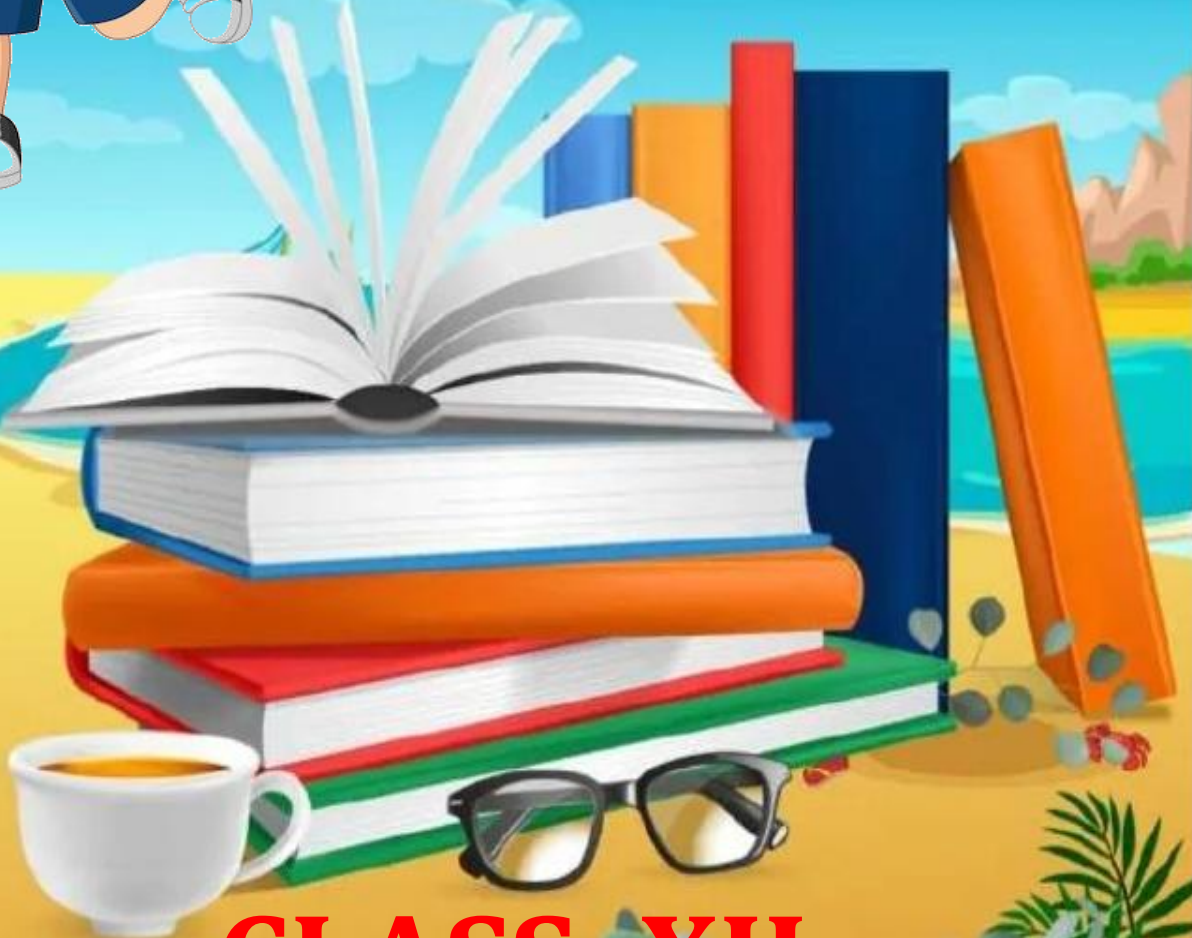# HERITAGE CHILDREN ACADEMY

(Senior Secondary School Affiliated to CBSE, New Delhi)

