DALMIA VIDYA MANDIR
RAJGANGPUR
www.dalmiavidyamandir.education

100 YEARS OF EXCELLENCE

Dalmia Vidya Mandir, Chirawa

2024-25
SUMMER FUN WORK

CLASS
XII COM

DALMIA VIDYA MANDIR, RAJGANGPUR
(56 years of excellence)
(A CBSE English Medium Senior Secondary School, Affiliation No-1530001)
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Dear Parents,

Warm greetings from Dalmia Vidya Mandir!

We trust this letter finds you and your family in good health. As the summer break nears, we're delighted to share that our dedicated team, under the guidance of the Principal and Dr. Rosetta Williams (CEO, DVM group of schools), has curated summer assignments for your child.

These assignments, covering all subjects, aim to keep your child engaged in learning and prepare them for the upcoming academic year. They offer opportunities for exploration, skill development, and maintaining a learning routine during the break.

Your support in ensuring your child completes and submits these assignments to the respective class teacher on the first day of school reopening after the break is greatly appreciated. It will contribute to a positive start to the academic year and reinforce the knowledge acquired during the break.

For any queries or concerns, please reach out to the class teachers. Thank you for your ongoing support and involvement in your child's education. We eagerly anticipate a productive and successful academic year ahead.

Educationally yours,
Principal & Team
DVM, Rajgangpur

INDEX

ENGLISH

1.   Hand washing is as essential as eating food. It is the best way to be healthy and to stay away from various diseases. Soap plays an important role in removing dust, microbes and lubrication, maintaining good health every day. In comparison to the hand sanitizer, soap and water are more efficacious in removing certain microbes, pesticides and other chemical residues that dawdle on hands.

2. Hand sanitizers are more effective in hospitals when hands are in contact with germs, but not soiled or greasy. Other studies also reveal that hand sanitizers might be effective on lubricated hands with certain microbes. When hands are heavily soiled or greasy, for example, after playing outdoor games, gardening, fishing, travelling, executing extension activities such as campaigning and in certain cases, hand sanitizers may not be effective. In such circumstances, washing hands with soap and water is always preferable. Sanitizers cannot remove soil, dirt and grease rather they will make hands sticky, attracting more dirt.

3. According to the Center for Disease Control (CDC), hand hygiene encompasses the cleansing of hands by using soap and water, antiseptic hand washes, antiseptic hand rubs such as Alcohol-Based Hand Sanitizers (ABHS), foams or gels, or surgical hand antisepsis. Hand sanitizers as a disinfectant are in more use today because of its ease of availability, lack of water and time and their proven efficacy in lowering microbial load.

4. A review of research works states that limited literature is available in relation to hand sanitizers and washing hands. As COVID-19 has rapidly spread worldwide, panic buying of sanitizers over the coronavirus pandemic has led to stocking up of sanitizer sprays, gels, and so on, without knowing the effect of the sanitizer.

5. According to the World Health Organisation (WHO), an alcohol-based hand sanitizer is "an alcohol-containing preparation (liquid, gel, or foam) designed for application to the hands to inactivate microorganisms and/or temporarily suppress their growth. Such preparations may contain one or more types of alcohol, other active ingredients with excipients, and humectants." In 1966, hand sanitizers came into existence in healthcare facilities and were popularised significantly in early 1990s.

6. Hand sanitizers can be classified as alcohol-based or alcohol-free. Alcohol-based sanitizers comprise between 60 and 95 percent alcohol in the form of ethanol, isopropanol, or n-propanol. Alcohol have tendency to disseminate proteins and counteract certain micro-organisms at this concentration. Alcohol-free products have a property of disinfectants, such as Benzalkonium Chloride (BAC) or on antimicrobial agents, such as triclosan, which is immediate and purposeful. Several sanitizers comprise emollients (e.g.) glycerine that pacify the skin, thickening agents and provide aroma.

Questions

Based on your understanding of the passage, answer the following questions.

(i) "Such preparations may contain one or more types of alcohol ...." Which preparations is the writer discussing in these lines of the passage?

(a) Foams or gels, or surgical hand antisepsis that are only used in hospitals

(b) Glycerine that pacifies the skin, thickening agents, and provides aroma

(c) Non-Alcohol-based sanitizers used to clean dirt and germs from the hands

(d) An alcohol-containing preparation designed for application to the hands to inactivate microorganisms

(ii) Which word in Para-1 means the same as 'a small amount of something that remains after the main part has gone or been taken or used?

(a) efficacious

(b) residues

(c) pesticides

(d) essential

(iii) Select the option that suitably completes the given dialogue as per the context in paragraph - I.

X: Wash your hands before you eat anything.

Y: But washing the hands only with water is not sufficient, (1)……….

X: Could I use a sanitizer instead of the soap?

Y: No, (2) ………………..

(a) (1) As it would not properly clean your hands (2) the sanitizer is not so effective

(b) (1) You need a soap to remove germs and dirt (2) the soap is more effective

(c) (1) You need a sanitizer to remove dirt (2) the soap is not so effective

(d) (1) The plain water would harm your body (2) it's not so effective

(iv) As mentioned in the passage what can be the classification of the hand sanitizers?
Ans

(v) Select the option that is correct with reference to the given passage.

(a) Alcohol-based sanitizers comprise between 80 and 95 percent alcohol in the form of ethanol

(b) In 1986, hand sanitizers came into existence in healthcare facilities

(c) Alcohol-Based Hand sanitizers (ABHS) are better than foams and gels

(d) Hand sanitizers might be effective on lubricated hands with certain microbes

(vi) What is the relationship between (1) and (2)?

1. Sanitizers cannot remove soil, dirt, and grease rather they will make hands sticky, attracting more dirt.

2. Hand sanitizers are more effective in hospitals when hands are in contact with germs, but not soiled or greasy.

(a) (2) is the cause of (1)

(b) (1) and (2) are independent of each other

(c) (1) elaborates upon the premise of (2)

(d) (1) sets the stage of (2)

(vii) "In comparison to the hand sanitizer, soap and water are more efficacious in removing certain microbes, pesticides." What does the term 'efficacious' mean in the context of the passage?

(a) Skilful and valid

(b) Dynamic and versed

(c) Productive and effective (d) Futile and vain

(viii) Which of the following options can accurately describe the hand sanitizers?

