plan.

Decentralized planning: local organizations and institutions formulate, adopt, execute and supervise the plan without interference by the central authorities.

ii) Planning by Direction Vs Inducement

Planning by direction, there is a central authority which plans, directs and orders the execution of the plan in accordance with pre-determined targets and priorities.

Planning by inducement, the people are induced to act in a certain way through various monetary and fiscal measures. If the planning authority wishes to encourage the production of a commodity, it can give subsidies to the firms.

a) Indicative Vs Imperative

Indicative planning is peculiar to mixed economies, the private sector and the public sector work together. Under this plan, the outline of the plan is prepared by the Government.

Under imperative planning, the state is all-powerful in the preparation and implementation of the plan. Once a plan is drawn up, its implementation is a matter of enforcement.

iii) Short, Medium and Longer

Short-term planning concerns the plans in a time period of 1 year - operational planning.

Medium-term planning is considered for a time period of 5 years - tactical planning.

Long-term planning is considered for a time period over 10 years - strategic planning

a) Financial Vs Physical

Financial planning refers to the technique of planning in which resources are allocated in terms of money

Physical planning pertains to the allocation of resources in terms of men, materials and machinery.

iv) Functional Vs Structural

Functional planning refers to that planning seeking to remove economic difficulties by directing all the planning activities within the existing economic and social structure.

Structural planning refers to a good deal of changes in the socio-economic framework of the country. This type of planning is adopted mostly in underdeveloped countries.

v.) Comprehensive Vs Partial

Comprehensive: General planning which concerns itself with the major issues for the whole economy is known as comprehensive planning

Partial Planning: partial planning is to consider only a few important sectors of the economy.

37. Bring out the arguments against planning.

1. Loss of freedom The absence of freedom in decision-making may act as an obstacle to economic growth. Regulations and restrictions are the backbones of a planned economy.

2. Elimination of Initiative Under centralized planning, there will be no incentive for initiatives and innovations. The absence of initiatives may affect progress in the following ways.

a. The absence of private ownership and profit motive discourages entrepreneurs from taking bold decisions and risk-taking.

b. As all enjoy equal rewards under a planned economy irrespective of their effort, efficiency and productivity, nobody is interested in undertaking new and risky ventures.

c. The bureaucracy and red-tapism which are the features of planned economy, cripple the initiative as they cause procedural delay and time loss.

3. High cost of Management No doubt the fruits of planning such as industrialization, social justice and regional balance are good.

4. Difficulty in advance calculations Price mechanism provides for the automatic adjustment among price, demand and supply in a Laissez Faire economy.

12. Introduction to statistical methods and econometrics

1. The word 'statistics' is used as.

- a) Singular. b) Plural **c) Singular and Plural.** d) None of above.

2. Who stated that statistics as a science of estimates and probabilities.

- a) Horace Secrist. b) R.A Fisher. c) Ya-Lun-Chou **d) Boddington**

3. Sources of secondary data are.

- a) Published sources. b) Unpublished sources
c) neither published nor unpublished sources. **d) Both (A) and (B)**

4. The data collected by questionnaires are

- a) Primary data.** b) Secondary data c) Published data. d) Grouped data.

5. A measure of the strength of the linear relationship that exists between two variables is called:

- a) Slope b) Intercept **c) Correlation coefficient** d) Regression equation

6. If both variables X and Y increase or decrease simultaneously, then the coefficient of correlation will be

- a) Positive** b) Negative c) Zero d) One

7. If the points on the scatter diagram indicate that as one variable increases the other variable tends to decrease the value of r will be:

- a) Perfect positive b) Perfect negative **c) Negative** d) Zero

8. The value of the coefficient of correlation r lies between:

- a) 0 and 1 b) -1 and 0 **c) -1 and +1** d) -0.5 and +0.5

9. The term regression was used by:

- a) Newton b) Pearson c) Spearman **d) Galton**

10. The purpose of simple linear regression analysis is to:

- a) Predict one variable from another variable**
 b) Replace points on a scatter diagram with a straight-line
 c) Measure the degree to which two variables are linearly associated
 d) Obtain the expected value of the independent random variable for a given value of the dependent variable.

