CLASS XI
SUMMER HOLIDAY HOMEWORK
(2025-26)

INDEX

ACCOUNTANCY

MEANING AND OBJECTIVES OF ACCOUNTING

(A) MULTIPLE CHOICE QUESTIONS:-

1. Which is not a financial transaction -
A. Receiving an order to sending goods for Rs 100000
B. Goods costing Rs 20000 given as charity
C. Salary paid to employees Rs 50000
D. Rent received Rs 5000

2. Characteristics of accounting are-
A. Summarising
B. Classifying
C. Interpretation of the results
D. All of the above

3. Not a sub-field of accounting-
A. Financial Accounting
B. Cost Accounting
C. Tax Accounting
D. Economic Accounting

4. Internal user are-
A. Owners
B. Investors
C. None of the above
D. Both A and B

5. Employees are external users-
A. True
B. False

6. Accounting is not an evidence in legal matters-
A. True
B. False

(B) FILL IN THE BLANKS-
7. Book-keeping ....then accounting.................

8. Accounting is the ....stage

9. "................ refers to the entire body of the theory and practice of accounting."

10. Accounting is affected by window dressing is a ....of accounting.

(C) SHORT ANSWER TYPE QUESTIONS-
11. Define accounting.

12. Explain in brief the following qualitative characteristics of accounting-
   (A) Reliability
   (B) Comparability

13. Give any two differences between Accounting and Accountancy.

14. Explain any two limitations of accounting.

15. Give any four objectives of accounting.

CHAPTER-2
BASIC ACCOUNTING TERMS

(A) MULTIPLE CHOICE QUESTIONS:- (1 Mark Each)

(i) Capital is

(a) Internal liability.

(b) External liability.

(c) Internal as well as External liability.

(d) None of these.

(ii) Goods taken by the proprietor for personal use is

(a) Sale.

(b) Drawings.

(c) Purchase.

(d) None of these.

(iii) Amount received or receivable against sale of goods is

(a) Revenue receipt.

(b) Capital receipt.

(c) Sometimes revenue receipt and sometimes capital receipt.

(d) None of these.

(iv) Amount paid or payable against purchase of goods is

(a) Revenue expenditure.

(b) Capital expenditure.

(c) Both (a) and (b).

(d) None of these.

(v) Goodwill is a/an

(a) Tangible Asset.

(b) Intangible Asset.

(c) Current Asset.

(d) Fictitious Asset.

(B) Determine, if the following are Assets, Liabilities, Capital, Revenue from Operations, Revenues, Expenses or none: (1 Mark Each)

(a) Machinery, (b) Purchases, (c) Stock, (d) Creditors, (e) Capital,

(f) Salary paid to a clerk, (g) Sales, (h) Furniture, (i) Interest received and (j) Rent paid.

(C) SHORT ANSWER TYPE QUESTIONS-(3 Marks Each)

1. Distinguish between Loss and Expense

2. Explain the meaning of **any four** of the following terms:

(i) Account

(ii) Capital

(iii) Solvent

(iv) Revenue

(v) Debtors.

3. Distinguish between Opening Stock and Closing Stock.

4. Write a note on types of assets with one example of each.

5. A firm earns revenue of ₹ 21,000 and the expenses to earn this revenue are ₹ 15,000. Calculate its income.

Q1:
What will be effect of the following on the Accounting Equation?
(i) Started business with cash ₹ 45,000
(ii) Opened a Bank Account with a deposit of ₹ 4,500
(iii) Bought goods from M\s. Sun & Co. for ₹ 11,200

Q.2
Show the Accounting Equation for the following transactions:

		₹
(i)	Gopi started business with cash	25,000
(ii)	Purchased goods from Shyam	10,000
(iii)	Sold goods to Sohan costing ₹ 1,800	1,500
(iv)	Gopi withdrew from business	5,000

Q.3

Develop an Accounting Equation from the following transactions:

		₹
(i)	Mohan commenced business with cash	50,000
(ii)	Purchased goods for cash	30,000
(iii)	Purchased goods on credit	20,000
(iv)	Sold goods (costing ₹ 10,000) for	12,000
(v)	Bought furniture on credit	2,000
(vi)	Paid cash to a creditor	15,000
(vii)	Salary paid	1,000

Q.4 Use accounting equation to show the effect of the following transactions of M/s Royal traders.

(a) Started business with cash ₹ 1,20,000.

(b) Purchased goods for cash ₹ 10,000.

(c) Rent Received ₹ 5,000.

(d) Salary outstanding ₹2,000.

(e) Sold goods for cash (costing ₹ 5,000) ₹ 7,000.

(f) Goods destroyed by fire ₹500.