NH-24, Jalif Nagla, Teh- Milak, Distt. Rampur (U.P) 244701

SESSION : 2025-26

Summer Holiday Homework

CLASS: XII

www.heritagemilak.com

Holidays are the most anticipated time of the year for everyone. I hope you enjoy it a lot next to your family and when you come back you will tell us your best experiences. Beat the heat by drinking lemonade, coconut water and eating Fresh fruits. We wish you a very happy and a fruitful family time during this summer vacation. The school is closed for summer vacation from 1st **June to 24th June, 2025 for Class XII.**

GENERAL INSTRUCTIONS FOR ASSIGNMENT-

- It is summer vacation time again, a time to relax as well as to get fruitfully occupied in various scholastic and co-scholastic areas. Keeping this in mind, we have designed interesting Projects/Assignments to be completed during the summer vacation. This would encourage in-depth learning, strengthen concepts and prepare ground for improved academic output.

- It will not only enable you to recapitulate what was taught but will also help you to connect yourselves to the various learning processes. These projects will be assessed as Subject Enrichment Activity for Term I.

- Dear parents, kindly motivate and lend support to your children and ensure that they complete the given work well in time and to the best of their ability. Your encouragement can actually make a huge difference to the ultimate learning outcome of these projects.

- During the break Inculcate healthy eating habits in your children, give them fruits and balanced diet with vitamin C and ask them to get up early in the morning.

Do breathing exercise/Yoga daily.

For queries related to fee, new admission, transfer certificate documentation you may contact the mentioned WhatsApp number between 10 AM to 2 PM. (Dipanshu Sharma:- 9759431635)

ENGLISH

RUBRICS

- The project consists of 10 MARKS.
- Out of which, 5 MARKS will be allotted for the PROJECT FILE,
- And remaining 5 MARKS for the VIVA based on the file.
- The viva will be conducted by the EXTERNAL EXAMINER.

CONTENT OF THE PROJECT FILE:

The project file may include the following:

- Cover page, with the title of the project, school details and details of the student (sample will be sent)

Certificate of Completion under the guidance of the teacher (sample will be sent)

Objectives of the topic

- Action Plan for the completion of assigned tasks (steps involved in doing the project)
- The 800-1000 words essay/report
- Student reflections (what new learning experience/outcome you have achieved
- after completing the project)
- If possible, photographs that capture positive learning experience of the students
- (collages/pics from various online sources)
- List of Resources/Bibliography (Last page of the project file)

INSTRUCTIONS:

- Refer to the links of the videos attached with each topic (You can also select different videos available on YouTube, relevant to your topic)
- Listen to these podcasts, documentaries, interviews etc. on the given topics
- Do a thorough research on the topic assigned
- Prepare a report/essay in about 800-1000 words describing the topic/issue/giving your own opinion/suggestions/measures/viewpoints/its impact on people/your
- learning experience
- You can also state the name of various speakers/people (in the given documentaries/video links), quote them and express their viewpoints
- The project should be neat, legible, with an emphasis on quality of content, accuracy of information, creative expression, proper sequencing and should be
- relevant as per your assigned topic

PROJECT TO BE TYPED ON A4 SHEET.

- No repetition or copying of project work would be accepted.
- Please don't share your work with anyone. If the External examiner points out any repetition or copying of the project, the consequences would be severe.
- No marks will be awarded for a casual approach of completing the project
- There are 15 topics. Topics are distributed Roll-No Wise
- Roll no 16 will get topic no 1 and so on…

Given below is a list of some suggestive topics for the project.

1. MENTAL HEALTH DURING COVID TIMES:

Links for reference:

https://www.youtube.com/watch?v=xzNMABRELPg

https://www.youtube.com/watch?v=CVvGvoMRUhk

https://www.youtube.com/watch?v=UE_H9QhGktE

2. BIOTERRORISM (BIOWAR & BIO WEAPONS):

Links for reference:

https://youtu.be/Faftnz8cg7E

https://youtu.be/b6NI97v2buc

https://youtu.be/6Af6b_wyiwI

3. DRUG ABUSE, DRUG TRAFFICKING & ADDICTION:

Links for reference:

https://youtu.be/pzhD2MyeIbY

https://youtu.be/b6Dte96WdqM

https://youtu.be/lwP9H9qTuUY

4. CYBER CRIME AND SECURITY:

Links for reference:

https://youtu.be/AVBlvtEthtc

https://youtu.be/DpjoZGOONiQ

https://youtu.be/1A3sQO_bQ_E

5. ONLINE AND OFFLINE TEACHING DURING COVID: (Due to COVID, education industry has seen many new startups, discuss how this has affected many in positive and negative way)