1. Fumigant and germicide

2. Decontaminant and sterilizer

3. Germicide and musty

4. Cleanser and antihistamine

(a) 1 and 3

(b) 2 and 4

(c) 3 and 4

(d) 1 and 2

(ix) Which quote best summarises the importance of hand sanitization and cleanliness?
(a) One hand washes the other … both hands wash the face –Proverb

(b) Practice good personal hygiene. Wash your hands before you eat. Be aware of good clean water and food sources –James wright

(c) Dirty water does not wash clean –Proverb

(d) We dream of having a clean house–but who actually dreams of doing the cleaning? –Markus Buckingham

(x) Due to spread of COVID-19, What has panic buying of sanitizers resulted into?

Ans –

Answer the following questions in 30-40 words-
1.What tempted Franz to stay away from school?
Ans –

2. What tempted Franz to stay away from school?
Ans –

3. How is Mukesh different from the other bangle makers of Firozabad?
Ans –

4. "It is his Karam, his destiny," What is Mukesh's family's attitude towards their situation?
Ans –

5. How does Kamala Das try to put away the thoughts of her aging mother?
Ans –

6. What was the poet's childhood fear?
Ans-

7 . How will 'Keeping Quiet' protect our environment?

Ans –

8. Which images in the poem 'Keeping Quiet' show that the poem condemns violence?

Ans –

9. Choose the best option for your answer-

1. which poetic device has been used in' her face ashen like that of a corpse'?

a. personification   b. metaphor   c. repetition   d. simile

2. what is the tone of the poet in the poem' My Mother at sixty six?

a. pensive, helpless, sorrowful   b. happy, contented, satisfied   c. carefree, satisfied, joyous   d. carefree, satisfied, joyous

3. Metaphor has been used in.-

a. as a late winter's noon   b. trees sprinting, the merry children spilling out of their house

c. driving from my parents home   d. she was as old as she looked

10.- Give a brief account of the life and activities of the people like Saheb-e-Alam settled in Seemapuri. ?

Ans

11. Activity/ project- solve at least 5 sample papers during the holidays.

ACCOUNTANCY

1. A and B are partners from 1st April 2018, without a Partnership Deed and they introduced capitals of ₹ 35,000 and ₹ 20,000 respectively. On 1st October 2018, A advanced loan of ₹ 8,000 to the firm without any agreement as to interest. The profit and Loss Account for the year ended 31st March 2019 shows a profit of ₹ 15,000 but the partners cannot agree on payment of interest and on the basis of division of profits. You are required to divide the profits between them giving reasons for your method.

2. A and B are partners in a firm sharing profits in the ratio of 3: 2. They had advanced to the firm a sum of ₹ 30,000 as a loan in their profit-sharing ratio on 1st October, 2017. The Partnership Deed is silent on interest on loans from partners. Compute interest payable by the firm to the partners, assuming the firm closes its books every year on 31st March.

3. X and Y are partners sharing profits and losses in the ratio of 2 : 3 with capitals ₹ 2,00,000 and ₹ 3,00,000, respectively. On 1st October, 2018, X and Y gave loans of ₹ 80,000 and ₹ 40,000 respectively to the firm. Show distribution of profits/losses for the year ended 31st March, 2019 in each of the following alternative cases:

        Case 1: If the profits before interest for the year amounted to ₹ 21,000.

        Case 2: If the profits before interest for the year amounted to ₹ 3,000.

        Case 3: If the profits before interest for the year amounted to ₹ 5,000.

        Case 4: If the loss before interest for the year amounted to ₹ 1,400.

4. Bat and Ball are partners sharing the profits in the ratio of 2 : 3 with capitals of ₹ 1,20,000 and ₹ 60,000 respectively. On 1st October, 2018, Bat and Ball gave loans of ₹ 2,40,000 and ₹ 1,20,000 respectively to the firm. Bat had allowed the firm to use his property for business for a monthly rent of ₹ 5,000. The loss for the year ended 31st March, 2019 before rent and interest amounted to ₹ 9,000. Show distribution of profit/loss

5. A and B are partners. A's Capital is ₹ 1,00,000 and B's Capital is ₹ 60,000. Interest on capital is payable @ 6% p.a. B is entitled to a salary of ₹ 3,000 per month. Profit for the current year before interest and salary to B is ₹ 80,000.

Prepare Profit and Loss Appropriation Account.

BUSINESS STUDIES

1. Sridhar's father is working as a section in-charge in a government office. Identify the level of management at which he is working? State any five functions that he has to perform at this level.

2. Mega Ltd. manufactured water-heaters. In the first year of its operations, the revenue earned by the company was just sufficient to meet its costs. To increase the revenue, the company analysed the reasons behind the less revenues. After analysis, the company decided:
   1. to reduce the labour costs by shifting the manufacturing unit to a backward area where labour was available at a very low rate.
   2. to start manufacturing solar water-heaters and reduce the production of electric water- heaters slowly.

This will not only help in covering the risks but also help in meeting other objectives.Identify and explain the objectives of management discussed above.

3. Anju and Manju are good friends. Considering the fact that the activities involved in managing an enterprise are common to all organizations, after completing their masters in business management, both of them take up a job at managerial level in different organizations as per their individual areas of interest. Anju takes up a marketing job in a retail company and strives to increase sales whereas Manju joins an NGO and works diligently to realize its objective related to providing employment to specially abled persons. Both of them have to perform a series of continuous, composite, but separate functions. On some days, Anju may spend more time in planning a future display layout and on another day, she may spend time in sorting out an employee's problem. Both Anju and Manju make conscious efforts to build a feeling of team spirit and coordination among diverse individuals with different needs who work under them. The effect of their management is noticeable in their respective departments as the targets are met according to plans, employees are happy and satisfied, and there is orderliness in its functioning rather than chaos.

In context of the above case:
Identify the various features of management highlighted in the above paragraph by quoting lines from it.

4.Ramarjuna joins an IT firm as a system analyst after completing his masters in Computer Science. As the nature of his work demands he has to work in very close coordination with all the departmental heads in the firm, very soon Ramarjuna realizes that each departmental head has own individual style of working. They differ greatly in their day-to-day approach to work. They tend to deal with a given situation, an issue or a problem through a combination of their own experience, creativity, imagination, initiative and innovation.
In the context of the above case:
Identify and explain the nature of management highlighted in the above case.