Q.5 Raghu had the following transactions in an accounting year:
(i) Commenced business with cash ₹50,000.
(ii) Paid into bank ₹10,000.
(iii) Purchased goods for cash ₹20,000 and credit ₹30,000.
(iv) Sold goods for cash ₹40,000 costing ₹30,000.
(v) Rent paid ₹500.
(vi) Rent outstanding ₹100.
(vii) Bought furniture ₹5,000 on credit.
(viii) Bought refrigerator for personal use ₹5,000.
(ix) Purchased motorcycle for cash ₹20,000.
Create an Accounting Equation to show the effect of the above and also show his Balance Sheet.

Q.6 If the capital of a business is ₹3,00,000 and liabilities are ₹ 50,000, loss ₹ 70,000, calculate the total assets of the business.

Q.7 (a) Mohan started a business on 1st April, 2021 with a capital of ₹ 10,000 and borrowed ₹ 3,000 from a friend. He earned a profit of ₹ 5,000 during the year ended 31st March, 2022 and withdrew cash ₹ 4,000 for personal use. What is his capital on 31st March, 2022?

(b) Mahesh started a business with a capital of ₹ 15,000 on 1st April, 2021. During the year, he made a profit of ₹ 3,000. He owes ₹ 2,500 to suppliers of goods. What is the total of assets in his business on 31st March, 2022?

Q.8 Calculate the amount of External Equities as on 31st March, 2024 in the following cases:

(i) On 31st March, 2024, total assets and capital were ₹15,00,000 and ₹10,50,000 respectively

(ii) On 1st April, 2023, Ramesh started business with a capital of ₹ 3,00,000 and a loan of ₹ 3,00,000 borrowed from a fixed. During the year, he earned a profit of ₹ 1,50,000, introduced an additional capital of ₹ 1,80,000 and had withdrawn ₹ 90,000 for his personal use. On 31st March, 2024 total assets were ₹15,00,000.

BUSINESS STUDIES

Multiple choice questions

1. Business risk is not likely to arise due to
   (a) Changes in government policy
   (b) Good management
   (c) Employee dishonesty
   (d) Power failure

2. The industries which provide support services to other industries are known as
   (a) Primary industries
   (b) Secondary industries
   (c) Commercial industries
   (d) Tertiary industries

3. Which of the following is not an example of non-economic activity?
   (a) Patriotism
   (b) teaching
   (c) sentiment
   (d) sympathy

4. A partner whose association with the firm is unknown to the general public is called
   (a)Active partner   (b) Sleeping partner   (c)Nominal partner   (d)Secret partner

5. In case of _____ Registration is compulsory

   (a) Sole Proprietorship   (b) Partnership   (c) Company   (d) None of these

6. The karta in Joint Hindu family business has
   (a) No liability for debts   (b) Unlimited liability   (c) Joint liability   (d) Limited liability

7. Which of the following statement is not true about minor partner?
   (a) He has to bear losses also.
   (b) He can inspect books of accounts.
   (c) He has an option to continue with the firm after attaining majority.
   (d) He only shares profit.

8. According to the Indian Companies Act 1956, minimum number of members to form a public company are:
   (a)   10   (b) 7   (c) 15   (d) 1

9. The Chinese traders frequently visited Calicut to acquire this item from India.
   (a) Cotton   (b) Pepper   (c) Diamonds   (d) All of these

10. Gurmeet and Gurpreet are doing separate business of installing centralised Air Conditioning units in Delhi. They enter into partnership contract to install centralised AC unit in a hotel in Chandigarh. Which type of partnership is being highlighted?
    (a) Partnership at will   (b) Particular Partnership
    (c) Limited Partnership   (d) General Partnership

11. Which form of business is suitable for business where personalised services are rendered:
    (a) Partnership   (b) Sole proprietorship   (c) HUF   (d) Cooperative society

12. Shenoy is a shareholder in a company holding 10,000 shares of Rs. 10 each on which he has already
    paid Rs. 8 per share. What will be his liability in the event of losses or company's failure to pay debts?
    (a) Rs.20,000   (b) Rs.21,000   (c) Rs.22,000   (d) Rs.20,200

13. The maximum number of members in a private company are:
    (a) 2 (b) 200   (c)2000   (d) 20,000

14. _____- is called the parent of the company
    (a) Director   (b) Shareholder   (c) Promoter   (d) Registrar

15. Punjabi and Multani merchants handled business in_____ region.
    (a) Northern   (b) Eastern   (c) Western   (d) Southern

16. Risk is not likely to arise due to:
(a) Good management
(b) Change in government policy
(c) Employee Dishonesty
(d) Power failure

17. A form of business organisation which is owned, managed and controlled by one person having
    unlimited liability.
    (a) One Person Company   (b) Sole Proprietorship   (c) Both A and B   (d) None of them

18. Members of Hindu Undivided Family have _____ liability
    (a) Limited   (b) Unlimited   (c) Joint   (d) None of them

19. In ancient times Surat was famous for:
    (a) Diamonds   (b) Pepper   (c) Textile with gold zari   (d) Perfumes

20. Private co. can be started with just ___ number of members, whereas public company requires at   least
    ____ number of members.