Links for reference:

https://youtu.be/8FKR35OidyU

https://youtu.be/PVM3_0_nKSI

https://youtu.be/7XyvN5dPTxE

6. PATRIARCHY AND FEMALE SUBJUGATION:

Links for reference:

https://youtu.be/R0LXAC2PXuU

https://youtu.be/MRfDzznfEOU

https://youtu.be/H-9fTS5cAiA

7. NATIONWIDE LOCKDOWN HAS LED A DENT ON ECONOMY (Discuss in detail)

Links for reference:

https://youtu.be/NbvrG1FR1X0

https://youtu.be/9ndmW5RLhPg

https://youtu.be/JmGfqusjxeo

8. MOB LYNCHING:

Links for reference:

https://dai.ly/x7gq8sz

https://youtu.be/Jox_CYyitGU

https://economictimes.indiatimes.com/news/politics-and-nation/government-sets-up4-member-committee-to-suggest-measures-to-deal-with-moblynching/videoshow/65107450.cms

9. GENERATION GAP:
Links for reference:
  https://youtu.be/lEqX4QhMj3k
  https://youtu.be/uEd6dhOegn4
  https://youtu.be/p656FvLHupY

10. SOCIAL NETWORKING PLATFORMS: IS SOCIAL MEDIA AN EFEFFECTIVE TOOL FOR QUICK AND CONVENIENT COMMUNICATION, OR IS IT JUST A SOPHISTICATED MEANS FOR STALKING PEOPLE?
Links for reference:
  https://youtu.be/ABOgsV2XTEk
  https://www.intelligencesquaredus.org/?jwsource=cl
  https://www.ted.com/talks/cal_newport_why_you_should_quit_social_media

11. DO YOU THINK THE SIGHTINGS OF UFOS ARE TRUSTWORTHY? DO ALIENS REALLY EXIST?
Links for reference:
  https://youtu.be/ZBtMbBPzqHY
  https://youtu.be/30r45P1JFys
  https://youtu.be/EVBCLAaflaw

12. SHOULD ANIMAL TESTING BE BANNED?
Links for reference:
  https://youtu.be/G393z8s8nFY
  https://youtu.be/FfRQDgu6pX4
  https://youtu.be/Mo25wUKNySg

13. CLIMATE CHANGE IS THE GREATEST THREAT FACING HUMANITY TODAY:
Links for reference:
  https://youtu.be/vy3gMVGwjuc
  https://youtu.be/cl4Uv9_7KJE
  https://youtu.be/VibolJvWqiw

14. THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE WILL HELP HUMANITY:
Links for reference:
  https://youtu.be/wTbrk0suwbg
  https://youtu.be/-orTIDWqBN0
  https://youtu.be/ZJixNvx9BAc

<center>**HINDI**</center>

"हिंदी कविता में प्रकृति चित्रण" पाठ 'उषा/बगुलों के पंख के आधार पर एक प्रोजेक्ट फाइल तैयार करें !

RUBRICS

   Creativity   : 4M
   Content   : 4M
   Time duration : 2M

MATHS

Q1 Show that the relation R on R defined as R = {(a, b) : (a ≤ b)}, is reflexive and transitive but not symmetric. (Delhi 2019)

Q2 Prove that the function, f : N → N is defined by f(x) = x² + x + 1 is one-one but not onto. (Delhi 2019)

Q3 If R is a relation defined on the set of natural numbers N as follows:
R = {(x, y) : x ∈ N, y ∈ N and 2x + y = 24}, then find the domain and range of the relation R . Also, find whether R is an equivalence relation or not. (Delhi 2014C)

Q4 Write the principal value of
tan-1 (√3) – cot-1 (- √3). (All India 2019,13)

Q5 If tan-1x + tan-1 y = π/4; xy < 1, then write the value of x + y + xy. (All India 2014)

Q6 Write the value of
cos-1(−1/2) + 2 sin-1(1/2). (Foreign 2014)

Q7 Using the principal values, find the value of cos-1(cos13π/6). (All India 2010C).