5. Coordination is the essence of management. Explain.

6. Explain 'unity of command' and 'equity' as principles of general management.

7. Explain briefly 'discipline' and 'scalar chain' as principles of general management.

8. Aapka Vidyalaya' believes in the holistic development of students and encourages team building through a mix of curricular, co-curricular and sports activities. On its Founder's Day, a stage performance had to be put up. A committee of ten prefects was constituted to plan different aspects of the function. They all decided to use recycled paper for decoration. There was a spirit of unity and harmony and all the members supported each other. With mutual trust and a sense of belonging, the programme was systematically planned and executed. Kartik, one of the prefects, realised that the group had unknowingly applied one of the principles of management while planning and executing the programme. He was so inspired by the success of this function that he asked his father to apply the same principle in his business. His father replied that he was already using this principle.

1. Identify the principle of management applied for the success of the programme.
2. State any two features of management highlighted in the above paragraph.

9. The principles of Taylor and Fayol are mutually complementary. One believed that management should share the gains with the workers while the other suggested that employees' compensation should depend on the earning capacity of the company and should give them a reasonable standard of living.
Identify and explain the principles of Favol and Taylor referred to in the above paragraph.

11. Hritik is desirous of setting up a small factory to manufacture different kinds of eco-friendly packaging materials. He proposes to adopt a logical approach to his business rather than hit and trial method as he knows that this can result in tremendous saving of human energy as well as wastage of time and materials. He plans to adopt paternalistic style of management in practice in order to avoid any kind of class-conflict that may emerge between him and the workers. Moreover, he plans to seek the opinion of his workers before taking any important decisions and also offers incentives to them for providing valuable suggestions for the business.
In context of the above case identify and explain the various principle of scientific management that Hritik plans to apply in his business.

ECONOMICS

Dear Students,

　　Vacations are the most attractive and desirable part of school life! It's time again for a fun filled and relaxing summer break. However, during the scorching summer month, when you are locked up inside your homes, time must be spent meaningfully and interestingly. Keeping this in view, we have assigned Holiday Home work for you so that you remain connected with your studies. Also have lots of fun by pursuing your hobbies and enjoying yourselves with the family. As per further orders, the school will be ready to welcome you back all rejuvenated and invigorated.

STAY HOME! STAY SAFE!!

General instructions:

1.There are two part of the vacation work

2.Part –A important questions from National Income & related aggregates. Write the answers in your economics notebook.

3.Part-B Select a project which you want to do for CBSE board & for preliminary do it in PPT form Later on you will have to submit it in Project file

PART-A

ANSWER THE FOLLOWING QUESTIONS

1. Why should the aggregate final expenditure of an economy be equal to the aggregate factor payments? Explain. [3 Marks]
2. What is the difference between planned and unplanned inventory accumulation? Write down the relation between change in inventories and value added of a firm. [3 Marks]
3. Write down the three identities of calculating the GDP of a country by the three methods. Also, briefly explain why each of these should give us the same value of GDP. [3 Marks].
4. Define budget deficit and trade deficit. The excess of private investment over saving of a country in a particular year was Rs 2,000 crores. The amount of budget deficit was (-) Rs 1,500 crores. What was the volume of trade deficit of that country? [3-4 Marks]

5. Suppose the GDP at market price of a country in a particular year was Rs 1,100 crores. Net Factor Income from Abroad was Rs 100 crores. The value of Indirect taxes – Subsidies was Rs 150 crores and National Income was Rs 850 crores. Calculate the aggregate value of depreciation. [3 Marks]
6. Net National Product at Factor Cost of a particular country in a year is Rs 1,900 crores. There are no interest payments made by the households to the firms / government, or by the firms / government to the households. The Personal Disposable Income of the households is Rs 1,200 crores. The personal income taxes paid by them is Rs 600 crores and the value of retained earnings of the firms and government is valued at Rs 200 crores. What is the value of transfer payments made by the government and firms to the households? [3-4 Marks]
7. In a single day Raju, the barber, collects Rs 500 from haircuts; over this day, his equipment depreciates in value by Rs 50. Of the remaining Rs 450, Raju pays sales tax worth Rs 30, takes home Rs 200 and retains Rs 220 for improvement and buying of new equipment. He further pays Rs 20 as income tax from his income. Based on this information, complete Raju's contribution to the following measures of income

1. Gross Domestic Product
2. NNP at market price
3. NNP at factor cost
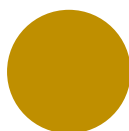
8. The value of the nominal GNP of an economy was Rs 2,500 crores in aparticular year. The value of GNP of that countiy during the same year evaluated at the prices of the same base year was Rs 3,000 crores. Calculate the value of the GNP deflator of the year in percentage terms. Did the price level rise between the base year and the year under consideration? [3-4 Marks]

9. Write down some of the limitations of using GDP as an index of welfare of a : countiy. [6 Marks]
OR
Explain how distribution of gross domestic product is its limitation as a measure of economic welfare.

OR
Explain how 'distribution of gross domestic product' is a limitation in taking domestic product as an index of welfare. OR
Can gross domestic product be used as an index of welfare of the people? Give two reasons.
OR
Explain Per Capita Real GDP as Indicator of Economic Welfare.
OR
Explain any four limitations of using GDP as a measure/index of welfare of a country.

I. VERY SHORT ANSWER TYPE QUESTIONS (1 Mark)
1. Define 'depreciation'.
2. When is the net domestic product at market price less than the net domestic product at factor cost?

3. Why does gross domestic product at factor cost more than the net domestic product at factor cost?
.
4. When will GDP of an economy be equal to GNP?
5. When will the domestic income exceed the national income?
6. If NDPFC is Rs 1,0000 crores and NFIA is (-) Rs 500 crores, how much will be the national income?
7. If the domestic factor income is Rs 50,000 crores and the national income is Rs 45,000 crores, how much will be the net factor income from abroad?
8. Mention the three methods of measuring national income.

9. Calculate the disposable income, if personal income is Rs 30,000 and the rate of income tax is 10%.
10. In which type of economy, domestic income will be equal to national income?
11. What is the value added method of measuring national income?
12. When is value of output equal to value added?.
13. What aggregate do we get when we add up the gross value added of all the producing sectors of an economy?
14. What is the rationale for not taking into account the value of intermediate goods in the measure of GDP?
15. If compensation of employees in a firm constitutes 65% of net value added at factor cost of a firm, find the proportion of operating surplus.
16. What is nominal gross domestic product?
 17. Define primary sector.
18. Define secondary sector.
Ans:
19. Define tertiary sector.
Ans: .
II.MULTIPLE CHOICE QUESTIONS (1 Mark)
1. Which one of the following statements is incorrect?
(a) GDP at market price = GDP at factor cost plus net indirect taxes.
(b) NNP at factor cost = NNP at market price minus indirect taxes.
(c) GNP at market price = GDP at market price plus net factor income from abroad.