(a) 2,7   (b) 2,3   (c) 7,2   (d) 3,2

Case study-based Questions

21. Bhagirathi Ltd. is a popular company manufacturing water Purifiers. Its product is very much liked by people in the market. The traders are in a race to become the company's distributors. The company had been earning huge profits for many years. However, in the year 2020, the company's half yearly report shows a great decline in the company's profit. The top management is worried about this. A team of specialists from outside is appointed to solve this serious problem. After a thorough examination, the specialists presented the following reasons for the decline in the profits of the company.

(i)Increase in competition and change in taste of the consumers.

(ii) Theft of cash and goods by the employees.

(iii)Identify and explain the two causes of decline in profits.

22. Majestic Pvt. Ltd. is a reputed company manufacturing Laptops. The company is earning a considerable profit. Both the proprietors and the employees are putting their best efforts to make good quality products available to the customers at a low price, paying its shareholders a good number of dividends and the employees a reasonable remuneration. This contributes to the successful operations of the business. With increased profits over time, the company's foundation becomes strong, and it earns a good reputation in the society. It utilises its profits to finance its growth and expansion requirements. Explain the role of profit in business of Majestic Pvt. Ltd. by quoting the lines from the above para.

23. Arpita Sharma, after completing her MBA, began to help her father, Mr. Ram Sharma, in his business. The business had a limited capital investment. Arpita wanted to use the modem business techniques in every area of business, namely, purchase, sales, production, finance, etc. In fact, she wanted to implement the methods, which she had learnt in her MBA course, in her father's business. As soon as she started adopting the latest techniques, the workers began to protest and resist the changes. So, she became disappointed and left her father's business. She started working in an MNC. Mr. Ram Sharma was unable to assume the responsibility of all managerial tasks such as purchasing, selling, financing, etc. Good workers started leaving the organisation. The goodwill of the business in the market went on declining. In no time, the liabilities of the business became many times more than the assets. On account of the pressure exerted on him by the creditors, Mr. Ram Sharma had to repay the debts of the business by disposing off his personal properties.

(a) Identify the form of business organisation discussed in the above para.

(b) Quoting the relevant lines from the para explain any three limitations of the form of business organisation identified in (a).

24. Mr. Harsh Gupta contracted with a firm. According to the contract, he has advanced a loan of Rs. 20 lakh to the firm and in exchange he got the power to take a few decisions regarding the firm's business. Besides, he got 9% interest on the loan and 12% of profits earned by the firm.

Is Mr. Harsh Gupta a partner of the firm? Give reasons in support of your answer.

25. APEX Ltd. took a loan of Rs. 30 lakh from a bank for its growth and expansion plans. The company was unable to repay the loan amount because of heavy losses incurred in the business on a continuous basis. The management of the company asked its shareholders to contribute towards repayment of the loan.

But the shareholders refused as they had already paid the full amount due on their shares. The bank filed a case against APEX Ltd. in the court. The court held that the shareholders of the company were not liable to repay the loan as they had not unpaid amount on shares.

(a) Is the court's decision justified? Give reason in support of your answer.

(b) Which characteristic of the company form of organisation protected the shareholders? Explain.

26. Explain any four auxiliaries to trade.

27. If registration is optional, why do partnership firm willingly go through this legal formality and get themselves registered? Explain by giving reasons.

28. All the members of a company sitting in a general meeting were killed by a bomb. Was the company wound up? Explain.

29. A member, who held all shares except one share of a timber company, insured the company's timber in his own name. Can he claim compensation from the insurance company? Explain.

30. Differentiate between:

(a) Business, Profession and Employment

(b) Private and Public company

(c) Particular partnership and Partnership at will

(d) General partner and limited partner

(e) Economic and non economic activities

31. Siya ram Industries pvt. ltd.is a large company which produces agricultural products like jute and cotton, etc. Instead of selling these agricultural products in the market, the company uses these as raw materials to produce jute bags and cotton cloth in its own established textile industry. To which type and subtype of industries are related the different products described in the above para? Explain.

