

DAV PUBLIC SCHOOL, SRESHTHA VIHAR, DELHI-110092
HOLIDAYS HOMEWORK ARTIFICIAL INTELLIGENCE 2020-21

Class-IX

1. Digital Poster: How Smart should be your city?

Design a poster listing different smart initiatives that you would like to see in your city

Instructions : (i) Include 5 innovative initiatives that are possible using current technology
(ii) Initiatives must not be currently used by your city
(iii) Poster is to be submitted in pdf/jpeg format

Software to be used : Canva/Adobe Spark Post any other relevant Software

2. Digital Animation: Sustainable Development Goals

Create a video/ animation/game explaining 17 SDGs

Instructions : (i) The name of the goal must be clearly stated
(ii) Include the icon of each SDG
(iii) Submission must be in video format

Software to be used : Scratch/Adobe Spark Video/Minecraft/Kodu/any other relevant Software

3. Digital Presentation: AI (Artificial Intelligence) in Education

Create a Presentation on how AI is enabling Education

Instructions : (i) Use different Multimedia Content
(ii) No. of Cards to be used is 10
(iii) Link of Sway is to be submitted

Software to be used : Microsoft Sway using o365 IDs @davsreshtha.com or any other Presentation Software

(Link for submission for all the tasks will be shared)

