



Government of Karnataka

SOCIAL SCIENCE

Textbook

Part - I

8

EIGHTH STANDARD

English Medium

KARNATAKA TEXTBOOK SOCIETY (R)

6th Cross, Malleshwaram, Bengaluru - 560 003

PREFACE

The Textbook Society, Karnataka has been engaged in producing new textbooks according to the new syllabi prepared which in turn are designed based on NCF – 2005 since June 2010. Textbooks are prepared in 11 languages; seven of them serve as the media of instruction. From standard 1 to 4 there is the EVS and 5th to 10th there are three core subjects namely mathematics, science and social science.

NCF – 2005 has a number of special features and they are:

- Connecting knowledge to life activities.
- Learning to shift from rote methods.
- Enriching the curriculum beyond textbooks.
- Learning experiences for the construction of knowledge.
- Making examinations flexible and integrating them with classroom experiences.
- Caring concerns within the democratic policy of the country.
- Make education relevant to the present and future needs.
- Softening the subject boundaries-integrated knowledge and the joy of learning.
- The child is the constructor of knowledge.

The new books are produced based on three fundamental approaches namely.

Constructive approach, Spiral Approach and Integrated approach

The learner is encouraged to think, engage in activities, master skills and competencies. The materials presented in these books are integrated with values. The new books are not examination oriented in their nature. On the other hand they help the learner in the total development of his/her personality, thus help him/her become a healthy member of a healthy society and a productive citizen of this great country, India.

In Social science especially in standard V the first chapter deals with the historical, geographical, cultural and local study of the division in which learners live. Chapters on sociology, business studies and commerce are introduced in standard VIII as per the guidelines of NCF-2005. A lot of additional information is given through box items. Learners are encouraged to work towards construction of knowledge through assignments and projects. Learning load of memorizing dates has been reduced to the minimum. Life values have been integrated with content of each chapter.

The Textbook Society expresses grateful thanks to the chairpersons, writers, scrutinisers, artists, staff of DIETs and CTEs and the members of the Editorial Board and printers in helping the Text Book Society in producing these textbooks.

Prof. G.S. Mudambadithaya

Coordinator

Curriculum Revision and Textbook Preparation
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Nagendra Kumar

Managing Director

Karnataka Textbook Society®
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FOREWORD

The text book which is being prepared for the high school students has come out differently and distinctively. This book has come out with unique features while compared with the previous texts that have appeared in the Text book. It should be noted that the 8th standard text book has incorporated Political Science, Sociology, Economics and Business Studies along with the traditional subjects like History and Geography as per the guidelines of NCF-2005.

We have made all the attempts to make this text easily understood and read comfortably, since this is a project of the Government oriented towards the common man. The present text has included the creative curriculum in order to discourage rote-learning in the system. We have designed the texts as it should correlate with the experiences of the students. We have deleted unnecessary dates and data that are burdensome to the students. Instead, the text gives attention to the historical understanding and the process. Besides, the text has provided ample information in order to understand contemporary affairs in the boxes throughout the text. We have endeavoured to project these issues as part of the experience of both the students and teachers. Members of the text book preparation committee dedicated themselves to prepare this text on international academic standards.

I acknowledge the members of the text book preparation committee for bringing this text successfully. I extend my gratitude to the Editorial Board, Translation Committee, Scrutinizers and Chief Advisors for their valuable suggestions in bringing out this text book.

I am grateful to Prof. G.S. Mudambadithaya, Officers and technical assistant of the Karnataka Text Book Society for their dedication in involving in the text book preparation project. I thank Dr. Shashikantha Koudur of NITK, Surathkal for his effort in editing the language in the text book.

Prof. Vijay Poonacha Thambanda

Chairperson
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About the Revision of Textbooks

Honourable Chief Minister Sri Siddaramaiah who is also the Finance Minister of Karnataka, in his response to the public opinion about the new textbooks from standard I to X, announced, in his 2014-15 budget speech of constituting an expert-committee, to look into the matter. He also spoke of the basic expectations there in, which the textbook experts should follow: “The textbooks should aim at inculcating social equality, moral values, development of personality, scientific temper, critical acumen, secularism and the sense of national commitment”, he said.