32. After completing the masters, Shalu and Rachna decided to set up a textile mill to earn income. Their main job is to purchase yarn from the market and convert it into textile. Their textile is available in the variants of cotton, silk and rayon. They sell these under the brand name 'Little extra' and earn a reasonable profit of 15% on cost. They worked very hard to flourish the business on a regular basis, and their business is of superior quality and low price. Their business was running very well. But one day, the mill caught fire, and as a result they had to suffer a heavy loss. However, Shalu and Rachana did not lose their heart, and worked even harder. Gradually, their business was back to normal. Now they are fully satisfied with their business.

Quoting the lines from the above para, explain any four characteristics of business.

33. Kamal Gupta and Vimal Gupta are two brothers, who inherited some ancestral property. They decided to form a Hindu Undivided Family (HUF) business consisting of four male members. Kamal Gupta is the elder brother. So, he became 'Karta'. The business took a loan of ₹ 20 lakh from Punjab National Bank having maturity period of 5 years. Due to poor financial position of the business, they were unable to repay the loan. They sold the ancestral property for ₹ 10 lakh and paid the same to Punjab National Bank. They could not pay the balance amount of loan with interest. The bank filed a case for recovery of the balance amount. Kamal Gupta pleaded the court that the loan was taken for the purpose of business, therefore, all the members of the business were liable to repay the loan. The court held that all other members were responsible only to the extent of their share in business, and the business property was already sold. However, Kamal Gupta, being 'Karta' would have to repay the balance amount even by selling his personal properties. Kamal Gupta had to sell some of his personal assets to repay the balance amount to bank loan.

(a) Is the court's decision justified? Give reasons in support of your answer.

(b) State any three other features of HUF businesses.

34. Jute is mainly produced in Bengal, while Tea in Assam & Darjeeling but they are required for consumption in different parts of the country. How can this hindrance of place be removed? Under what business activity will it be categorised? Explain.

ECONOMICS (030)

Worksheet - (Statistics) CHAPTER 1

Q1. Read the following statements. Choose one of the correct alternatives.

Assertion (A): Production is an economic activity.

Reason (A): Production includes all those activities which are undertaken to produce goods and services for generation of income and satisfying human wants.

Alternatives:

a. Both assertion(A) and reason(R) are true, and reason is the correct explanation of assertion.

b. Both assertion(A) and reason(R) are true, but reason is not the correct explanation of assertion.

c. Assertion(A) is true, but reason (R) is false.

d. Assertion is false, but reason(R) is true.

Q2. Scarcity of resources applies to all:

    A. Individuals

    B. Organisations

    C. Countries

    D. All of the above

Q3. Which economist shifted the emphasis of economics from wealth to welfare?

    A. Adam Smith

    B. Samuelson

    C. Alfred Marshall

    D. Lionel Robbins

Q4. Scarcity definition of Economics has been given by Adam Smith.

    (True/ False)

Q5. ----------------- is an economic activity which deals with use of goods and services for satisfaction of human wants.

   (Consumption / Production)

Q6. What is Microeconomics and Macroeconomics?

Q7. Is economics a science or an art?

Q8. Is economics a positive science or normative science or both?

WORKSHEET ch2, (Statistics)

Q1. Read the following statements. Choose one of the correct alternatives.

Assertion (A): statistics are a number of facts.

Reason (A): single and isolated figures are not statistics as such figures can not be compared.

Alternatives:

a. Both assertion(A) and reason(R) are true, and reason is the correct explanation of assertion.

b. Both assertion(A) and reason(R) are true, but reason is not the correct explanation of assertion.

c. Assertion(A) is true, but reason (R) is false.

d. Assertion is false, but reason(R) is true.

Q2. **Statement** 1: a single figure can never be called statistics.

Statement 2: Qualitative characteristics like intelligence and beauty can be easily included in statistics.

Alternatives:

    a. Both the statements are true

    b. Both the statements are false

    c. Statement 1 is true and statement 2 is false

    d. Statement 2 is true and statement 1 is false

Q3. **Statement** 1: The purpose of collecting statistical data needs to be decided in advance.

Statement 2: In plural sense, the term 'statistics' means statistical methods.

Alternatives:

    a. Both the statements are true

    b. Both the statements are false

    c. Statement 1 is true and statement 2 is false

    d. Statement 2 is true and statement 1 is false

Q4. . Read the following statements. Choose one of the correct alternatives.

Assertion (A): in plural sense, statistics means a collection of numerical facts.

   Reason (A): statistics should be enumerated according to a reasonable standard of accuracy.

Alternatives:

a. Both assertion(A) and reason(R) are true, and reason is the correct explanation of assertion.

b. Both assertion(A) and reason(R) are true, but reason is not the correct explanation of assertion.

c. Assertion(A) is true, but reason (R) is false.

d. Assertion is false, but reason(R) is true.