11. A process by which we estimate the value of the dependent variable on the basis of one or more independent variables is called:

- a) Correlation **b) Regression** c) Residual d) Slope

12. If $Y = 2 - 0.2X$, then the value of the Y-intercept is equal to

- a) -0.2 **b) 2** c) 0.2X d) All of the above

13. In the regression equation $Y = \beta_0 + \beta_1 X$, the Y is called:

- a) Independent variable **b) Dependent variable** c) Continuous variable d) none of the above

14. In the regression equation $Y = \beta_0 + \beta_1 X$, the X is called:

- a) Independent variable** b) Dependent variable c) Continuous variable d) none of the above

15. Econometrics is the integration of

- a) Economics and Statistics b) Economics and Mathematics
c) Economics, Mathematics and Statistics d) None of the above

16. Econometric is the word coined by

- a) Francis Galton **b) Ragnar Frish** c) Karl Person d) Spearsman

17. The raw materials of Econometrics are:

- a) Data** b) Goods c) Statistics d) Mathematics

18. The term U_i in regression equation is

- a) Residuals b) Standard error **c) Stochastic error term** d) non

19. The term U_i is introduced for the representation of

- a) Omitted Variable** b) Standard error c) Bias d) Discrete Variable

20. Econometrics is the amalgamation of

- a) 3 subjects** b) 4 subjects c) 2 subjects d) 5 subjects

2. Marks

21. What is Statistics?

Statistics as a science of estimates and probabilities - - Boddington

22. What are the kinds of Statistics?

- i. Descriptive statistics ii. Inferential statistics.

23. What do you mean by Inferential Statistics?

The branch of statistics concerned with using sample data to make an inference about a population of data is called Inferential Statistics.

24. What are the kinds of data?

In statistics, data are classified into two broad categories:

1. Based on Characteristics and 2. Based on sources with Quantitative data and Qualitative data

25. Define Correlation.

Correlation is a statistical device that helps to analyse the covariation of two or more variables

26. Define Regression.

Regression is the study of the relationship between the variables. The literal meaning of the word "regression" is "Stepping back towards the average".

27. What is Econometrics

Econometrics may be considered as the integration of economics, Statistics and Mathematics.

According to H Theil "Econometrics is concerned with the empirical determination of economic laws"

3 Marks

28. What are the functions of Statistics?

Statistics presents facts in a definite form.

1. It simplifies the mass of figures.
2. It facilitates comparison.
3. It helps in formulating and testing.
4. It helps in prediction.
5. It helps in the formulation of suitable policies

29. Find the Standard Deviation of the following data:

14, 22, 9, 15, 20, 17, 12, 11

S.No	X	$x - \bar{x}$ (15)	$(x - \bar{x})^2$
1	14	-1	1
2	22	7	49
3	9	-6	36
4	15	0	0
5	20	5	25
6	17	2	4
7	12	-3	9
8	11	-4	16

$$\bar{x} = \frac{\sum x}{n}$$

$$= 120/8 = 15$$

$$\sum (x - \bar{x})^2 = 140$$

$$= \frac{\sum (x - \bar{x})^2}{n}$$

$$\frac{\sqrt{140}}{8}$$

$$\sqrt{17.5}$$

$$= 4.18$$

30. State and explain the different kinds of Correlation.

Positive Correlation: If the values of two variables move in the same direction.

Negative Correlation: When the values of variables move in opposite directions.

Simple Correlation: If only two variables are taken for study then it is said to be a simple correlation

Multiple Correlations: If three or more than three variables are studied simultaneously.

Partial Correlation: If there are more than two variables but only two variables are considered keeping the other variables constant.

Linear Correlation: Correlation is said to be linear when the amount of change in one variable tends to bear a constant ratio to the amount of change in the other

Non-Linear: The correlation would be non-linear if the amount of change in one variable does not bear a constant ratio to the amount of change in the other variables.

31. Mention the uses of Regression Analysis.

It indicates the cause-and-effect relationship between the variables and establishes the functional relationship. Besides verification, it is used for the prediction of one value, in relation to the other given value.