Q8 Write the number of all possible matrices of order 2 × 2 with each entry 1, 2 or 3. (All India 2016)

Q9 Express the following Matrix ad the sum of a symmetric and skew symmetric matrix and verify the result:
$\begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$

Q10 The sum of three numbers is 6 if we multiply third number by 3 and second number to it be get 11 now adding first and third number be get double of the second number. Represent it algebraically and find the numbers using Matrix method.

Q11 If A= $\begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$
Then find the value of
A³+3A²-4A ?

Q12 Determine the value of 'k' for which the following function is continuous at x = 3: (All India 2017)

$$f(x) = \begin{cases} \dfrac{(x+3)^2 - 36}{x-3} & , x \neq 3 \\ k & , x = 3 \end{cases}$$

Q13 Find the values of p and q for which

$$f(x) = \begin{cases} \dfrac{1 - \sin^3 x}{3\cos^2 x}, & \text{if } x < \dfrac{\pi}{2} \\ p, & \text{if } x = \dfrac{\pi}{2} \\ \dfrac{q(1 - \sin x)}{(\pi - 2x)^2}, & \text{if } x > \dfrac{\pi}{2} \end{cases}$$

is continuous at x = π/2. (Delhi 2016)

Q14   If $x = a \sec^3 \theta$ and $y = a \tan^3 \theta$, find d^2y/dx^2 at $\theta = \pi/3$ (CBSE 2018C)

Q15   If $x \cos(a + y) = \cos y$, then prove that $dy/dx = \cos^2(a+y)/\sin a$. Hence, show that $\sin \alpha$ $d^2y dx^2 + \sin 2 (\alpha + y) dy dx = 0$. (All India 2015).

RUBRICS

Creativity	:	4M
Content	:	4M
Time duration	:	2M

PHYSICS

Make a Project file from the following topics.

Topics :

- Electric charges and electric field
- Capacitor
- Dielectric materials
- Electric flux and gauss theorem
- Wheat stone bridge
- Moving coil galvanometer
- (Magnetic materials) paramagnetic diamagnetic and ferromagnetic materials.
- Electromagnetic induction
- Self induction and mutual induction.
- AC generator
- Transformer
- PN Junction diode
- Energy band theory in conductor semiconductor and insulator.
- Electromagnetic spectrum
- Microscope and telescope.
- Wavefront
- Diffraction of light
- Interference of light and young double slit experiment.
- Dual nature of radiation and matter
- Alpha particle scattering experiment Rutherford model of atom
- Hydrogen spectrum
- Experimental study of photoelectric effect
- Reflection of light and refraction of light.
- AC circuits (LCR)

RUBRICS

Creativity	:	4M
Content	:	4M
Time duration	:	2M

CHEMISTRY

Make a Chemistry project atleast 12 to 15 pages. Topics are given below.

Topics

1. Colligative Properties	2. Electrochemical Cell
3. Corrosion	4. d- Block Elements
5. Werner's Theory	
6. Valence Bond Theory of Coordination Compounds	
7. Crystal Field Theory	8. Haloalkanes
9. Haloarenes	10. Alcohols
11. Phenols	12. Ethers
13. Aldehydes and Ketones	14. Carboxylic Acids
15. Carbohydrates	16. Proteins
17. Vitamins	18. Naming Reactions of Organic Compounds.

RUBRICS

Creativity	:	4M
Content	:	4M
Time duration	:	2M

BIOLOGY

● Make a Biology project atleast 12 to 15 pages. Topics are given below.