Q5. The word 'statistics' is used as:

    A. Singular

    B. Plural

    C. Both (A) and (B)

    D. None of these

Q6. Statistics as a singular noun means:

    A. Statistical Data

    B. Statistical Methods

    C. Inductive Statistics

    D. Descriptive Statistics

Q7. Statistics as a plural noun indicates:

    A. Statistical Methods

    B. Descriptive Statistics

    C. Statistical Data

    D. Inductive Statistics

Q8. Which of the following is not a limitation of Statistics?

    A. Statistics can be misused

    B. Statistics does not study qualitative phenomena

    C. Statistics laws are not exact

    D. Statistics deals with aggregates of facts

Q9. State the five main stages of Statistical study.

Q10. Categorise the following into 'quantitative' and 'qualitative' data:

             a. Expenditure of family

             b. Marks of students

             c. Honesty of employees

             d. Wages of workers

             e. Intelligence of students

             f. Age of people.

WORKSHEET - (CHAPTER - Primary And Secondary data)

Q1. Primary data is preferred over Secondary data where:

    A. Time available is short.
    B. Accuracy is important
    C. Sufficient finance is not available
    D. Much accuracy is not required

Q2. Data collected from 'The Times of India' is an example of:

    A. Primary data
    B. Secondary data
    C. None of these
    D. Census

Q3. A good questionnaire should have:

    A. Minimum questions
    B. Concise
    C. Clear
    D. All of the above

Q4. -------------- Data is originally collected by an investigator for the first time for some specific purpose. (Primary/Secondary)

Q5. Census method is not possible in case of heterogeneous population. (True/False)

Q6. Read the following statements. Choose one of the correct alternatives.

Assertion (A): Primary data is original.

Reason (A): Primary data is collected by the investigator himself.

Alternatives:

a. Both assertion(A) and reason(R) are true, and reason is the correct explanation of assertion.

b. Both assertion(A) and reason(R) are true, but reason is not the correct explanation of assertion.

c. Assertion(A) is true, but reason (R) is false.

d. Assertion is false, but reason(R) is true.

Q7. **Statement** 1: Indirect oral investigation method is a very costly method.

Statement 2: The degree of accuracy is extremely high in case of indirect oral investigation.

Alternatives:

    a. Both the statements are true

    b. Both the statements are false

    c. Statement 1 is true and statement 2 is false

    d. Statement 2 is true and statement 1 is false

Q8. Distinguish between Primary Data and Secondary Data on the basis of 'originality'.

Q9. What do you mean by a questionnaire?

Q10. What do you mean by census method? Give its merits and demerits.

Q11. What is the non-random method of sampling.

Q12. What do you mean by random sampling?

PHYSICAL AND HEALTH EDUCATION

Practical 1 :- Details of Athletics
1. History of Athletics
2. Latest rules and regulations
3.Important terminologies
4. Fundamental skills
5. Award winners name
6. Play Field specifications and
7. Tournaments.

Practical 2 :- Details of any major game
1. History of the game
2. Latest rules and regulations
3.Important terminologies
4. Fundamental skills
5. Award winners name
6. Play Field specifications and
7. Tournaments.
Practical 3 :-
Any 6 ASANAS-
Details And Procedure

ENGLISH CORE

Assignment 1: Book Review

- *Book:* "Wings of Fire" or "Ignited Minds" by APJ Abdul Kalam

- *Instructions:*

  1. Read the chosen book thoroughly.

  2. Write a book review including:

     - Brief summary of the book

     - Key takeaways or insights

     - Personal reflection or connection to the book

- Recommendations for readers

3. Word limit: 500-750 words

Assignment 2: Literary Devices

- *Task:* Prepare a list of prominent literary devices, including:

    - Metaphor

    - Simile

    - Personification

    - Alliteration

    - Hyperbole

    - Irony (Verbal, Situational, Dramatic)

    - Symbolism

    - Imagery

    - Onomatopoeia

    - Allusion

    - Oxymoron

    - Juxtaposition

    - Foreshadowing

- *Instructions:*

    1. Define each literary device.

    2. Provide examples from literature or poetry.

    3. Explain the effect or purpose of each device.

Assignment 3: Speech Writing

- *Topic:* "Yoga: The Gift of East to West"

- *Instructions:*

    1. Write a speech to be delivered in the morning assembly.

    2. Highlight the benefits of yoga for physical and mental well-being.

    3. Emphasize the importance of yoga in modern times.

    4. Word limit: 250-350 words

Assignment 4: Poster Making

- *Topic:* "Need for Female Safety in nation"

- *Instructions:*

    1. Design a visually appealing poster.

    2. Include slogans or taglines promoting girl safety.

    3. Highlight the importance of awareness and collective responsibility.

    4. Use colors and graphics effectively.

Additional Instructions

- *Submission:* All assignments should be submitted in a folder with your name, class, and assignment title.