It has a wider application, as it studies the linear and nonlinear relationship between the variables.

It has a wider application, as it studies the linear and nonlinear relationship between the variables

32. Specify the objectives of econometrics.

1. It helps to explain the behaviour of a forthcoming period that is forecasting economic phenomena.
2. It helps to prove the old and established relationships among the variables or between the variables
3. It helps to establish new theories and new relationships.
4. It helps to test the hypotheses and estimation of the parameter

33. Differentiate the economic model with an econometric model.

Sl.No	Economic model	Econometric Model
1	It is a local representation of knowledge	It is an integration of dependent variables with explanatory variables to analyse the particular economic activity
2	It is used for formulating the economic process at work	It is used activity to particular situation
3	It is based on Economic laws and theory	This is based on econometric investigation.

34. Discuss the important statistical organizations (offices) in India

The Statistics Wing called the National Statistical Office (NSO) consists of the Central Statistical Office (CSO), the Computer Centre and the National Sample Survey Office (NSSO).

CSO i. The Central Statistical Office is one of the two wings of the National Statistical Organisation

NSO. ii. It is responsible for the coordination of statistical activities in the country and for evolving and maintaining statistical standards.

iii. National Sample Survey Organisation (NSSO)

iv. The National Sample Survey Organisation, now known as National Sample Survey Office, is an organization under the Ministry of Statistics of the Government of India.

v. It is the largest organisation in India, conducting regular socio-economic surveys.

The Programme Implementation Wing has three Divisions, namely,

i Twenty Point Programme

ii Infrastructure Monitoring and Project Monitoring

iii Member of Parliament Local Area Development Scheme

5 Marks**35. Elucidate the nature and scope of Statistics.**

Statistics and Economics: Statistical data and techniques are immensely useful in solving many economic problems such as fluctuation in wages, prices, production, distribution of income and wealth and so on.

Statistics and Firms: Statistics is widely used in many firms to find whether the product is conforming to specifications or not.

Statistics and Commerce: Statistics are life blood of successful commerce. Market survey plays an important role to exhibit the present conditions and to forecast the likely changes in future.

Statistics and Education: Statistics is necessary for the formulation of policies to start new course, according to the changing environment.

Statistics and Planning: Statistics is indispensable in planning. In the modern world, which can be termed as the "world of planning."

Statistics and Medicine: In Medical sciences, statistical tools are widely used. In order to test the efficiency of a new drug or to compare the efficiency of two drugs or two medicines, t - test for the two samples is used.

Statistics and Modern applications: Recent developments in the fields of computer and information technology have enabled statistics to integrate their models and thus make statistics a part of decision making procedures of many organizations.

36. Calculate the Karl Pearson Correlation Co-efficient for the following data

Demand of Product X :	23	27	28	29	30	31	33	35	36	39
Sale of Product Y:	18	22	23	24	25	26	28	29	30	32

S.N	X	Y	dx=X-31	dy=Y-26	dx ²	dy ²	dx dy
1	23	18	-8	-8	64	64	64
2	27	22	-4	-4	16	16	16
3	28	23	-3	-3	9	9	9
4	29	24	-2	-2	4	4	4
5	30	25	-1	-1	1	1	1
6	31	26	0	0	0	0	0
7	33	28	2	2	4	4	4
8	35	29	4	3	16	9	12
9	336	30	5	4	25	16	20
10	39	32	8	6	64	36	48
N=10	$\Sigma x=311$	$\Sigma y=257$	$\Sigma dx=1$	$\Sigma dy=-3$	$\Sigma dx^2=203$	$\Sigma dy^2=159$	$\Sigma dx dy=178$

$$\bar{X} = \frac{\Sigma x}{N} = \frac{311}{10} = 31.1$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{257}{10} = 25.7$$

$$r = 0.9956$$

$$\bar{X} = \frac{\Sigma x}{N} = \frac{311}{10} = 31.1$$

$$\bar{Y} = \frac{\Sigma Y}{N} = \frac{257}{10} = 25.7$$

$$r = \frac{N \Sigma dx dy - (\Sigma dx)(\Sigma dy)}{\sqrt{N \Sigma dx^2 - (\Sigma dx)^2} \sqrt{N \Sigma dy^2 - (\Sigma dy)^2}}$$