Later, for the revision of the textbooks from class I to X, the Department of Education constituted twenty seven committees and passed an order on 24-11-2014. The committees so constituted were subject and class-wise and were in accordance with the standards prescribed. Teachers who are experts in matters of subjects and syllabi were in the committees.

There were already many complaints, and analysis about the textbooks. So, a freehand was given in the order dated 24-11-2014 to the responsible committees to examine and review text and even to prepare new text and revise if necessary. Eventually, a new order was passed on 19-9-2015 which also gave freedom even to re-write the textbooks if necessary. In the same order, it was said that the completely revised textbooks could be put to force from 2017-18 instead of 2016-17.

Many self inspired individuals and institutions, listing out the wrong information and mistakes there in the text, had sent them to the Education Minister and to the Textbook Society. They were rectified. Before rectification we had exchanged ideas by arranging debates. Discussions had taken place with Primary and Secondary Education Teachers’ Associations. Questionnaires were administered among teachers to pool up opinions. Separate meeting were held with teachers, subject inspectors and DIET Principals. Analytical opinions had been collected. To the subject experts of science, social science, mathematics and languages, textbooks were sent in advance and later meeting were held for discussions. Women associations and science related organisation were also invited for discussions. Thus, on the basis of all inputs received from various sources, the textbooks have been revised where ever necessary.

Another very important aspect has to be shared here. We constituted three expert committees. They were constituted to make suggestions after making a comparative study of the texts of science, mathematics and social science subjects of central schools (NCERT), along with state textbooks. Thus, the state textbooks have been enriched basing on the comparative analysis and suggestions made by the experts. The state textbooks have been guarded not to go lower in standards than the textbooks of central schools. Besides, these textbooks have been examined along side with the textbooks of Andhra Pradesh, Kerala, Tamil Nadu and Maharashtra states.

Another clarification has to be given here. Whatever we have done in the committees is only revision, it is not the total preparation of the textbooks. Therefore, the structure of the already prepared textbooks have in no way been affected or distorted. They have only been revised in the background of gender equality, regional representation, national integrity, equality and social harmony. While doing so, the curriculum frames of both central and state have not been transgressed. Besides, the aspirations of the constitution are incorporated carefully. Further, the reviews of the committees were once given to higher expert committees for examination and their opinions have been inculcated into the textbooks.

Finally, we express our grateful thanks to those who strived in all those 27 committees with complete dedication and also to those who served in higher committees and experts of revised text also. At the same time, we thank all the supervising officers of the Textbook Society who sincerely worked hard in forming the committees and managed to see the task reach it's logical completion. We thank all the members of the staff who co-operated in this venture. Our thanks are also due to the subject experts and to the associations who gave valuable suggestions.

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FOREWORD

On review of text books

The textbooks published in the year 2014 went under revision the same year for political reasons. The revised textbooks reached the students only in 2017-18 school year. The changes made in revised textbooks came under wide scrutiny and criticism. Since there was an all-round objection that such a textbook revision was done with an objective of propagation of a certain ideology that benefitted self-interests, side-lining education's core intention, the honourable Karnataka Government in 2021 formed a committee mandating to re-review such textbooks. The committee has reviewed in depth, such textbooks which had attracted objections, and has recommended certain changes. Today's children are tomorrow's nation, they say. The future of our society depends on what we teach the children of today in schools. The textbooks that students study must have healthy thoughts and concepts. It must not be spreading mutual distrust, hatred, neglect amongst the different class and communities of the society; should incite nationalism and patriotism. The textbooks should provide objective information about the past events of state and nation. They must introduce local culture, language and traditions to the students. Overall, the textbooks must make the students fine, responsible, conscious, open minded and honourable citizens. The textbook revision had to be made by bearing this responsibility in mind. We had to build a framework for ourselves for reviewing and revising the textbooks. Primarily, our intention was to ensure that the social science textbook

- (1) contained no content that was disrespectful towards any caste, religion, philosophy, community or individual
- (2) subjects to be presented in a systematic, chronological order
- (3) had to be made knowledge-bank instead of an information dump of unnecessary matters
- (4) had to be made bereft of any self-interest ideology
- (5) had to be devoid of half-truths, falsehoods, exaggerations, judgemental information and instead must present facts which have authoritative basis
- (6) had to contain all subjects with deserving representation
- (7) had to include historically neglected facts, based on their importance
- (8) had to be corrected for the errors, as far as possible.