- *Deadline* : June 30 , 2025

- *Grading criteria:* Content, creativity, presentation, and overall effort will be evaluated.

HISTORY

Make a project file on the given topics. (Choose any one topic)
SUGGESTIVE TOPICS FOR PROJECTS - CLASS XI A5

1. Facets of the Industrialization in sixteenth- eighteenth centuries.

2. Crusades: causes; rationale; events; outcomes; Holy Alliance

3. Ancient History in depth: Mesopotamia

4. Greek Philosophy and City States

5. Contributions of Roman Civilization

6. The spirit of Renaissance: Manifestation in art; Literature; Sculpture; Influence on Trading
Community; Social Fabric; Philosophy; Political Values; Rational Thinking; Existentialism

7. Aspects of Development -South American States /Central American States

8. Different schools of thoughts- Realism: Humanism: Romanticism

9. Piecing together the past of Genghis Khan

10. Myriad Realms of Slavery in ancient, medieval, and modern world

11. History of Aborigines – America /Australia

12. Facets of Modernization – China /Japan/Korea.

(Use A3 File)

GEOGRAPHY

Prepare a file of following topics on A3 size sheets

Chapter-1

1. Introduction of Map and Essential of Map Making

2. Flowchart of Classification of Map

3. Use of Maps

Chapter-2

1. Introduction and Importance of Map Scale

2. Methods of Map Scale

3. Conversion of Map Scale

4. Construction of Map Scale

Chapter-3

1. Parallels of Latitudes: Definition, Characteristics, Construction

2. Meridians of Longitudes: Definition, Characteristics, Construction

3. Difference Between Parallels of Latitude & Meridians of Longitude

4. Concepts of Time: Local Time, Standard Time, Time Zone & International
Date line

Chapter-4

1. Map Projection: Definition & Importance

2. Essential of Map Projection

3. Flowchart of Classification of Map Projection

4. Draw and Describe the Properties, Uses & Limitations of following Map
Projection —
I. Conical Projection with one Standard Parallel
II. Cylindrical Equal Area Projection

III. Mercator's Projection

CORE MATHEMATICS

- Activity 1. To find the number of subsets of a given set and verify that if a set has n number of
- elements , then the total number of subsets is 2 n .
- Activity 2. To verify that two sets A and B , n(A= pq and the total number of relations from A to B is
- 2 pq where n(A) = p and n(B)=q.
- Activity 3. To identify a relation and a function.
- Activity 4. To verify distributive law for three given non empty sets A , B and C.
- Complete the worksheet of sets and relation and function in math note book that will be shared in the class group

PSYCHOLOGY

Prepare a file.(practical)

Write about the given topics according to the instructions given in class.

1. Psychological Testing
2. Span of attention
3. Illusion – Muller lyer

Revise

Chapter –1 ,What is Psychology

Chapter -2 ,Methods of enquiry in psychology

Project Work

Watch a movie (based on any psychological disorder) and prepare a project (in your note book – Register) as per the instructions given in the class.

INFORMATICS PRACTICES

Q1. What is the purpose of using MySQL?

Q2. Differentiate between:

Database State and Database Schema

Primary key and foreign key

Degree and cardinality of a relation

Q3. Compared to a file system, how does a database management system avoid redundancy in data through a database?

Q4. Differentiate between DDL and DML commands.

Q5. Default format of date in MySQL is _____

Q6. Write the command to create the below mentioned table named as Student-

Take the suitable data Types and make RollNo as a Primary Key-

Rollno Name Stream Fees Age

101 Arun Kumar Computer 750.00 17

102 Divya Janeja Computer 750.00 18

103 KesharMehra Biology 500.00 16

104 Harish Singh Economics 300.00 19

105 Sarika Biology 500.00 20

a) Write the command to insert records having RollNo as 101 and 102.

b) Write the command to display Name and Stream from the Student table.

c) Write the command to display the square of fees from the Student table.

d) Write the command to display those records whose Stream is Computer.

APPLIED MATHEMATICS

- To write all the standard law of logarithms and antilogarithms.
- To write all the properties of indices.
- To write all the key points of calendar and clock.
- To solve examples of chapter 1, 2 and 3 from applied maths book ML Agarwal.