$$r = \frac{10(178) - (1)(-3)}{\sqrt{10(203) - (1)^2} \sqrt{10(159) - (-3)^2}}$$

$$r = \frac{1780 - (-3)}{\sqrt{2030 - (1)^2} \sqrt{1590 - (-3)^2}}$$

$$r = \frac{1783}{\sqrt{2029} \sqrt{1590 - 9}}$$

$$r = \frac{1783}{\sqrt{2029} \sqrt{1581}}$$

$$r = \frac{1783}{45.04 \times 39.76}$$

$$r = \frac{1783}{1790.79}$$

$$r = 0.9956$$

37. Find the regression equation Y on X and X on Y for the following data:

X:	45	48	50	55	65	70	75	72	80	85
Y:	25	30	35	30	40	50	45	55	60	65

X	Y	dx=x-65	dy=y-45	dX ²	dY ²	dx dy
45	25	-20	-20	400	400	400
48	30	-17	-15	289	225	255
50	35	-15	-10	225	100	150
55	30	-10	-15	100	225	150
65	40	0	-5	0	25	0
70	50	5	5	25	25	25
75	45	10	0	100	0	0
72	55	7	10	49	100	70
80	60	15	15	225	225	225
85	65	20	20	400	400	400
645	435	-5	-15	1813	1725	1675

$$\bar{X} = \frac{\sum x}{N} = \frac{645}{10} = 64.5$$

$$\bar{Y} = \frac{\sum Y}{N} = \frac{435}{10} = 43.5$$

$$\frac{16675}{17025} = 0.98$$

$$b_{xy} = \frac{N \sum dx dy - (\sum dx)(\sum dy)}{N \sum dx^2 - (\sum dx)^2}$$

$$= \frac{(10)(1675) - (-15)(-5)}{(10)(1813) - (-5)^2} = \frac{16750 - 75}{18130 - 25}$$

$$= \frac{16675}{18105} = 0.92$$

$$b_{yx} = \frac{N \sum dx dy - (\sum dx)(\sum dy)}{N \sum dy^2 - (\sum dy)^2}$$

$$= \frac{(10)(1675) - (-15)(-5)}{(10)(1725) - (-15)^2} = \frac{16750 - 75}{17250 - 225}$$

X on Y

$$X - \bar{X} = b_{yx} (Y - \bar{Y})$$

$$x - 43.5 = 0.92(y - 64.5)$$

$$x - 43.5 = 0.92y - 59.34$$

$$x = 0.92y - 15.84$$

Y on X

$$Y - \bar{Y} = b_{xy} (X - \bar{X})$$

$$y - 64.5 = 0.98(x - 43.5)$$

$$Y - 64.5 = 0.98X - 42.63$$

$$Y = 0.98X - 42.63 + 64.5$$

$$Y = 0.98X + 21.87$$

38. Describe the application of Econometrics in Economics.

Econometrics is the integration of economics, Statistics and Mathematics.

Application of Econometrics

1. Forecasting macroeconomics: The expected effects of monetary and fiscal policy on the aggregate performance of the economy can be applied by the time-series models to predict economic indicators.

2. Estimating the impact of immigration on native workers: Immigration increases the supply of workers, so standard economic theory predicts that equilibrium wages will decrease for all workers. However, since immigration can also have positive demand effects, econometric estimates are necessary to determine the net impact of immigration in the labour market.

3. Identifying the factors that affect a firm's entry and exit into a market: Econometric estimation helps determine which factors are the most important for firm entry and exit.

4. Determining the influence of minimum wage law on the employment level

The labour economist use econometric techniques to estimate the actual effect of such policies

5. Finding the relationship between management techniques and worker productivity.

Statistics and Mathematics

1. It helps to explain the behaviour of a forthcoming period that is forecasting economic phenomena.
2. It helps to prove the old and established relationships among the variables or between the variables
3. It helps to establish new theories and new relationships.
4. It helps to test the hypotheses and estimation of the parameter.