At every stage of revision, we were cautious that social science textbooks have to make our students conscientious citizens who will have love, pride

about our nation, not create a community that has negligence and repulsion for a few castes, communities, languages and religions of this nation.

The 'best textbook' is an ideal state. Our intention is to walk towards such an ideal state. However, to create such a thing in exact sense is not possible. With this humbleness, we have completed re-reviewing the textbooks and present you the revised version. This is only a review, not a comprehensive recreation. The intent and form of the already created textbooks (2014) remain intact. The entire revision has happened following the state syllabus framework which itself is based on the national curriculum framework. In addition, the intent of the Constitution has been upheld. I am grateful to all my colleagues of the review committee who have finished this job in the best possible way. Also, thankful to all the officers and staff of the textbook association who cooperated in the smooth conducting of the committee's functions. This revision, we believe, will reflect the intent of the new National Education Policy and also become the starting point for the comprehensive revision of textbooks to come.

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ಮುನ್ನುಡಿ

2023-24ನೇ ಸಾಲಿನಲ್ಲಿ ಜಾರಿಯಲ್ಲಿರುವ ಒಂದರಿಂದ ಹತ್ತನೇ ತರಗತಿಯ ವರೆಗಿನ ಕನ್ನಡ ಭಾಷಾ ಪಠ್ಯಪುಸ್ತಕಗಳು ಮತ್ತು ಆರರಿಂದ ಹತ್ತನೇ ತರಗತಿಯವರೆಗಿನ ಸಮಾಜ ವಿಜ್ಞಾನ ಪಠ್ಯಪುಸ್ತಕಗಳನ್ನು ಪರಿಷ್ಕರಿಸುವುದಕ್ಕಾಗಿ ವಿಷಯ ತಜ್ಞರು, ಪ್ರಾಥಮಿಕ ಹಾಗೂ ಪ್ರೌಢಶಾಲಾ ಶಿಕ್ಷಕರು ಹಾಗೂ ಉನ್ನತ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಬೋಧಿಸುವವರು ಸದಸ್ಯರಾಗಿದ್ದ ಐದು ಸಮಿತಿಗಳನ್ನು ರಚಿಸಿ, ಸರ್ಕಾರವು ಆದೇಶವನ್ನು ಹೊರಡಿಸಿತು. ಈ ಸಮಿತಿಗಳು ಮೂರು ತಿಂಗಳಿಗೂ ಹೆಚ್ಚು ಕಾಲ ಪರಿಷ್ಕರಣೆಯ ಕಾರ್ಯವನ್ನು ನೆರವೇರಿಸಿದೆ. ಪ್ರಸ್ತುತ ಪರಿಷ್ಕರಣೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಈ ಕೆಳಗಿನ ಅಂಶಗಳನ್ನು ಸ್ಪಷ್ಟಪಡಿಸಲು ಬಯಸುತ್ತೇವೆ.

