

Mahaveer Public School

Class : XI

English Core

1. Make a collage of classified advertisement.(Select multiple topics. Take cutting from newspapers)
2. Write a book review of one of your favourite books read.

Points to be included:

Language Characters Theme Conclusion (400 words)

- 3 .Write a digital research on the topic Covid-19 and it's impacts on social life .(200-250 words)

Biology

- (A) Draw the diagram of human digestive system, write the name of the enzymes secreted by different parts of the alimentary canal in your note book.
- (B) Draw the neat and labelled diagram of the following in your note book –
- (i) Different parts of the human stomach.
 - (ii) Types of teeth and their arrangement in the jaw.
 - (iii) Duct system pouring into the duodenum.
 - (iv) T.S. of alimentary canal.
 - (v) Exchange of gases (Oxygen and Carbon Dioxide) in alveoli and capillaries.
 - (vi) Draw the diagram of different types of WBC and write their numbers and functions in front of them.
- (C) Write a brief note on the digestive disorders, disorders of respiratory system and circulatory system.

Physics

1. Mathematical Tools: Learn all the mathematical formulas
2. Physical World – Read the chapter and learn the tables given in chapter.
3. Units and Dimensions – Revise all the theory topics as: Definition of unit to applications of dimensional analysis, errors and their different types, and applications of errors.

Important: Learn the table of Dimensional formulae.

Numericals : From NCERT and worksheets given in online classes. (solved/unsolved all)

4. Motion in a straight line: Revise all the theory topic: Definition, Displacement/Distance, velocity/speed, acceleration, average velocity & average speed. Uniform motion, non uniform motion and their graphical presentation, Kinematic equations of motion (their derivation by mechanical method, graphical method and differential integration method, relative motion.

Numericals- From NCERT and worksheets given in online classes (solved/unsolved all).

Chemistry

- 1.Basic Concepts of Chemistry
- 2.Atomic Structure
- 3.Any one investigatory project from Lab Manual

Physical Education

Q1. Make a full chart: Any one game of your choice (Atheletics , Basketball, Volleyball, Cricket , Yoga).

- History of the game
- Labeled diagram of court, field, and Track and Field with dimensions.
- Rules and regulations of the game.
- Terminologies of the game
- Fundamental skill of the game
- Any five personalities of the game

Mathematics

1. ACTIVITY/PROJECT

1	OBJECTIVE: To interpret geometrically the meaning of $i = -1$ and its integral powers. MATERIAL REQUIRED Cardboard, chartpaper, sketchpen, ruler, compasses, adhesive, nails, thread.
2	OBJECTIVE : 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 . MATERIAL REQUIRED Paper, different coloured pencils.
3	OBJECTIVE : To verify that for two sets A and B, $n(A \times B) = pq$ and the total number of relations from A to B is 2^{pq} , where $n(A) = p$ and $n(B) = q$. MATERIAL REQUIRED Paper, different coloured pencils.
4	OBJECTIVE : To represent set theoretic operations using Venn diagrams. MATERIAL REQUIRED Hardboard, white thick sheets of paper, pencils, colours, scissors, adhesive.
5	OBJECTIVE : To verify distributive law for three given non-empty sets A, B and C, that is, $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ MATERIAL REQUIRED Hardboard, white thick sheets of paper, pencil, colours, scissors, adhesive.

STUDENT CAN GO WITH THE LINK FOR DETAIL:

<http://www.ncert.nic.in/exemplar/labmanuals.html>

Q2. On Chart Paper Draw /Write the following formulae and do one Question based on each formula from any book.