(d) None of them.

2. National income differs from net national product at market price by the amount———

(a) current transfers from the rest of the world

(b) net indirect taxes

(c) national debt interest

(d) it does not differ

3. Net national product at factor cost is————-.

(a) equal to national income

(b) less than national income

(c) more than national income

(d) sometimes less than national income and sometimes more than it

4. The net values added method of measuring national income is also known as—————-

(a) net output method

(b) production method

(c) industry of origin method

(d) all of the above

5. Identify the item which is not a factor payment:

(a) Free uniforms to defense personnel

(b) Salaries to the members of Parliament

(c) Imputed rent of an owner occupied a building .

(d) Scholarships given to the students of scheduled caste

6. Mixed income of the self-employed means

(a) gross profits received by proprietors

(b) rent, interest and profit of an enterprise

(c) combined factor payments which are not distinguishable

(d) wages due to family workers

7. Demand for final consumption arises in ——————-.

(a) household sector only

(b) government sector only

(c) both household and government sectors

(d) neither in households nor in government sector

8. Demand for intermediate consumption arises in—————— .

(a) consumer households

(b) government enterprises only

(c) corporate enterprises only

(d) all producing sectors of an economy

9. Which one of the following options is an economic activity?

(a) Listening to music on the radio.

(b) Teaching one's own son at home.

(c) Medical facilities rendered by a charitable dispensary.

(d) A housewife doing household duties.

10. Net value added is equal to————— .

(a) payments accruing to factors of production

(b) compensation to employees

(c) wages plus rents

(d) value of output minus depreciation

11. Per capita national income means:

(a) NNP/population

(b) Total capital population

(c) Population NNP

(d) None of them

12. Which one of the following statements is correct?

(a) If national income rises, per capita income must also rise

(b) If population rises, per capita income must fall.

(c) If national income rises, welfare of the people must rise.

(d) None of them

III. SHORT ANSWER TYPE QUESTIONS (3-4 Marks)

1. Distinguish between domestic product and national product. When can domestic product be more than national product?

OR

Differentiate between Domestic Income (NDPFC) Vs National Income (NNPFC)..

2. Differentiate between Gross Domestic Product at Market Price Vs National Income

3. Differentiate between National Income at constant price and national income at current price?

4. Distinguish between real and nominal gross domestic product

Or

Discuss any two differences between GDP at constant prices and GDP at current Prices

5. Explain how 'externalities' are a limitation of taking gross domestic product as an index of welfare

6. Explain how "Non-Monetaiy exchanges' are a limitation in taking gross domestic product as an index of welfare

7. Explain how distribution of 'Gross Domestic Product' is a limitation in taking gross domestic product as an index of welfare.

8. State the various components of the income method that are used to calculate national income

IV. TRUE OR FALSE

Giving reasons, state whether the following statements are true or false.

1. In a closed economy, gross national product is always equal to gross domestic product.

2. Gross investment can be equal to net investment.

3. Domestic Income of a country can be more than its National income..

4. Market price is always more than factor cost.

5. Measurement of national income at current prices provides a reliable base of comparison.

6. Nominal GDP can never be less than Real GDP

7. Net capital gains from the sale of property is a part of domestic factor income.

8. Change in stock is not a part of Capital formation..

9. Brokerage paid on sale of shares and income from shares purchased is not a part of national income.

10. Salary of Pakistan worker, working in Indian Embassy is not a national income of India.

11. Income tax paid is not a part of national income..

12. Income from imputed rent of self- occupied houses is a part of national income.

13. Net profit of any Bank of India's branch in USA will not be included in Indian National income.

14. Exports do not form a part of domestic factor income.

15. Gross domestic product at market price includes net factor income from abroad and net indirect taxes.

16. Gross National Product is always less than Gross National expenditure.

17. Exports are a part of net factor income from abroad.

18. Real GDP includes domestic income at current prices.

19. National disposable income includes current transfers income of government.

20. Private income does not include net factor income from abroad.

21. Personal income does not include income from personal taxes.

22. Personal disposable income is equal to aggregate consumption and savings.

23. Private income includes earned incomes of private sector from all sources.

24. National disposable income is the disposable income of private sector.

25. Travelling allowance paid by employer is a part of national income.

26. Consumption of food grains by farmer himself is not a part of national output.

27. Sale of second hand car is not included in national income..

28. Rent received by an American from Reliance Industries with respect to building located in India will neither be included in national income nor in domestic income of India.

29. Purchase of car by a consumer is a part of gross domestic capital formation.

30. Goods produced for self-consumption will be included in national income.

31. Gross domestic capital formation is always greater than gross fixed capital formation.

V. LONG ANSWER TYPE QUESTIONS(6 Marks)

1. Calculate GNP at FC from the following data by income method, and Expenditure method

Particulars	(₹) In Crore
(i) Wages and salaries	800
(ii) Mixed income of self-employed	160
(iii) Operating surplus	600
(iv) Undistributed profit	150
(v) Gross capital formation	330
(vi) Change in stocks	25
(vii) Net capital formation	300
(viii) Employers' contribution to social security schemes	100
(ix) Net factor income from abroad	(−)20
(x) Exports	30
(xi) Imports	60
(xii) Private final consumption expenditure	1,000
(xiii) Government final consumption expenditure	450
(xiv) Net indirect taxes	60
(xv) Compensation of employees paid by the government	75

2. Calculate "Gross National Product at Factor Cost" from the following data by (a) Income method, and (b) Expenditure method:

Particulars	(₹) In Crore
(i) Private final consumption expenditure	1,000
(ii) Net domestic capital formation	200
(iii) Profits	400
(iv) Compensation of employees	800
(v) Rent	250
(vi) Government final consumption expenditure	500
(vii) Consumption of fixed capital	60
(viii) Interest	150
(ix) Net current transfers from rest of the world	(−)80
(x) Net factor income from abroad	(−)10
(xi) Net exports	(−)20
(xii) Net indirect taxes	80