ENGLISH HOLIDAY HOMEWORK

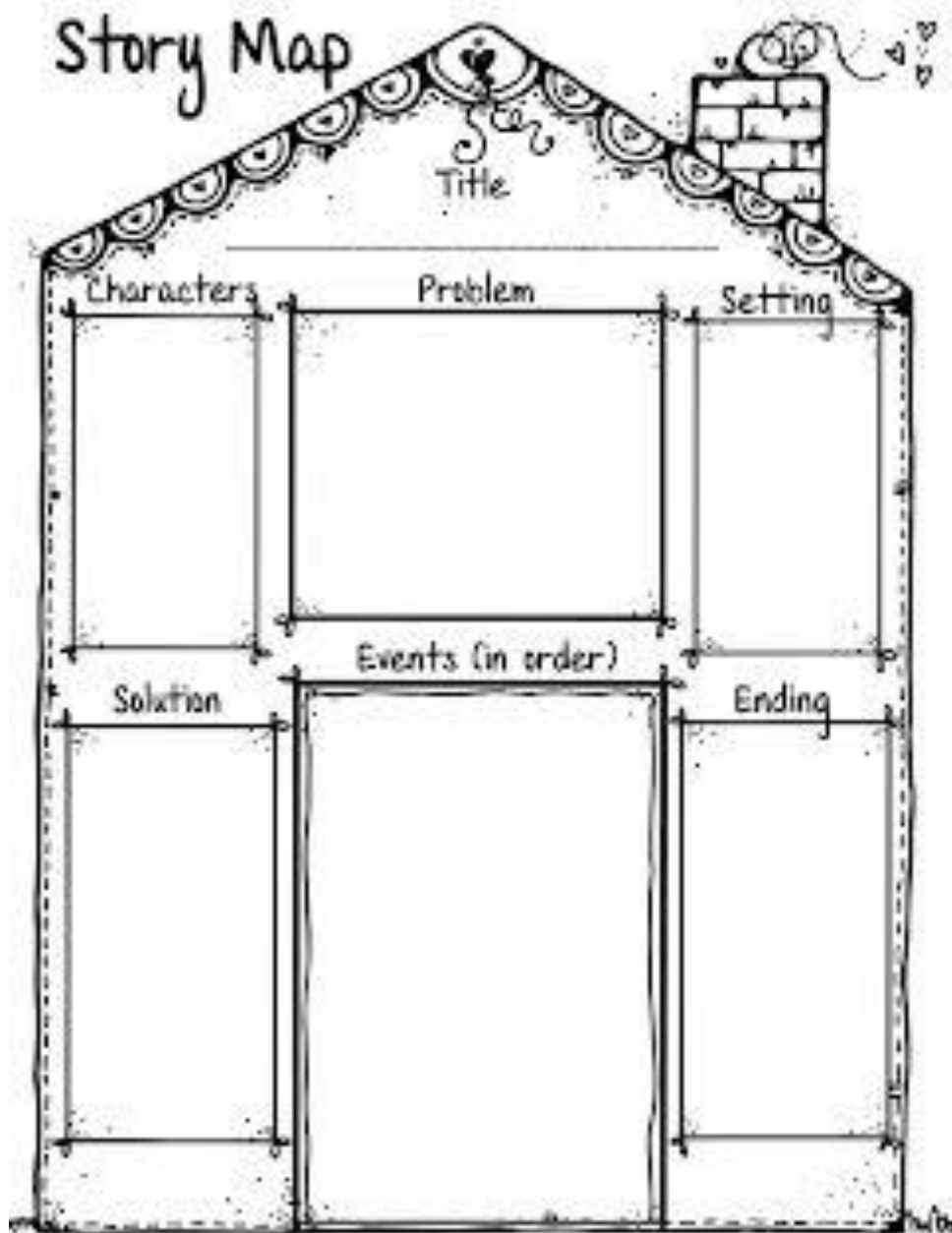
CLASS IX

NOTE: ALL QUESTIONS MUST BE DONE ON A4 SIZE RULED SHEETS.

1. Prepare a Mini Dictionary of 30 difficult words from the text 'BEEHIVE' in the following format.

word	definition	picture
sentence		
synonym	antonym	
part of speech		

2. Read the chapter 'The Sound of Music' and write about the lives of Evelyn Glennie and Ustad Bismillah Khan in the following manner.



3. GET TO KNOW A FAMILY MEMBER BETTER.

Sometimes in our busy schedule we forget to spend some quality time with our near and dear ones. Here's your chance to get closer to one of your family members. (Close or Distant)

Paste the photograph of your family member you want to interview and mention how you are related. Ask them the following questions and write their response(s).

- i) Who had the biggest impact on you while growing up?
- ii) What are your hobbies?
- iii) What are/were your biggest goals?
- iv) How do you like to spend your weekend?
- v) What was your favourite TV Show while growing up? Why did you like it?

- vi) Tell me about a challenge you had to overcome and how you overcame it?
- vii) What are some of the items on your bucket list?

4. SHORT STORY WRITING

Write a story in about 150-200 words with the following beginning and give a suitable title to it.

It was 6'o clock in the evening and there was a lot of traffic on the road. Mohan was driving his auto when suddenly two teenagers on bike overtook his car.....

5. Frame 5 MCQ's each from the following chapters. Each question should have four options.

- i) The Little Girl (Beehive)
- ii) A Truly Beautiful Mind (Beehive)
- iii) Iswaran the Storyteller (Moments)
- iv) In the Kingdom of Fools (Moments)

6. To say that life has changed in this pandemic is an understatement. We are living in unimaginable times, coping with making sense of things. It is famously said 'When life throws lemons at you, make a lemonade.' Keeping the spirit of optimism in our hearts let's try to make most of our times at home. Learn something new, enter an uncharted territory (METAPHORICALLY) , do something we thought we were hitherto incapable of doing. Record the highlights of your summer break in the following way.

HIGHLIGHTS OF MY BREAK



SOMETHING FUN	SOMETHING NEW	SOMETHING SURPRISING

SOMETHING SPECIAL	SOMETHING CRAZY	SOMETHING KIND
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Holidays homework of IX th class

- 1) Do all written expressions of Chapter 1,2,3 in your french register
- 2) Preparez une publicite d'un endroit sur une feuille de A4 et gardez dans votre serviette.
- 3) Preparez un video en chantant une chanson (2 strophe)
- 4) Preparez un video en expliquant les articles (define, indefini, contracte, partitif)