Topics

1. cancer	2. AIDS
3. Pollination	4. STDs
5. DNA versus RNA	6. Biodiversity
7. Biodiversity conservation	8. Gene therapy
9. Assisted reproductive technology	10. Genetic codes
11. Mendel 's laws	12. Transcripton and translation
13. Isolation of DNA	14. Genetic engineering
15. Semiconservative model of DNA	16. Test tube baby programmes

RUBRICS

Creativity	:	4M
Content	:	4M
Time duration	:	2M

ACCOUNTANCY

Rubrics:-

Practical Work 10 marks

Practical work will include:

Practical File 06 Marks

Viva Voce 04 Marks

One specific project based on financial statement analysis of a company covering any two aspects from the following:

1. Comparative and common size financial statements
2. Accounting Ratios
3. Segment Reports
4. Cash Flow Statements

The comprehensive project may contain simple GST calculations.

Project File to record work related to the problem attempted by you in the following format:

1. First page of the file should describe the title of work, identity of student, school, and the teacher concerned.

2. Index to indicate columns for title of work, page no., date, teacher's remarks and signature.

3. The format for Project Work will be:

- Statement of the problem Name of the Project
- Objectives
- Period of Study
- Source
- Material
- Tools of Analysis used
- Processing and Tabulation of data
- Diagrammatic/ graphic presentation- pie-diagrammes, bar diagrams and graphs.
- Derivations, Interpretation and Conclusion.
- Assumptions (if any)

Project File should be neatly handwritten and presentable with page numbers. Each step of the solution needs to be highlighted. Conclusions drawn should be placed in boxes at the end.One specific project based on financial statement analysis of a company covering any two aspects from the following:

1. Comparative and common size financial statements
2. Accounting Ratios
3. Segment Reports
4. Cash Flow Statements

RUBRICS

Creativity	:	4M
Content	:	4M
Time duration	:	2M
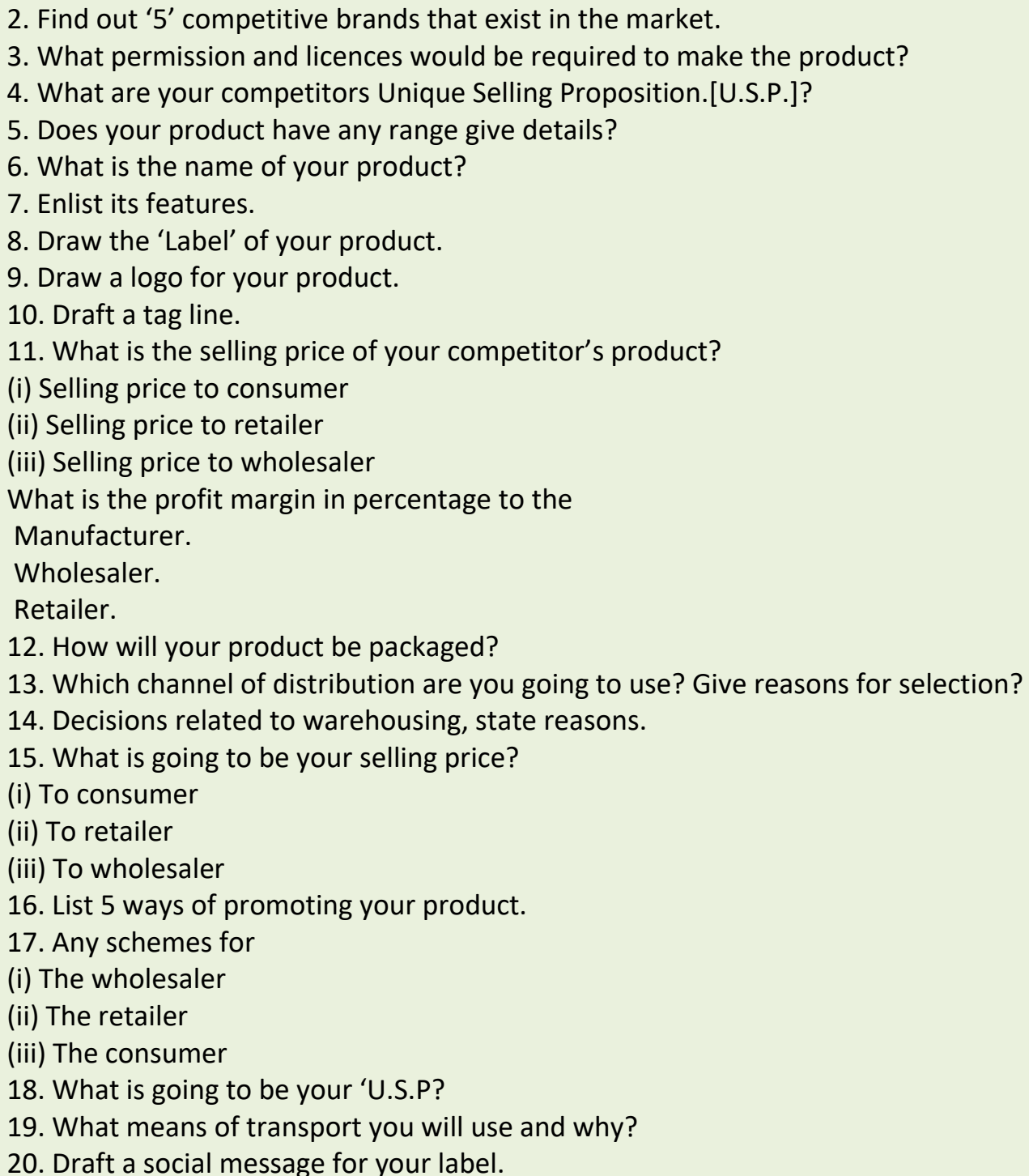
BUSINESS STUDIES