4. From the following data, calculate (a) Gross Domestic Product at Factor Cost and (b) Factor Income To Abroad
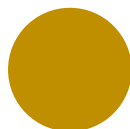
	Particulars	(₹) In Crore
(i)	Compensation of employees	800
(ii)	Profits	200
(iii)	Dividends	50
(iv)	Gross national product at market price	1,400
(v)	Rent	150
(vi)	Interest	100
(vii)	Gross domestic capital formation	300
(viii)	Net fixed capital formation	200
(ix)	Change in stock	50
(x)	Factor income from abroad	60
(xi)	Net indirect taxes	120

4. Calculate Gross Domestic Product at Factor Cost:

	Particulars	(₹) in Arab
(i)	Miscellaneous receipts of government administrative departments	5
(ii)	Savings of non-departmental enterprises	3
(iii)	Savings of private corporate sector	10
(iv)	Direct tax paid by households	30
(v)	Net factor income to abroad	6
(vi)	Corporation tax	20
(vii)	Net current transfers from the rest of the world	4
(viii)	National debt interest	15
(ix)	Current transfers from government	8
(x)	Income from property and entrepreneurship accruing to the government administrative departments	12
(xi)	Personal disposable income	200
(xii)	Consumption of fixed capital	11

5.   Calculate (a) National Income:

	Particulars	(₹) in Arab
(i)	Personal disposable income	120
(ii)	Income from property and entrepreneurship accruing to the government administrative departments	5
(iii)	Miscellaneous receipts of government administrative departments	4
(iv)	Net current transfers from abroad	10
(v)	Direct tax paid by households	15
(vi)	Corporation tax	6
(vii)	Undistributed profits of private sector	3
(viii)	National debt interest	16
(ix)	Savings of non-departmental enterprises	15
(x)	Net factor income from abroad	1
(xi)	Current transfers from government	2
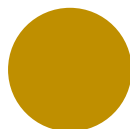
VI. HIGHER ORDER THINKING SKILLS
1. Explain the components of NFIA.[3-4 Marks]

VII. VALUE BASED QUESTIONS
1. Why do non market economic activities, like

1.   Services of housewives
2.   Voluntary services and
3.   Leisure time activities

help in the flow of goods and services of a country. But why are these not included in the estimation of national income? [1 Mark]

2. The given set of prices which is used for finding out real per capita income, should change frequently. Why? [1 Mark]

3. Why comparing the GDPs of various nations might not tell you which nation is better off? [1 Mark]

4. GDP Calculation do not directly include the social costs of environmental damages, for example, global warming, acid rain. Do you think these costs should be included in GDP? Why or Why not? [1 Mark]
5. GDP growth rate in India for the last few years is more than 6% but still more than 28% of population is lying below poverty line. Explain any two factors responsible for it. [1 Mark]

6. Should we take real per capita income as an index of economic welfare? If not, why? [1 Mark]
7. Rakesh pays Rs 1,000 towards premium on his full life policy with the LIC. Is this a part of compensation of employees? [1 Mark]
8. How will you treat Rs 20,000 earned per month by Mr Rajesh against hiring out his bus to a neighboring school?[1 Mark]

PART-B

Guidelines for Project Work in Economics
The objectives of the project work are to enable learners to:
- ♣   probe deeper into theoretical concepts learnt in classes XI and XII
- ♣   analyse and evaluate real world economic scenarios using theoretical constructs and arguments
- ♣   demonstrate the learning of economic theory
- ♣   follow up aspects of economics in which learners have interest
- ♣   develop the communication skills to argue logically
- ♣   The expectations of the project work are that:
- ♣   learners will complete only ONE project in each academic session
- ♣   project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably hand-written
- ♣   it will be an independent, self-directed piece of study.

Scope of the project:
- Learners may work upon the following lines as a suggested flow chart:
- Choose a title/topic
- Collection of the research material/data
- Organization of material/data
- Present material/data
- Analysing the material/data for conclusion
- Draw the relevant conclusion

Presentation of the Project Work

Expected checklist:

- Introduction of topic /title
- Identifying the causes consequences and / or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situation for issues identified
- Short term and long term implications of economic strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in the project file
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography, etc.

Marking Scheme:

Marks are suggested to be given as –

S. No.	Heading	Marks Allotted
1.	Relevance of the topic	3
2.	Knowledge Content/Research Work	6
3.	Presentation Technique	3
4.	Viva-voce	8
	Total	20 Marks

Suggestive List of Projects:

Class XII	
• Micro and Small Scale Industries	• Food Supply Channel in India
• Contemporary Employment situation in India	• Disinvestment policy of the government
• Goods and Services Tax Act and its Impact on GDP	• Health Expenditure (of any state)
• Human Development Index	• Inclusive Growth Strategy
• Self-help group	• Trends in Credit availability in India
• Monetary Policy Committee and its functions	• Role of RBI in Control of Credit
• Government Budget & its Components	• Trends in budgetary condition of India
• Exchange Rate determination – Methods and Techniques	• Currency War – reasons and repercussions
• Livestock – Backbone of Rural India	• Alternate fuel – types and importance
• Sarva Shiksha Abhiyan – Cost Ratio Benefits	• Golden Quadrilateral- Cost ratio benefit
• Minimum Support Prices	• Relation between Stock Price Index and Economic Health of a Nation
• Waste Management in India – Need of the hour	• Minimum Wage Rate – Approach and Application
• Digital India- Step towards the future	• Rain Water Harvesting – A solution to water crisis
• Vertical Farming – An alternate way	• Silk Route- Revival of the past
• Make in India – The way ahead	• Bumper Production- Boon or Bane for the farmer
• Rise of Concrete Jungle- Trend Analysis	• Organic Farming – Back to the Nature
• *Aatmanirbhar* Bharat	• e-Rupee (e- ₹)
• Sri Lanka's Economic Crisis	• Sustainable Development Goals (SDG's)
• Environmental Crisis	• Comparative Study of Economies (Maximum three economies)
• New Education Policy (NEP) 2020: A Promise for a New Education System	• G-20: Inclusive and Action Oriented
• Amrit Kaal: Empowered and Inclusive Economy	• Cashless Economy
• Any other newspaper article and its evaluation on basis of economic principles	• Any other topic
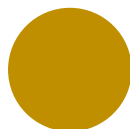
MATHEMATICS

CASE STUDY 1:

A general election of Lok Sabha is a gigantic exercise. About 911 million people were eligible to vote and voter turnout was about 67%, the highest ever. Let I be the set of all citizens of India who were eligible to exercise their voting right in general election held in 2019. A relation 'R' is defined on I as follows:

R = {$(V1, V2) : V1, V2 \in I$ and both use their voting right in general election – 2019}

1. Two neighbors X and Y∈ I. X exercised his voting right while Y did not cast her vote in general election – 2019. Which of the following is true?

a. (X, Y) ∈R

b. (Y, X) ∈R

c. (X, X) ∉R

 d. (X, Y) ∉R

2. Mr.'X' and his wife 'W'both exercised their voting right in general election -2019, which of the following is true?

a. Both (X, W) and (W, X) ∈ R

 b. (X, W) ∈ R but (W, X) ∉ R

c. both (X, W) and (W,X) ∉ R

 d. (W, X) ∈ R but (X, W) ∉ R

3. Three friends F1, F2 and F3 exercised their voting right in general election-2019, then which of the following is true?

a. (F1, F2) ∈R, (F2, F3) ∈ R and (F1, F3) ∈ R

 b. (F1, F2) ∈ R, (F2, F3) ∈ R and (F1, F3) ∉ R

 c. (F1, F2) ∈ R, (F2, F2) ∈R but (F3, F3) ∉ R

d. (F1, F2) ∉ R, (F2, F3) ∉ R and (F1,F3) ∉ R

4. The above defined relation R is _____

a. Symmetric and transitive but not reflexive

b. Universal relation

c. Equivalence relation

d. Reflexive but not symmetric and transitive

 5. Mr. Shyam exercised his voting right in General Election – 2019, then Mr. Shyam is related to which of the following?

 a. All those eligible voters who cast their votes

 b. Family members of Mr.Shyam

c. All citizens of India

 d. Eligible voters of India

CASE STUDY: 2

Sherlin and Danju are playing Ludo at home during Covid-19. While rolling the dice, Sherlin's sister Raji observed and noted the possible outcomes of the throw every time belongs to set {1, 2, 3, 4, 5, 6}. Let A be the set of players while B be the set of all possible outcomes. A = {S, D}, B = {1, 2, 3, 4, 5, 6}

1. Let $R : B \rightarrow B$ be defined by R = {(x, y): y is $divisible$ } is

a. Reflexive and transitive but not symmetric

b. Reflexive and symmetric and not transitive

c. Not reflexive but symmetric and transitive

d. Equivalence

2. Raji wants to know the number of functions from A to B. How many number of functions are possible?

 a. 62

 b. 26

 c. 6!

 d. 212

3. Let R be a relation on B defined by R = {(1,2), (2,2), (1,3), (3,4), (3,1), (4,3), (5,5)}. Then R is

 a. Symmetric

 b. Reflexive

 c. Transitive

 d. None of these three

 4. Raji wants to know the number of relations possible from A to B. How many numbers of relations are possible?

 a. 62

 b. 26

 c. 6!

 d. 212

5. Let $R:B \rightarrow B$ be defined by R={(1,1),(1,2), (2,2), (3,3), (4,4), (5,5),(6,6)}, then R is

 a. Symmetric

 b. Reflexive and Transitive

 c. Transitive and symmetric

 d. Equivalence

CASE STUDY: 3

Students of Grade 9, planned to plant saplings along straight lines, parallel to each other to one side of the playground ensuring that they had enough play area. Let us assume that they planted one of the rows of the saplings along the line $y = x - 4$. Let L be the set of all lines which are parallel on the ground and R be a relation on L.

Answer the following using the above information.

1. Let relation R be defined by R = $\{(L1, L2): L1 \parallel L2$ where L1,L2 € L$\}$ then R is_____ relation

a. Equivalence

b. Only reflexive

c. Not reflexive

d. Symmetric but not transitive

2. Let R = $\{(L1, L2) : L1 \perp L2$ where L1,L2 € L $\}$ which of the following is true?

a. R is Symmetric but neither reflexive nor transitive

b. R is Reflexive and transitive but not symmetric

c. R is Reflexive but neither symmetric nor transitive

d. R is an Equivalence relation

3. The function f: R→R defined by $(x) = x - 4$ is_____

a. Bijective

b. Surjective but not injective

c. Injective but not Surjective

d. Neither Surjective nor Injective

4. Let $f: R \rightarrow R$ be defined by $(x) = x - 4$. Then the range of (x) is _____

a. R

b. Z

c. W

d. Q

5. Let R = $\{(L\,1, L\,2) : L\,1$ is parallel to L 2 and L 1 : y = x − 4$\}$ then which of the following can be taken as L 2 ?

a 2x-2y+5=0

b. 2x+y=5

c.2x + 2y + 7 =0

d. x+ y=7

MATRICES AND DETERMINANT

1 Mark Questions

1. A matrix A of order 3 x 3 has determinant 5. Find the value of $|3A|$.

2. Find the cofactor of a_{12} in the following : $\begin{vmatrix} 1 & -3 & 5 \\ 6 & 0 & 4 \\ 1 & 5 & -7 \end{vmatrix}$.

3. If A is a square matrix of order 3 such that $|adj\,A| = 64, find\,|A|$.

4. If A is a square matrix and satisfies the relation $A^2 + A - I = 0$, then find A^{-1}.

5. For what value of a, $\begin{bmatrix} 2a & -1 \\ -8 & 3 \end{bmatrix}$ is singular matrix?

6. A square matrix ' A', of order 3 has $|A| = 5$, find $|A\,adj\,A|$.

7. For what value of k, the matrix $\begin{bmatrix} 2-k & 3 \\ -5 & 1 \end{bmatrix}$ is not invertible.

8. A matrix A is of order 2 x 2 has determinant 4. What is the value of $|2A|$?

9. If A and B are symmetric matrices of same order, write whether AB – BA is symmetric or skew symmetric.

4   Marks Questions

10. If A = $\begin{bmatrix} 2 & 3 \\ 1 & -4 \end{bmatrix}$ and B = $\begin{bmatrix} 1 & -2 \\ -1 & 3 \end{bmatrix}$ and B = $\begin{bmatrix} 1 & -2 \\ -1 & 3 \end{bmatrix}$, show $(AB)^{-1} = B^{-1}\,A^{-1}$.

11. If A = $\begin{bmatrix} 3 & 2 \\ 1 & 1 \end{bmatrix}$, find the value of a and b : $A^2 + Aa + bI = 0$. Hence find A^{-1}.