डी. ए. वी. पब्लिक स्कूल, श्रेष्ठ-विहार, दिल्ली 92

ग्रीष्मावकाश-कार्य-----20-21

कक्षा---नवमी

विषय--हिंदी

1. लेखक यशपाल की भांति यदि आपको को भी, इस कोरोना-काल के दौर में कोई स्त्री अथवा पुरुष (मजदूर) सड़क पर दुखी मिलता है तो आपकी क्या प्रतिक्रिया होगी। क्या ऐसी अवस्था में आपकी पोशाकें अथवा सामाजिक-आर्थिक स्तर आड़े आएगा? यदि हां तो क्यों और यदि नहीं तो उसकी मदद करते हुए आप कौन-कौन सी सावधानियों का ध्यान रखेंगे?
2. एवरेस्ट की यात्रा करने हेतु जिस तरह की आवश्यक तैयारी एवं जानकारी की आवश्यकता पड़ती है, उन सभी तथ्यों की जानकारियों को देते हुए एक पी. पी. टी. तैयार कीजिए।
3. भक्तिकालीन सगुण एवं निर्गुण धारा के संत-कवियों एवं कवयित्री के विषय में जानकारी एकत्रित करके चित्र सहित एक साहित्यिक-पत्रिका तैयार कीजिए।
4. महादेवी वर्मा द्वारा रचित संस्मरणात्मक-रेखाचित्र 'गौरा' की कथा पढ़िए और उसका नाट्य-रूपान्तर करके लिखिए।
5. पता कीजिए कि कौन-कौन से सांप विषैले होते हैं? उनके चित्र एकत्र कीजिए और उसे स्क्रेप-बुक में लगाइए। 'दुख का अधिकार' पाठ के आधार पर बताइए कि यदि भगवाना की मां, उसे ओझा की बजाय डाक्टर के पास ले जाती तो क्या उसका बेटा भगवाना बच जाता। अपने विचार लिखिए।

MATHEMATICS
HOLIDAYS HOMEWORK
CLASS-IX

1. Which of the following can be a term of a polynomial ?
(a) $2x$ (b) $\frac{3}{x}$ (c) \sqrt{x} (d) $x^{\sqrt{x}}$
2. The coefficient of x in the expansion of $(x+3)^3$ is
(a) 9 (b) 18 (c) 27 (d) None of above
3. The points (other than the origin) for which abscissa is equal to the ordinate will lie in
(a) I quadrant only (b) I and II quadrants
(c) I and III quadrants (d) II and IV quadrants
4. If the coordinates of two points are P (-2,3) and Q (-3,5) then
(abscissa of P - bscissa of Q) is
(a) 1 (b) -1 (c) -2 (d) -5
5. The equation $y + 3 = 0$ represents a line
(a) parallel to the Y-axis (b) parallel to the X-axis
(c) passing through origin (d) passing through the point (-3, 0)
6. In meteorological department, temperature is measured as
(a) a natural number (b) whole number
(c) rational number (d) irrational numbers

7. What is the degree of non zero constant polynomial?

8. Check whether the polynomial

$$p(x) = 9x^3 - 3x^2 + x - 5 \text{ is a multiple of } (x - \frac{2}{3}).$$

9. Without finding cubes, factorise :

$$(x - y)^3 + (y - z)^3 + (z - x)^3$$

10. Find x , if $(\frac{2}{3})^x \cdot (\frac{3}{2})^{2x} = \frac{16}{81}$

OR

$$\text{Solve for } x : 5^{x-1} = 125^{3x-1}$$

11. Express $\sqrt[3]{2.456}$ in the form of p/q where p and q are integers and $q \neq$ zero.

12. Draw the graph of a linear equation $2x + y = 6$. At what points, the graph cut the X- axis and Y- axis.

13. Factorise : $2x^3 - 5x^2 - 19x + 42$

14.. If $x = \sqrt{3} + \sqrt{2}$, then find the value of $x + \frac{1}{x}$, and state whether it is rational or irrational.

OR

Rationalise the denominator of $x = 9 + 4\sqrt{5}$, find the value of $\sqrt{x} - \frac{1}{\sqrt{x}}$

15. Plot the points (1,1) ,(2, -2) and (-1,-2) and check whether they are collinear or not. Determine the area of the figure obtained.

16. Degree of the zero polynomial is

- a) 0 b) 1 c) Not defined d) Any natural no.

17. Find the value of k so that when $x^2 + 8x + k$ is divided by $(x-2)$, the remainder is 3.

18. When the polynomials $x^3 + 2x^2 - 5ax - 7$ and $x^3 + ax^2 - 12x + 6$ are divided by $(x+1)$ and $(x-2)$ respectively,leaves remainder A and B and $2A + B = 6$, find the value of a .