sin θ cos θ tan θ			
$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
\sin	0	1	∞
\cos	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	0
\tan	0	∞	∞
\cot	∞	1	0
\sec	2	$\sqrt{2}$	2
\cosec	∞	2	$\sqrt{3}$
sin(A+B) = sin A cos B + cos A sin B			
sin(A-B) = sin A cos B - cos A sin B			
cos(A+B) = cos A cos B - sin A sin B			
cos(A-B) = cos A cos B + sin A sin B			
tan(A+B) = $\frac{\tan A + \tan B}{1 - \tan A \tan B}$			
tan(A-B) = $\frac{\tan A - \tan B}{1 + \tan A \tan B}$			
tan($\frac{\pi}{4} \pm x$) = $\frac{1 + \tan x}{1 \mp \tan x}$			
cot(A ± B) = $\frac{\cot A \cot B \pm 1}{\cot B + \cot A}$			
sin 2A = $2 \sin A \cos A$			
sin 2A = $\frac{2 \tan A}{1 + \tan^2 A}$			
tan 2A = $\frac{1 - \tan^2 A}{1 + \tan^2 A}$			
$\cos 2A = \cos^2 A - \sin^2 A$			
$= 2 \cos^2 A - 1$			
$= 1 - 2 \sin^2 A$			
$= 1 + \tan^2 A$			
$1 + \cos 2A = 2 \cos^2 A$			
$1 - \cos 2A = 2 \sin^2 A$			
$\sin 3A = 3 \sin A - 4 \sin^3 A$			
$\cos 3A = 4 \cos^3 A - 3 \cos A$			
$3 \tan A - \tan^3 A$			
$\tan 3A = 1 - 3 \tan^2 A$			
$\sin 18^\circ = \frac{\sqrt{5} - 1}{4} = \cos 72^\circ$			
$\sin 36^\circ = \frac{\sqrt{10 - 2\sqrt{5}}}{4} = \cos 54^\circ$			
$\sin 54^\circ = \frac{\sqrt{5} + 1}{4} = \cos 36^\circ$			
$\sin 72^\circ = \frac{\sqrt{10 + 2\sqrt{5}}}{4} = \cos 18^\circ$			

$\sin C + \sin D = 2 \sin \frac{C+D}{2} \cos \frac{C-D}{2}$ $\sin C - \sin D = 2 \cos \frac{C+D}{2} \sin \frac{C-D}{2}$ $\cos C + \cos D = 2 \cos \frac{C+D}{2} \cos \frac{C-D}{2}$ $\cos C - \cos D = 2 \sin \frac{C+D}{2} \sin \frac{C-D}{2}$ $\cos 2A = \cos^2 A - \sin^2 A$ $= \cos 2A - 1$ $= 1 - 2 \sin^2 A$ $= 1 + \tan^2 A$ $1 + \cos 2A = 2 \cos^2 A$ $1 - \cos 2A = 2 \sin^2 A$ $\sin 3A = 3 \sin A - 4 \sin^3 A$ $\cos 3A = 4 \cos^3 A - 3 \cos A$ $3 \tan A - \tan^3 A$ $\tan 3A = 1 - 3 \tan^2 A$ $\sin 18^\circ = \frac{\sqrt{5} - 1}{4} = \cos 72^\circ$ $\sin 36^\circ = \frac{\sqrt{10 - 2\sqrt{5}}}{4} = \cos 54^\circ$ $\sin 54^\circ = \frac{\sqrt{5} + 1}{4} = \cos 36^\circ$ $\sin 72^\circ = \frac{\sqrt{10 + 2\sqrt{5}}}{4} = \cos 18^\circ$	$2 \sin A \cos B = \sin(A+B) + \sin(A-B)$ $2 \cos A \sin B = \sin(A+B) - \sin(A-B)$ $2 \cos A \cos B = \cos(A+B) + \cos(A-B)$ $2 \sin A \sin B = \cos(A-B) - \cos(A+B)$ $* \cos(A+B) \cos(A-B) = \cos^2 A - \sin^2 B$ $* \sin(A+B) \sin(A-B) = \sin^2 A - \sin^2 B$ $\sin \theta = 0 \Rightarrow \theta = n\pi$ $\sin \theta = \sin \alpha \Rightarrow \theta = n\pi + (-1)^n \alpha$ $\cos \theta = 0 \Rightarrow \theta = n\pi$ $\cos \theta = \cos \alpha \Rightarrow \theta = 2n\pi + \alpha$ $\tan \theta = 0 \Rightarrow \theta = (2n+1)\frac{\pi}{2}$ $\tan \theta = \tan \alpha \Rightarrow \theta = n\pi + \alpha$
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Accountancy

Chapter 1

- Q1 What do you mean by Accounting?
- Q2 Explain any 6 attributes of Accounting.
- Q3 Explain the functions of Accounting.
- Q4 Write the difference between Book-Keeping and Accounting.
- Q5 Explain how Accounting is helpful to the Management.
- Q6 Explain the qualitative characteristics of Accounting Information.

Chapter 2

- Q1 Explain the term Business Transactions.
- Q2 What do you mean by drawing explain with an example.
- Q3 Define the term liabilities. Explain the types of liabilities with examples.
- Q4 What do you mean by the term Assets . Explain the types of Assets with examples.
- Q5 Define the term Inventory.

Chapter 3

- Q1 What is meant by Accounting Principles.
- Q2 Explain the following Accounting Concepts
 - a)Going Concern Concept b)Accrual Concept c)Consistency Concept
 - d)Business Entity Concept e)Money Measurement Concept f)Revenue Recognition Concept
- Q3 Write the difference between Accounting Concepts and Accounting Conventions.
- Q4 Make an attractive chart on any of the Accounting Concept.