12. Express the matrix $\begin{bmatrix} 2 & 3 & 4 \\ 5 & 7 & 9 \\ -2 & 1 & 1 \end{bmatrix}$ as the sum of symmetric and a skew symmetric matrix.

13. Find the values of x, y, z if A = $\begin{bmatrix} 0 & 2y & z \\ x & y & -z \\ x & -y & z \end{bmatrix}$ satisfies the eqn A'A = I.

14. If A = $\begin{bmatrix} 3 & -4 \\ 1 & 1 \end{bmatrix}$. Prove $A^n = $. $\begin{bmatrix} 1+2n & -4n \\ n & 1-2n \end{bmatrix}$ for all n$\in$ N.

15. If A = $\begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$, show $A^2 - 5A - 14I = 0$ and hence find A^{-1}.

16. Find 2 x 2 matrix B : B $\begin{bmatrix} 1 & -2 \\ 1 & 4 \end{bmatrix} = \begin{bmatrix} 6 & 0 \\ 0 & 6 \end{bmatrix}$.

17. .Using properties of determinants, prove : $\begin{vmatrix} 3a & -a+b & -a+c \\ a-b & 3b & c-b \\ a-c & b-c & 3c \end{vmatrix} = 3(a+b+c)\,(ab+bc+ca)$

18. .Using properties of determinants, prove : $\begin{vmatrix} y+z & z & y \\ z & z+x & x \\ y & x & x+y \end{vmatrix} = 4xyz$

19. Using properties of determinants, prove $\begin{vmatrix} a^2+1 & ab & ac \\ ba & b^2+1 & bc \\ ca & cb & c^2+1 \end{vmatrix} = a^2+b^2+c^2+1$.
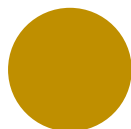
COMPUTER SCIENCE
My SQL Worksheet-1   (DDL – Database Related commands)

1.	If a database "Employee" exists, which MySql command helps you to start working in that database?
2.	Write MySql command will be used to open an already existing database "LIBRARY".
3.	Write MySql command to open an existing database.
4.	What does SQL stand for?
5.	Write two examples of DBMS software.
6.	Sharmila wants to make the database named 'COMPANY' active. Write MySQL commands for it.
7.	What is MySQL ?
8.	Mention any two example of common Database Management System.
9.	Suggest Archana suitable command for the following purpose: i. To display the list of the database already existing in MySQL. ii. To use the database named City. iii. To remove the pre-existing database named Clients. i. ii. iii.
10.	Write the command to create a new database "School"

My SQL Worksheet-2
(DDL – Table Related commands excluding Alter table)

1.	Write an SQL query to create the table 'Menu' with the following structure:

Field	Type
ItemCode	Varchar(5)
ItemName	Varchar(20)
Category	Varchar(20)
Price	Decimal(5,2)

2.	Write MySql command to create the Table STOCK. Table STOCK :

Name of Column	Type	Size
Id	Decimal	4
Name	Varchar	20
Company	Varchar	20
Price	Decimal	8

3.	Write one similarity and one difference between CHAR and VARCHAR data types.

4.	Saumya had previously created a table named 'Product' in a database using MySQL. Later on she forgot the table structure. Suggest her suitable MySQL command through which she can check the structure of the already created table.

5.	Roli wants to list the names of all the tables in her database named 'Gadgets'. Which command (s) she should use to get the desired result.

6.	Name the SQL commands used to : (i) Physically delete a table from the database. (ii) Display the structure of a table.
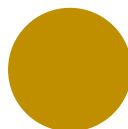
7.	An attribute A of datatype varchar(20) has the value "Amit" . The attribute B of datatype char(20) has value "Karanita" . How many characters are occupied in attribute A ? How many characters are occupied in attribute B?
8.	Mrs. Sharma is the classteacher of Class 'XII A' She wants to create a table 'Student' to store details of her class. Which of the following can be the attributes of Student table? a) RollNo b) "Amit" c) Name d) 25
9.	Write SQL query to create a table 'Player' with the following structure: <table><tr><td>Field</td><td>Type</td></tr><tr><td>playerid</td><td>Integer</td></tr><tr><td>name</td><td>Varchar(50)</td></tr><tr><td>height</td><td>Integer</td></tr><tr><td>weight</td><td>Integer</td></tr><tr><td>datebirth</td><td>Date</td></tr><tr><td>teamname</td><td>Varchar(50)</td></tr></table>
10.	Anita has created the following table with the name 'Order'. <table><tr><td>Column Name</td></tr><tr><td>OrderId</td></tr><tr><td>OrderDate</td></tr><tr><td>OrderAmount</td></tr><tr><td>StoreId</td></tr></table> One of the rows inserted is as follows : <table><tr><td>OrderId</td><td>OrderDate</td><td>OrderAmount</td><td>StoreId</td></tr><tr><td>O101</td><td>2015-02-12</td><td>34000</td><td>S104</td></tr></table> What is the data type of columns OrderId and OrderDate in the table Order ?
11.	Write SQL query to create a table 'Event' with the following structure : <table><tr><td>Field</td><td>Type</td></tr><tr><td>EventId</td><td>Varchar(5)</td></tr><tr><td>EventName</td><td>Varchar(30)</td></tr><tr><td>Location</td><td>Varchar(50)</td></tr><tr><td>ClientID</td><td>Integer</td></tr><tr><td>EventDate</td><td>Date</td></tr></table>

My SQL Worksheet-3
(DDL – Alter Table commands)

1.	Sahil created a table in Mysql. Later on he found that there should have been another column in the table. Which command should he use to add another column to the table?
2.	Kuhu has already created a table 'Hospital' as shown below:

Patient_No	Patient_Name	Disease	Age	Charges
P001	Alya	Viral Fever	14	500
P002	Kavita	Lung Infection	16	1500
P003	Manya	Cough and Cold	20	500
P004	Amar	Bone Fracture	22	2500
P005	Deep	Viral Fever	15	500

Now she wants to add a new column 'Address' to the above given table. Suggest suitable MySQL command for the same.