19. Without actually calculating the cubes, find the value of : $(-11)^3 + (7)^3 + (4)^3$.

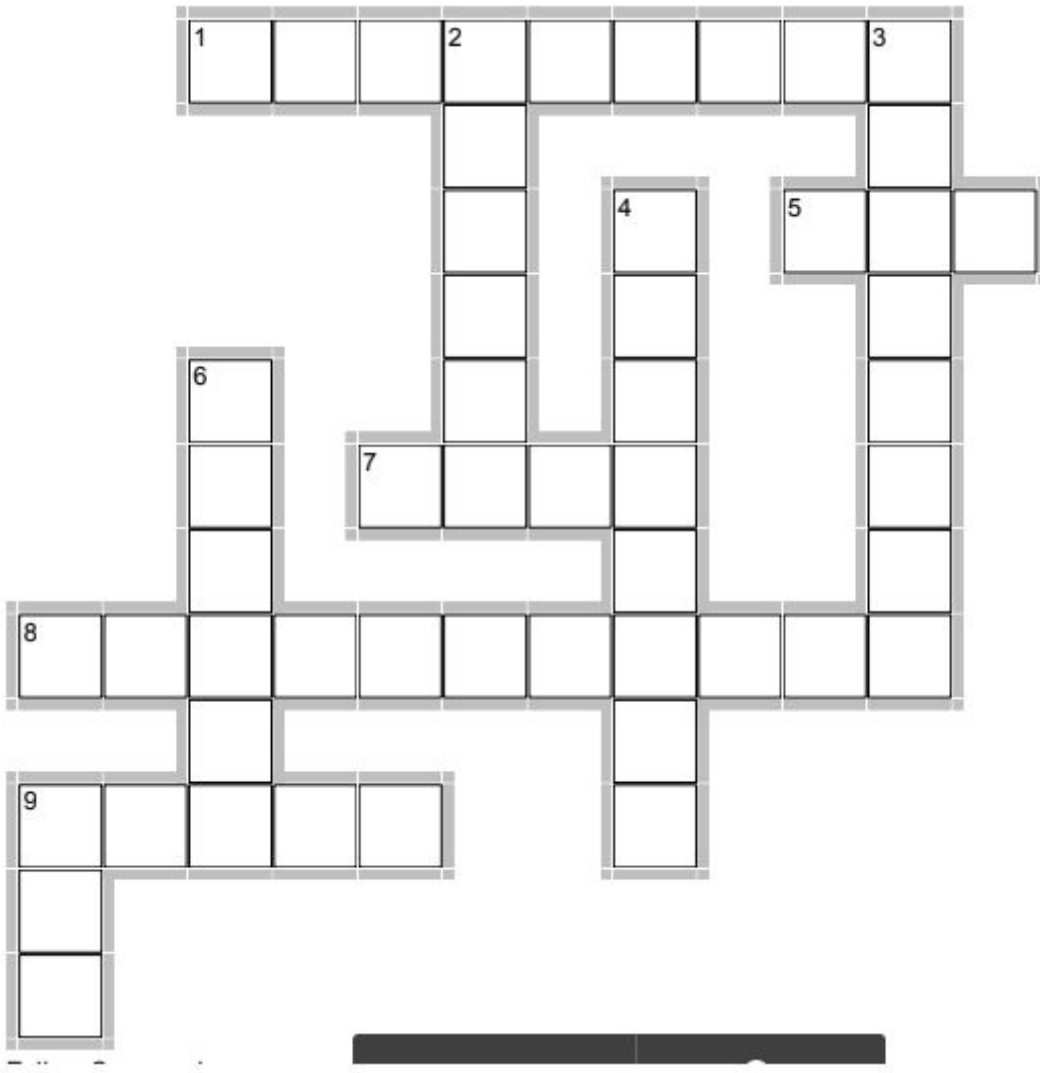
20. Crossword

Across

1. polynomial of degree two
5. degree of $7m-7$
7. degree of non zero constant polynomial
8. 4 in $4x+3$ 9. x and 8 in $x-8$

Down

2. highest power of variable
3. 5 is polynomial
4. polynomial having two terms
6. polynomial of degree one
9. degree of $5t^2 -7t+1$



PROJECT :

Prepare a Digital presentation using 'SWAY' (10 cards) on Chapter-2 and Chapter-4

अवकाश हेतोः गृहकार्यम्

कक्षा नवमी 2020–2021

विषय संस्कृतम्

1. शेमूषी पुस्तकात्

पाठः 2. स्वर्णकाकः

पाठः 3. गोदोहनम्

द्वयाभ्यां पाठाभ्यां दश – दश कठिनशब्दानां अर्थं चित्वा
हिन्दीभाषायां संस्कृतभाषायां च लिखत ।

2. व्याकरणे

धातुरूपाणि पंचलकारेषु लिखत –

(क) पठ् , गम् , वद् , भू , क्रीड् , नी , दृश् , अस् , कृ , पा

(ख) आत्मनेपदी सेव् , लभ् च लट् , लृट्लकारे च लिखत ।

3. शब्दरूपाणि – बालक , लता , नदी , साधु , अस्मद् , युष्मद् ।

(किम् त्रिषुलिङ्गेषु) लिखत एतानि रूपाणि कण्ठस्थी अपि
कृतानि ।

Science Holiday Homework

Class IX

Section A - Physics

Activity

Automobiles are fitted with a device that shows the distance travelled. Such a device is called an odometer. A car is driven from New Delhi to Mumbai, the difference between the final reading and the initial reading of the odometer is 1,550 km.