CHEMISTRY

1. A gas is found to have the formula $(CO)x$. Its VD is 70 the value of x must be:

(1) 7

(2) 4

(3) 5

(4) 6

2. 4.4 g of an unknown gas occupies 2.24 L of volume at STP. The gas may be:

(1) N_2O

(2) CO

(3) CO_2

(4) 1 & 3 both

3. At NTP the density of a gas is 0.00445 g/mL then find out its V.D. and molecular mass.

(1) 120

(2) 150

(3) 90

(4) 100

4. Weight of 1 litre gas is 2 g then find out its molecular mass

(1) 22.4

(2) 44.8

(3) 11.2

(4) 5.6

5. The vapour densities of two gases are in the ratio of 1: 3. Their molecular masses are in the ratio of:

(1) 1: 3

(2) 1: 2

(3) 2: 3

(4) 3: 1

6. At NTP, 5.6 litre of a gas weighs 8 grams. The vapour density of gas is:

(1) 32

(2) 40

(3) 16

(4) 8

1. An oxide of metal M has 40% by mass of oxygen. Metal M has atomic mass of 24. The empirical formula of the oxide is:
(1) M2O
(2) M2O3
(3) MO
(4) M3O4

2. A compound of X and Y has equal mass of them. If their atomic weights are 30 and 20 respectively. Molecular formula of the compound is:
(1) X2Y2
(2) X3Y3
(3) X2Y3
(4) X3Y2

3. A hydrocarbon contains 80%C. The vapour density of compound is 30. Molecular formula of compound is: -
(1) CH3
(2) C2H6
(3) C4H12
(4) All of these

4. Two elements X (Atomic weight = 75) and Y (Atomic weight = 16) combine to give a compound having 75.8% of X. The empirical formula of compound is:
(1) XY
(2) X2Y
(3) X2Y2
(4) X2Y3

5. In a compound, A (Atomic weight = 12.5) is 25% and B (Atomic weight = 37.5) is 75% by weight. The Empirical formula of the compound is:
(1) AB
(2) A2B
(3) A2B2
(4) A2B3

6. Insulin contains 3.4% sulphur. The minimum mol. wt. of insulin is:
(1) 941.176
(2) 944
(3) 945.27
(4) None

1. 0.5 moles of O2 combine with Mg to form oxide MgO. The mass of Mg (At. mass 24) that has combined is:
(1) 72 g
(2) 36 g
(3) 24 g
(4) 94 g

2. What quantity of lime stone on heating will give 56 kg of CaO?
(1) 1000 kg
(2) 56 kg
(3) 44 kg

(4) 100 kg

3. In this reaction, $2Al + O_2 \rightarrow Al_2O_3$, 9 grams of Al will react, with
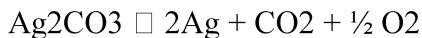
(1) 6 gm O_2

(2) 8 gm O_2

(3) 9 gm O_2

(4) 4 gm O_2

4. 2.76 g of silver carbonate on being strongly heated yields a residue weighing:

$Ag_2CO_3 \rightarrow 2Ag + CO_2 + \frac{1}{2} O_2$

(1) 2.16 g

(2) 2.48 g

(3) 2.32 g

(4) 2.64 g

5. The volume of gas at NTP produced by 100 gm of CaC_2 with water: $CaC_2 + 2H_2O \rightarrow Ca(OH)_2 + C_2H_2$

(1) 70 litre

(2) 35 litre

(3) 17.5 litre

(4) 22.4 litre

6. In the following reaction, if 64 g of O_2, react with SO_2. What will be volume of SO_3 at STP.

$2SO_2 + O_2 \rightarrow 2SO_3$

(1) 5.6 L

(2) 22.4 L

(3) 89.6 L

(4) 112.5 L

1. For reaction $A + 2B \rightarrow C$. The amount of product formed by starting the reaction with 5 moles of A and 8 moles of B is:

(1) 5 mol

(2) 8 mol

(3) 16 mol

(4) 4 mol

2. 4 gm of hydrogen are ignited with 4 gm of oxygen. The weight of water formed is:

(1) 0.5 gm

(2) 3.5 gm

(3) 4.5 gm

(4) 2.25 gm

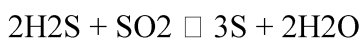3. $A + 5B \rightarrow C + 3D$ Calculate the produced mole of C.