Project: Marketing

1. Adhesives	2. Air conditioners
3. Baby diapers	4. Bathing Soap
5. Bathroom cleaner	6. Bike
7. Blanket	8. Body Spray
9. Bread	10. Breakfast cereal
11. Butter	12. Camera
13. Car	14. Cheese spreads
15. Chocolate	16. Coffee
17. Cosmetology product	18. Crayons
19. Crockery	20. Cutlery
21. Cycle	22. DTH
23. Eraser	24. e-wash
25. Fairness cream	26. Fans
27. Fruit candy	28. Furniture
29. Hair Dye	30. Hair Oil
31. Infant dress	32. Inverter
33. Jams	34. Jeans
35. Jewellery	36. Kurti
37. Ladies bag	38. Ladies footwear
39. Learning Toys	40. Lipstick
41. Microwave oven	42. Mixers
43. Mobile	44. Moisturizer
45. Music player	46. Nail polish
47. Newspaper	48. Noodles
49. Pen	50. Pen drive
51. Pencil	52. Pickles
53. Razor	54. Ready Soups
55. Refrigerator	56. RO system
57. Roasted snacks	58. Salt
59. Sarees	60. Sauces/ Ketchup
61. Shampoo	62. Shaving cream
63. Shoe polish	64. Shoes
65. Squashes	66. Suitcase/ airbag
67. Sunglasses	68. Tea
69. Tiffin Wallah	70. Toothpaste
71. Wallet	72. Washing detergent
73. Washing machine	74. Washing powder
75. Water bottle	76. Water storage tank
77. Wipes	

students are required to make a project on the identified product/service keeping in mind the following:

1. Why have they selected this product/service?

2. Find out '5' competitive brands that exist in the market.

3. What permission and licences would be required to make the product?

4. What are your competitors Unique Selling Proposition.[U.S.P.]?

5. Does your product have any range give details?

6. What is the name of your product?

7. Enlist its features.

8. Draw the 'Label' of your product.

9. Draw a logo for your product.

10. Draft a tag line.

11. What is the selling price of your competitor's product?

(i) Selling price to consumer

(ii) Selling price to retailer

(iii) Selling price to wholesaler

What is the profit margin in percentage to the

 Manufacturer.

 Wholesaler.

 Retailer.