Suppose you have a road map with a scale of 1 cm representing 200 km. On this map, using the shortest line, distance between New Delhi and Mumbai is represented by 7 cm.

Read the above passage and answer the following questions:

1. Find the magnitude of displacement between New Delhi and Mumbai with the help of this road map.
2. What is more relevant to your journey, distance or displacement? Justify.
3. If a car travels from New Delhi to Mumbai and then returns back to New Delhi, what is the distance covered and displacement covered for the complete journey.

This activity has to be done on an A4 sized sheet.

Art Integration

- The following table gives distance moved by a bus at corresponding time intervals. Draw a graph on an **A3** size sheet showing distance covered by the bus with time choosing a suitable scale.

Time (h)	0	1	2	3	4	5
Displacement (km)	0	40	80	120	160	200

- From the graph, calculate, the speed of the bus during the following time interval 2 to 4 hours
- Mark the point corresponding to time 2 hours on the graph as **A** and that corresponding to 4 hours as **B** on the graph.
- Shade the area covered between distance-time graph and time axis which is used to calculate the speed of the body.
- Interpret the kind of motion from the shape of the graph.

Assignment (To be Done in Homework Notebook)

- What is the nature of distance-time graph for uniform and non-uniform motion of an object?
- What can you say about the motion of an object if its speed-time graph is a straight line parallel to the time axis.
- If velocity of a body changes regularly from u to v in time t , what is the average velocity of that object?
- Name the physical quantities whose S.I. unit are a) m/s b) m/s^2
- Differentiate between a) Distance and displacement b) Speed and Velocity
- Find distance and displacement of a body in each of the following situations
 - A body travels 25% of the circumference of a circular path having radius " r " cm
 - A body is thrown vertically upward from top of a building which is 30 m tall. The body goes 5 m high above the top of the building and then falls towards the ground and finally hits the ground.

7. When is a body said to be in uniform and in non-uniform motion? Give one daily life example of each.
8. On a 120 km track, a train travels the first 30 km at a uniform speed of 30 km/h. How fast must the train travel the next 90 km so as to average 60 km/h for the entire trip?
9. A RADAR spots an enemy plane. A radio pulse emitted by the radar and reflected by the plane reaches back in 2×10^{-4} s. Find the distance between the enemy plane and RADAR. (Speed of radio pulse = 3×10^8 s)
10. Speed of 4 bodies A, B, C, and D are 18 km/h, 12 m/s, 180 m/min, 60 km/min. Arrange them in the increasing order of speeds.

Section- B - Biology

ASSIGNMENT -THE FUNDAMENTAL UNIT OF LIFE

Do the assignment in Biology home work copy

- Q-1 Name the cell organelles which are semiautonomous.
- Q-2 Why are Viruses an exception to the cell theory?
- Q-3 Mitochondria is absent in prokaryotic cell. Where are respiratory enzymes located in these cells?
- Q-4 Where do lipids and proteins constituting the cell membrane get synthesized?
- Q-5 Which organelle in animal cell is associated with spindle formation during Cell division?
- Q-6 Why are Lysosomes known as suicidal bags?
- Q-7 Which structure of plant cell provides rigidity to the cell?
- Q-8 Why does the skin of your finger shrink, when you wash clothes for a long time?
- Q-9 Name the cell organelles which are bounded by double membranes.

Q-10 Why are tomato red while leaves green in colour?

Q-11 Which cell organelle is called the “Kitchen of the cell”? Justify your answer giving reasons.

Q-12 How does amoeba obtain and digest its food?

Q-13 How do substances like carbon dioxide and water move in and out of the cell?

Q-14 A person takes concentrated solution of salt. After some time he starts vomiting. Which phenomenon is responsible for such situation? Explain giving reasons.