Chapter 4

- Q1 Explain the accounting process in detail.
- Q2 Distinction between Cash Basis of Accounting and Accrual Basis of Accounting.

Chapter 7

- Q1 Explain the meaning and characteristics of double entry system of accounting.
- Q2 What are Personal Accounts. Explain the types of Personal Accounts with two examples for each.
- Q3 What are Real Accounts. Explain the types of Real Accounts with two examples for each.
- Q4 Explain Nominal Accounts with examples.
- Q5 Write the rules of accounting fro all three types of accounts.

Business Studies

PROJECT (MARKS 20)

Any one topic to be selected:

- 1.** Various types of Internal trade
- 2.** Wholesale Market
- 3.** Classification of Industries
- 4.** Auxiliaries to trade

Important points to be taken into consideration:

- a.** Prepare minimum 20 slides (PPT).
- b.** Project to be prepared as per the present exposure .
- c.** PPT must be more consisting of pictures as well as highlighting the gist of the content present.
- d.** Ten marks will be there for the PPT and remaining ten marks will be there for the project prepared in the schools when it will open.

Like 20 Pages scrap book etc.

PART 2 (WORKSHEET)

Q1. Fill in the blanks :

- 1.** Manufacturing industries are known as Secondary industries because _____.
- 2.** _____ is concerned with holding goods in stock for sale in future.
- 3.** Availability of _____ ,including machines and equipment, building and supportive services is an important factor to be considered at the start of the business.
- 4.** _____ risks means chance of loss without any possibility of gain.
- 5.** ABC ltd. is planting trees on the road side . It is trying to achieve _____ objectives of the business.

Q2. Match the following :

(i)	A person who lends his name and goodwill for the benefits of a partnership firm.	a. Particular partnership
(ii)	A person who contributes capital but does not take part in the business of the firm.	b. Partnership deed
(iii)	A document containing terms and conditions of partnership	c. Sleeping partner
(iv)	A partnership setup for a specific project	d. Nominal partner

Case studies:

1. The business assets of an organization amount to Rs 50000 but the debts that remain unpaid are Rs 80,000. What course of action can the creditors take if-
 - a. The organization is a sole proprietorship firm
 - b. The organization is a partnership firm with Anthony and Akbar as partners. Which of the two partners can the creditors approach for repayment of debt? Give reasons.
2. The owner of general store wants to open a branch in a nearby town. Will you advise him to take a partner to run the branch store or employ a manager/assistant? Give reasons for your advice.

Economics

Q1 FILL IN THE BLANKS

1. _____ means the ability of environment to absorb degradation.
2. _____ refers to the phenomenon of reductions in the amount of ozone in the stratosphere.
3. Population explosion, affluent consumption and production have placed a huge stress on the _____.
4. Shifting cultivation, improper crop rotation, forest fires and over grazing cause _____.
5. Solar energy and wind energy are _____ sources of energy.
6. _____ is proneness to fall ill.
7. _____ health care includes identification, prevention and control of diseases.
8. The workers who own and operate an enterprise to earn their livelihood are known as _____.
9. Labour force= _____ + unemployed persons who are willing and available for work.
10. Hired workers may be _____ workers or casual workers.
11. NABARD was set up in _____ as an apex body of agricultural credit.
12. _____ farming is a whole system of farming that restores, maintains and enhances the ecological balance.
13. Human development is based on the idea that _____ and _____ are integral to human well being.
14. _____ capital is separable from its principal.
15. Pradhan Mantri Jan Dhan Yojna was initiated in _____.
16. _____ organisation collects statistics on poverty in India.
17. Introduction of _____ tariff policy by the Britishers led to the decay of Indian handicraft industries.
18. The overall literacy rate during British rule was less than _____.
19. The first census data was collected in _____ during the British rule.
20. The British introduced the railways in India in _____.

Q2. What was the two fold motive behind the systematic de-industrialization affected by the British in pre independence India?

Q3. Explain how was Zamindari system an important cause of agricultural stagnation during colonial period.

Q4. Suggest four strategies to achieve sustainable development in India.

Q5. What is the state of rural infrastructure in India?

Q6. Aarti, a 12 years old girl works as a domestic help for Mrs. Sharma. Mrs Sharma decided to give her Rs. 2000 per month and two square meal. Is her decision justified?

Q7. Why are regular salaried employees more in urban areas than in rural areas?

Q8. Explain the following types of unemployment-

a. Seasonal unemployment b. Industrial unemployment c. Frictional unemployment

Q9. Explain the terms 'green revolution', 'white revolution' and 'golden revolution'.