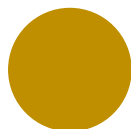|	
3.	Write SQL command to remove column named 'Hobbies' from a table named 'Student'.
4.	While creating the table Student last week, Ms. Sharma forgot to include the column Game_Played. Now write a command to insert the Game_Played column with VARCHAR data type and 30 size into the Student table?
5.	Kunal created the following table with the name 'Friends' :

Table : Friends

FriendCode	Name	Hobbies
F101	Bijoy	Swimming
F102	Abhinav	Reading books
F103	Jyotsna	Dancing

Now, Kunal wants to delete the 'Hobbies' column. Write the MySQL statement
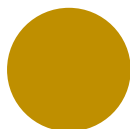
6.	Rashi wants to add another column 'Hobbies' with datatype and size as VARCHAR(50) in the already existing table 'Student'. She has written the following statement. However it has errors. Rewrite the correct statement. MODIFY TABLE Student Hobbies VARCHAR;

My SQL Worksheet-4   (DML – INSERT INTO commands)

1.	Consider the table RESULT given below.

Table : Result

No	Name	Stipend	Subject	Average	Division
1	Sharon	400	English	38	THIRD

Write command to insert a new row   6, "Mohan", 500, "English", 73, "Second"

2.	Consider the Table SHOPPE given below.

Table **SHOPPE** :

Code	Item	Company	Qty	City	Price
102	Biscuit	Hide & Seek	100	Delhi	10.00

To insert a new row in the table Shoppe   '110', 'Pizza' , 'Papa Jones', 120, "Kolkata", 50.0

3.	How is NULL value different from 0 (Zero) value?

4.	Consider the following table named "GYM"

Table GYM:

ICODE	INAME	PRICE	BRANDNAME
G101	Power Fit Exerciser	20000	Power Gymea

Add a new row for a new item in GYM with the details: "G107", "Vibro exerciser" ,21000, "GTCFitness"

5.	Rewrite the following SQL statement after correcting error(s). Underline the corrections made. INSERT IN STUDENT(RNO,MARKS) VALUE (5,78.5);

6.	Rewrite the following SQL statement after correcting error(s). Underline the corrections made. INSERT IN EMP(EMPNO, SALES) VALUE (100, 20078.50);

7.	Charvi is inserting "Sharma" in the "LastName" column of the "Emp" table but an error is being displayed. Write the correct SQL statement. INSERT INTO Emp('Sharma')VALUES(LastName) ;

8.	In today's digitized world with a need to store data electronically, it is very important to store the data in the databases. SQL is used to interact with the Database Management System. Classify the following commands according to their type :(DDL/DML) i. INSERT INTO ii. ALTER TABLE

9.	Write the full forms of the following: i. DDL ii. DML

My SQL Worksheet-5

(DML – UPDATE and DELETE commands)

1.	What is the purpose of DROP TABLE command in SQL? How is it different from DELETE command?
2.	In a database there is a table "Product" as shown below :

Table : PRODUCT

P_ID	ProductName	Manufacture	Price
P001	Moisturiser	XYZ	40
P002	Sanitizer	LAC	35
P003	Bath Soap	COP	25
P004	Shampoo	TAP	95
P005	Lens Solution	COP	350

Write the command To increase the Price of all the Products by 20.

3.	Write the UPDATE command to change "Sharma" to "Singh" in the "LastName" column in the Employee table.
4.	What is the use of UPDATE statement in SQL ? How is it different from ALTER statement?
5.	Consider the following table named "GYM"

Table GYM:

ICODE	INAME	PRICE	BRANDNAME
G101	Power Fit Exerciser	20000	Power Gymea
G102	Aquafit Hand Grip	1800	Reliable
G103	Cycle Bike	14000	Ecobike
G104	Protoner Extreme Gym	30000	Coscore
G105	Message Belt	5000	MessagExpert
G106	Cross Trainer	13000	GTCFitness

Write command To change the Brandname to "Fit Trend India" of the item, whose ICODE as "G101 ".

6.	Write the UPDATE statement in MySQL to increase commission by 100.00 in the ''Commission'' column in the 'Emp' table.
7.	Write two examples of DML commands of SQL.

8.	Consider the following table named "GARMENT".

Table : GARMENT

GCODE	GNAME	SIZE	COLOUR	PRICE
111	TShirt	XL	Red	1400.00
112	Jeans	L	Blue	1600.00
113	Skirt	M	Black	1100.00
114	Ladies Jacket	XL	Blue	4000.00
115	Trousers	L	Brown	1500.00
116	Ladies Top	L	Pink	1200.00

  1) Write command To change the colour of garment with code as 116 to "Orange".
  2) Write command to increase the price of all XL garments by 10%
 3) Write command to delete the record with GCode "116" |
9.	In Marks column of 'Student' table, for Rollnumber 2, the Class Teacher entered the marks as 45. However there was a totaling error and the student has got her marks increased by 5. Which MySQL command should she use to change the marks in 'Student' table.
10.	Chhavi has created a table named Orders, she has been asked to increase the value of a column named salesamount by 20. She has written the following query for the same.
Alter table Orders Add salesamount =salesamount+20;
Is it the correct query?Justify.
11.	Consider the following table:
Table: PharmaDB

RxID	Drug ID	DrugName	Price	Pharmacy Name	PharmacyLocation
R1000	5476	Amlodipine	100.00	Rx Pharmacy	Pitampura, Delhi
R1001	2345	Paracetamol	15.00	Raj Medicos	Bahadurgarh, Haryana
R1002	1236	Nebistar	60.00	MyChemist	Rajouri Garden, Delhi
R1003	6512	VitaPlus	150.00	MyChemist	Gurgaon,Haryana
R1004	5631	Levocitrezine	110.00	RxPharmacy	South Extension,Delhi

Write commands in SQL to increase the price of "Amlodipine" by 50. |
| | |
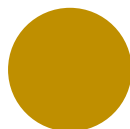
ENTREPRENEURSHIP

1. Enlist the various sources, which lead to emergence of basic ideas.

2. Write the meaning of product identification in terms of business opportunity.

3. What are the various ways in which entrepreneur spot trends?

4" Sensitivity to environment factors is essential for an entrepreneur". In the light of above, statement explain the importance of environment scanning.

5. Explain creative process.

6. What is innovation and explain the elements of innovation process?

7. 'These are the convenient frames of references for streamlining the process of generation of idea'. Identify them and explain them briefly.

8. "If you don't adopt, you don't endure". Evaluate the validity of the statement.

9. Explain sole proprietorship with its characteristics.

10. What is idea generation?

11. Define the term environment scanning.

13. List the environmental factors affecting external environment.

14. Draw enterprise process diagram.

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