Q-15 Draw neat labeled diagram of Plant cell and Animal cell.

Section- C - Chemistry

A. Revise: Chapter 1.Matter in our surroundings.

B. Read: Chapter- 2.Is matter around us pure? Note down all definitions, difficult words and terms in notes copy.

C. ASSIGNMENT: (Do assignment in notes copy)

1. Give the full form of CNG and LPG. What is common between the two?
2. Draw a diagram to show the arrangement of particles in a solid, a liquid and a gas. What can be interpreted from the distance between the constituent particles?
- 3.Explain giving examples the various factors on which rate of evaporation depends.
4. Give one word for the following
 - a. The tendency to flow and change shape
 - b. Mixing of substances on their own
5. Why a gas cylinder cannot be half-filled?
6. Why do liquids take up the shape of the container in which they are kept?
7. Why do people perspire a lot on a hot humid day?
8. Why does the temperature not change when ice melts to form water?

9. Cotton is solid but it floats on water. Why?

10. A balloon when kept in sun, bursts after some time. Why?

HOLIDAYS HOME WORK 2020-2021
CLASS IX (SOCIAL - SCIENCE)

- I. Prepare a PowerPoint presentation on **one topic** from Russian Revolution (chapter of history.)

GENERAL INSTRUCTIONS For making the presentation:

- Information should be taken from the book.
- Presentation should be made in **MS PowerPoint** with less text and more pictures.
- PPT should be 10-15 slides.
- Presentation will be assessed on the basis of following parameters:
 - originality,
 - timely submission,
 - Content accuracy.
- PPT should be mailed to the respective history teacher by 5th June ,2020.

- II. Prepare a **map album** of the following maps:

- Political map of India indicating states and capitals.
- World map showing the axis and the Allied powers.(from chapter 1,2 and 3) of history.
- European map having the major European countries with their capitals.

- III. Prepare a **glossary** of the chapters of the first term for all subjects.

- IV. Prepare chapter wise **objective type Questions** of the chapters mentioned below:

- **History**- French Revolution, Russian Revolution,
- **Political science**- constitutional design, electoral politics
- **Economics**- The story of village Palampur, Human Resource
- **Geography**- Chapter 2 – physical features of India.

- V. **Economics**: Write down a **comparative analysis** of the Union budget (2019-20 and 2020-21) on the following

- Policies initiated in health sector, educational sector and skill development sector
- Percentage of national income(GDP) spent on Health and Education (Use bar graphs and pie charts to show the analysis)

Note:

1. Questionnaire should be type and neatly pasted.
2. All the above work should be done in the class work registers of the respective subjects.

SUBJECT – GEOGRAPHY **Map Album (Outline Political Map of India)**

Chapter -2: Physical Features of India

- Mountain Ranges: The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western & Eastern Ghats
- Mountain Peaks – K2, Kanchan Junga, Anai Mudi
- Plateau - Deccan Plateau, Chotta Nagpur Plateau, Malwa Plateau
- Coastal Plains - Konkan, Malabar, Coromandal & Northern Circar (Location and Labelling)

Chapter -3: Drainage

- Rivers: (Identification only)
 - o The Himalayan River Systems-The Indus, The Ganges, and The Satluj
 - o The Peninsular rivers-The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi
- Lakes: Wular, Pulicat, Sambhar, Chilika

Project on disaster management

Guidelines for the Project:

1. Compulsory project of 5 marks.
2. The distribution of marks over different aspects relating to project work is as follows:-

S.NO.	Aspects	Marks
1	Content accuracy, originality and analysis	2
2	Presentation and creativity	2
3	Viva Voce	1

3. The Project Report should be handwritten by the students themselves.
4. Topics to be covered:-
 - Aims and objective
 - Causes of disaster
 - Effect of disaster
 - Any one case study
 - Preventive, Preparedness among the community, Response and Rescue measures
 - Innovative Suggestions.

Note:-

- Support your project with maps, diagrams, graph, pie diagram, images etc. Integrate different forms of art.
- You can take help of various local authorities and organizations like the Disaster Management Authorities, Relief, Rehabilitation and the Disaster Management Departments of the States, Office of the District Magistrate/ Deputy Commissioners, Fire Service, Police, Civil Defense etc.
- The projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
- Refer to this book-Together, Towards a Safer India - Part II, a textbook on Disaster Management for Class IX - Published by CBSE
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