Q10. Rohit visited his uncle in Solan during summer vacation. He noticed that his uncle supplied plums at the rate of Rs 6 per kg from his orchard. He was surprised to find that plums are usually sold at Rs 35-40 per kg in his city. He realised that the long chain of middlemen leads to high profit margin. What do you suggest to solve this inefficiency?

Q11. What are the main problems of human capital formation in India?

Q12. Bring out the need for on the job training for a person.

Q13. Discuss measures to remove poverty by economic growth and reduction in income inequality.

Computer Science

1. Draw Flowchart to convert temperature from Fahrenheit to Celsius.
2. Draw Flowchart to calculate area of triangle.
3. Flowchart to find Area and Perimeter of Square
4. Flowchart to Swap Two Numbers using Temporary Variable
5. Flowchart to find the smallest of two numbers
6. Flowchart to find Roots of Quadratic Equations $AX^2+BX+C=0$
7. Draw flowchart to check the eligibility for voting a person.
8. Draw flowchart to check whether a number is odd or even.
9. Draw flowchart to enter day number and display day name.(eg. For 1 display Monday)
10. Draw flowchart to check whether a number is positive, negative, or zero.
11. Draw flowchart to print the positive difference of two numbers.
12. Draw flowchart to create a simple calculator performing only four basic operations
13. Draw flowchart to print the first five natural numbers.
14. Draw flowchart to find the factorial of the entered number.
15. Draw flowchart to check entered number is prime or not

Information Practices

Q1. Define the followings:

Database	DBMS	RDBMS	Redundancy	Inconstancy
Table	Record	Field	Cardinality	Degree
Primary Key	Alternate Key	Candidate Key	Foreign Key	MySQL
DDL	DML	NULL	Literal	Identifier

Q2. Differentiate the followings:

- a. DDL and DML
- b. Redundancy and Inconsistency
- c. DBMS and RDBMS
- d. DROP and ALTER

Q3. Which command is used for followings? Also write the category To remove a database.

- a. To add a column in a table.
- b. To change the value of existing table.
- c. To add a new record.
- d. Removing all records of a table
- e. Renaming a column

Q4. Practical Questions in MySQL based on one table

TABLE:ITEM

ItemCode	ItemName	ItemPrice	Quantity	Dateofmanufacture	Dateofexpiry	Damage_Qty
1001	LIRIL	27	100	12-DEC-2008	12-DEC-2010	24
1002	JO	22	150	15-JAN-2009	15-JAN-2011	12
1003	LUX	24	135	18-NOV-2008	18-NOV-2011	0
1004	PEARS	32	123	20-MAR-2009	20-MAR-2010	6
1005	CINTHOL	18	67	20-MAR-2008	20-MAR-2010	0
1006	SANTOOR	14	200	18-JUL-2009	18-JUL-2012	6
1007	DETTOL	20	89	10-AUG-2009	10-AUG-2012	3

Answer the following questions based on above table.

1. Write the SQL command to create above table with the following constraints.

Itemcode PrimaryKey

ItemPrice >10

2. Write the SQL command to add the first record of this table.
3. Write the SQL command to delete those records where items are expired.
4. Write the SQL command to display all those records where itemprice is between 100 to 160
5. Write the SQL command to display those records where expiry period is more than or equal to two years.
6. Write the SQL command to display those records, which has been manufactured in the year 2008.
7. Write the SQL command to change the damage_qty to 0 for itemcode 1001.
8. Write the SQL command to display those records where item price is more than 25 and damage_qty is more than zero.
9. Write the SQL command to display those records where itemname starts with letter “L”.
10. What is the output of the following SQL command?

```
SELECT ITEMNAME, ITEMPRICE FROM ITEM WHERE QUANTITY>100 ORDER BY  
ITEMNAME DESC.
```

11. Write the SQL query to display those records where damaged quantity is less than 10 in the descending order of damage_qty and then quantity.
12. Write the SQL query to display maximum, minimum, average and total damaged quantity.
13. Write the SQL query to display the count of all damaged items where damaged items are more than 10.
14. Write the SQL query to display the item_name having maximum damaged quantity.
15. Write the SQL query to display those records which has been manufactured in between 01-November-2008 to 30-June-2009.

Applied Arts

For applied Arts Home-Work open given link and do accordingly:

1. Linear Drawings : <https://drive.google.com/open?id=1s1rx53cDaT0u7n-fC3hhdTTM-RrlucU->

2. Still Life and Shading Techniques :

<https://drive.google.com/file/d/1QqRZVzH01gCjXlzx7hrfIs0j13BeV7hB/view?usp=sharing>