12. How will your product be packaged?

13. Which channel of distribution are you going to use? Give reasons for selection?

14. Decisions related to warehousing, state reasons.

15. What is going to be your selling price?

(i) To consumer

(ii) To retailer

(iii) To wholesaler

16. List 5 ways of promoting your product.

17. Any schemes for

(i) The wholesaler

(ii) The retailer

(iii) The consumer

18. What is going to be your 'U.S.P?

19. What means of transport you will use and why?

20. Draft a social message for your label.

21. What cost effective techniques will you follow for your product.

22. What cost effective techniques will you follow for your promotion plan.

At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.
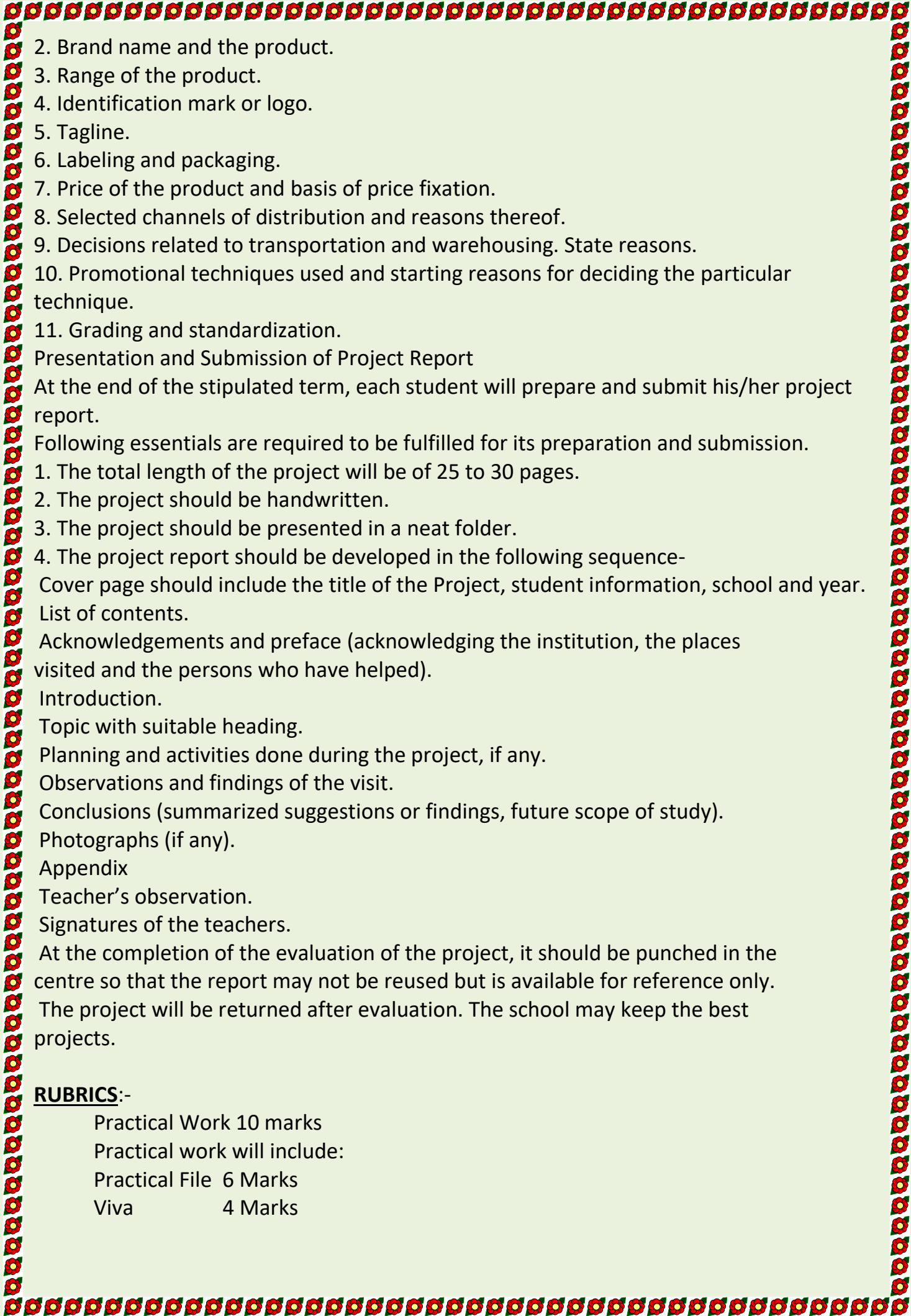
 Product

 Place

 Price

 Promotion

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involve there in.