Given A = 10 mol, B = 10 mol

(1) 2 mol

(2) 5 mol

(3) 6 mol

(4) 1 mol

4. If 1.6 g of SO_2 and 1.5×10^{22} molecules of H_2S are mixed and allowed to remain in contact in a closed vessel until the reaction

$2H_2S + SO_2 \rightarrow 3S + 2H_2O$

Proceeds to completion. Which of the following statement is true?
(1) Only 'S' and 'H2O' remain in the reaction vessel.
(2) 'H2S' will remain in excess
(3) 'SO2' will remain in excess
(4) None

5. At NTP, in a container 100 mL H2 and 60 mL of Cl2 are mixed together. Then find out the produced volume of HCl:
(1) 55.5 L
(2) 0.12 L
(3) 22.4 L
(4) 44.4 L

1. For complete combustion of 2.24 litre of butane (C_4H_{10}), the produced moles of CO_2 will be:
(1) 4
(2) 0.2
(3) 0.4
(4) 3

2. For complete combustion of 2 mol octane C_8H_{18}, volume of O_2 at STP is:
(1) 740 L
(2) 560 L
(3) 440 L
(4) 220 L

3. The law of multiple proportion was proposed by:
(1) Lavoisier
(2) Dalton
(3) Proust
(4) Gay lussac

4. When 100 g of ethylene polymerizes to polyethylene according to equation
$nCH_2 = CH_2 – (–CH_2 – CH_2–)$ n-. The weight of polyethylene produced will be:

5. A chemical equation is balanced according to the law of:
(1) Multiple proportions
(2) Constant proportions
(3) Reciprocal proportions
(4) Conservation of mass

1. Molecular weight of dibasic acid is W. Its equivalent weight will be:

2. 1 mol O_2 will be equal to:
(1) 4 g equivalent oxygen
(2) 2 g equivalent oxygen
(3) 32 g equivalent oxygen
(4) 8 g equivalent oxygen

3. Volume of 1 g equivalent of H2 at NTP is:
(1) 5.6 L
(2) 11.2 L
(3) 22.4 L

(4) 44.8 L

4. Molecular weight of tribasic acid is W. Its equivalent weight will be:

5. A, E, M and n are the atomic weight, equivalent weight, molecular weight and valency of an element. The correct relation is:

(1) $A = E \times n$

(2) $A = M$

E

(3) $A = M$

n

(4) $M = A \times n$

6. 1 g equivalent of a substance is present in -

(1) 0.25 mol of O_2

(2) 0.5 mol of O_2

(3) 1.00 mol of O_2

(4) 8.00 mol of O_2

1. 0.126 g of an acid requires 20 ml of 0.1 N NaOH for complete neutralization. Eq. wt. of the acid is:

(1) 45

(2) 53

(3) 40

(4) 63

2. If equivalent weight of S in SO_2 is 8 then equivalent weight of S in SO_3 is:

(1) 8×2

3

(2) 8×3

2

(3) $8 \times 2 \times 3$

(4) $2 \square\square 3$

8

3. 0.45 g of acid (molecular wt. = 90) was exactly neutralized by 20 mL of 0.5 N NaOH. Basicity of the acid is -

(1) 1

(2) 2

(3) 3

(4) 4

4. 0.5g of a base was completely neutralized by 100 mL of 0.2 N acid. Equivalent weight of the base is

(1) 50

(2) 100

(3) 25

(4) 125

5. If m_1 g of a metal A displaces m_2 g of another metal B from its salt solution and if their equivalent weight is E_1 and E_2 respectively then the equivalent weight of A can be expressed by:

1. The equivalent weight of an element is 4. It's chloride has a V.D. 59.25. Then the valency of the element is:

(1) 4

(2) 3

(3) 2

(4) 1

2. Specific heat of a solid element is 0.1 Cal g–1 °C–1 and its equivalent weight is 31.8. Its exact atomic weight is:

(1) 31.8

(2) 63.6

(3) 318

(4) 95.4

3. Relative density of a volatile substance with respect to CH4 is 4. Its molecular weight would be:

(1) 8

(2) 32

(3) 64

(4) 128

4. The atomic mass of an element is 27. If valency is 3, the vapour density of the volatile chloride will be:

(1) 66.75

(2) 6.675

(3) 667.5

(4) 81

5. 71 g of chlorine combines with a metal giving 111 g of its chloride. The chloride is isomorphous with MgCl2.6H2O. The atomic mass of the metal is:

(1) 20

(2) 30

(3) 40

(4) 69

PHYSICS

❖ DO PROJECT FILE AND LAB WORK. TOPIC AND LAB WORK DETAILS WILL BE SHARED IN COMMUNITY GROUP SEPARATELY.

BIOLOGY

17	Biology	1. Investigatory Project : Collect five twigs of plants and pictures of five animals and write (describe) complete classification . 2. Complete biology practical record .

POLITICAL SCIENCE

Prepare a Project file (A3 Size sheet) on any one topic
1. Making of the Constitution.
2. Elections in India.
3. Working of the Indian Judiciary System.
4. Social Justice: Are ethics followed in Indian Politics
5. Human Rights Act and its gratification in India.
6. Political impact on Indian Legislation.