2. Brand name and the product.

3. Range of the product.

4. Identification mark or logo.

5. Tagline.

6. Labeling and packaging.

7. Price of the product and basis of price fixation.

8. Selected channels of distribution and reasons thereof.

9. Decisions related to transportation and warehousing. State reasons.

10. Promotional techniques used and starting reasons for deciding the particular technique.

11. Grading and standardization.

Presentation and Submission of Project Report

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.

2. The project should be handwritten.

3. The project should be presented in a neat folder.

4. The project report should be developed in the following sequence-

 Cover page should include the title of the Project, student information, school and year.

 List of contents.

 Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).

 Introduction.

 Topic with suitable heading.

 Planning and activities done during the project, if any.

 Observations and findings of the visit.

 Conclusions (summarized suggestions or findings, future scope of study).

 Photographs (if any).

 Appendix

 Teacher's observation.

 Signatures of the teachers.

 At the completion of the evaluation of the project, it should be punched in the centre so that the report may not be reused but is available for reference only.

 The project will be returned after evaluation. The school may keep the best projects.

RUBRICS:-

    Practical Work 10 marks
    Practical work will include:
    Practical File 6 Marks
    Viva   4 Marks

ECONOMCIS

Develop a hand written project report on the topics given below .

• Micro and Small Scale Industries	• Food Supply Channel in India
• Contemporary Employment situationin India	• Disinvestment policy of the government
•Goods and Service tax Act and its Impacton 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	• Minimum Wage Rate – Approach and Application
• Waste Management in India – Need of the hour	• Rain Water Harvesting – A solution to water crisis
• Digital India- Step towards the future	• Silk Route- Revival of the past
• Vertical Farming – An alternate way	• Organic Farming – Back to the Nature
• Make in India – The way ahead	• e-Rupee (e) *
• Rise of Concrete Jungle- Trend Analysis	• Comparative Study of Economies (Maximum three economies)
• Aatmanirbhar Bharat	• G-20: Inclusive and Action Oriented
• Sri Lanka's Economic Crisis	• Cashless Economy
• Environmental Crisis	
• New Education Policy (NEP) 2020: A Promise for a New Education System	
• Amrit Kaal: Empowered and Inclusive Economy	
• Any other newspaper article and its evaluation on basis of economic principles	

RUBRICS
1. Relevance of the topic (1M)
2. Knowledge Content/Research Work (3M)
3. Presentation Technique (2M)
4. Viva-Voce (4M)

Suggestive List of Projects is also given you can select any one topic :

Note: You can also choose the topic from the whole content of both the books or any other topic related to the Economy of the country.

PHYSICAL EDUCATION

Dear Students, Please complete the given following task in your lab manual.
- ➢ Physical fitness test : 6 M
- ➢ Proficiency in games and sports (skill of any one game of choice from the Lab Manual : 7M
- ➢ Yogic practice : 7 M
- ➢ Record file : 5 M
- ➢ Games & sports/ yoga : 5 M

COMPUTER SCIENCE

Q1) Read a text file line by line and display each word separated by a #.

Q2) Read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file.

Q3) Remove all the lines that contain the character 'a' in a file and write it to another file.

Q4) Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display the appropriate message.

Q5) Create a binary file with roll number, name and marks. Input a roll number and update the marks.

Q6) Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).

Q7) Write a Python program to implement a stack using list.

Q8) Create a CSV file by entering user-id and password, read and search the password for a given userid.

RUBRICS

Programs - 6 Marks

Logic - 2 Marks

Quality of Code - 2 Marks

PAINTING

1. Complete the drawing file

2. Practice the paintings on the topics given below

     Still life (Pencil Shade)

     Landscape (Pencil sade)

     Composition (Coloured)

LEARNING WORK

  *Learn Rajasthani school

  *Learn Deccan School

RUBRICS

10 marks for painting

10 marks for learning notes

"YOUR FUTURE IS CREATED BY WHAT YOU DO TODAY, NOT TOMORROW."

DP