1. ರಾಷ್ಟ್ರೀಯ ಹಾಗೂ ರಾಜ್ಯ ಪಠ್ಯಕ್ರಮ ಚೌಕಟ್ಟುಗಳು ಮತ್ತು ಸಂವಿಧಾನದ ಆಶಯಗಳಿಗೆ ವ್ಯತಿರಿಕ್ತವಾಗದಂತೆ, ಪರಿಷ್ಕರಣೆಗೆ ಒಳಪಟ್ಟ ಪಠ್ಯಪುಸ್ತಕಗಳ ಮೂಲ ಸ್ವರೂಪ ಬದಲಾಗದಂತೆ, ವಿದ್ಯಾರ್ಥಿಗಳ ಶೈಕ್ಷಣಿಕ ಹಿತಾಸಕ್ತಿಯನ್ನಷ್ಟೇ ಗಮನದಲ್ಲಿರಿಸಿಕೊಂಡು ಈ ಪರಿಷ್ಕರಣೆಯನ್ನು ನಡೆಸಲಾಗಿದೆ.
2. ಪ್ರಸ್ತುತ ಪರಿಷ್ಕರಣ ಸಮಿತಿಗೆ ಪೂರ್ವದಲ್ಲಿಯೇ ಶಾಲಾ ಶಿಕ್ಷಣ ಇಲಾಖೆಯು ಹೊರಡಿಸಿದ್ದ “2023-24ನೇ ಸಾಲಿನ ಪಠ್ಯಪುಸ್ತಕಗಳ ತಿದ್ದುಪಡಿ” ಯನ್ನು ಸಮಿತಿಯು ಅಳವಡಿಸಿಕೊಂಡಿದೆ.
3. ವಿವಿಧ ಸಂಘಟನೆಗಳು, ವ್ಯಕ್ತಿಗಳು ಹಾಗೂ ಸರ್ಕಾರದ ಇಲಾಖೆಗಳು ಪಠ್ಯಪುಸ್ತಕದಲ್ಲಿ ನಿರ್ದಿಷ್ಟ ವಿಷಯಾಂಶವನ್ನು ಅಳವಡಿಸುವ/ಕೈಬಿಡುವ/ಪರಿಷ್ಕರಿಸುವ ಕುರಿತು ಮಾಡಿದ ಎಲ್ಲಾ ಮನವಿಗಳನ್ನು ಪರಿಶೀಲಿಸಿ ಸೂಕ್ತವೆನಿಸಿದ ಸಲಹೆಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳಲಾಗಿದೆ.
4. ವಿವಿಧ ವ್ಯಕ್ತಿಗಳು, ಸಂಘಟನೆಗಳು ಸ್ವಯಂ ಪ್ರೇರಣೆಯಿಂದ ಅಪಾರ ಶ್ರಮ ಹಾಗೂ ವ್ಯವಧಾನದಿಂದ ಪಠ್ಯಪುಸ್ತಕಗಳಲ್ಲಿರುವ ವಿಸಂಗತಿ, ಆಶಯ ದೋಷ ಹಾಗೂ ಅಪಕಲ್ಪನೆಗಳನ್ನು ಜಾಲತಾಣಗಳಲ್ಲಿ ಹಾಗೂ ಪತ್ರಿಕೆಗಳಲ್ಲಿ ವ್ಯಾಪಕವಾಗಿ ಚರ್ಚಿಸಿದ್ದವು. ಈ ಬಹುತೇಕ ಎಲ್ಲಾ ಬರಹಗಳನ್ನು ಗಮನಿಸಿ, ಚರ್ಚಿಸಿ ಸೂಕ್ತ ಪರಿಷ್ಕರಣೆಯನ್ನು ಮಾಡಲಾಗಿದೆ.
5. ನಿರ್ದಿಷ್ಟ ಪಠ್ಯಗಳನ್ನು ಬೋಧಿಸುವ ಶಿಕ್ಷಕರಿಂದ ಪಡೆದುಕೊಂಡ ಅಭಿಪ್ರಾಯಗಳು ಸಹ ಪ್ರಸ್ತುತ ಪರಿಷ್ಕರಣೆಯಲ್ಲಿ ಅಪಾರ ನೆರವು ನೀಡಿವೆ.

ವಿಷಯಾಂಶಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಪರಿಷ್ಕರಣೆಯೊಂದಿಗೆ ಪಠ್ಯಪುಸ್ತಕಗಳಲ್ಲಿರುವ ಎಲ್ಲಾ ಬಗೆಯ ಅಂಕಿ ಅಂಶಗಳು, ಮಾಹಿತಿಗಳು ಮತ್ತು ನಕ್ಷೆಗಳನ್ನು ಈ ಪರಿಷ್ಕರಣೆಯ ಹೊತ್ತಿಗೆ ಲಭ್ಯವಿರುವ ಮಾಹಿತಿಗಳನ್ನು ಒಳಗೊಳ್ಳುವಂತೆ ನವೀಕರಿಸಲಾಗಿದೆ.

ಮಕ್ಕಳ ಪಠ್ಯಪುಸ್ತಕದ ಹೊರೆ ಕಡಿಮೆ ಮಾಡುವ ನಿಟ್ಟಿನಲ್ಲಿ ಎಲ್ಲಾ ಪಠ್ಯಪುಸ್ತಕಗಳನ್ನು ಪ್ರಸ್ತುತ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ ಎರಡು ಸಂಪುಟಗಳಾಗಿ ವಿಭಾಗಿಸುವ ಸರ್ಕಾರದ ನಿರ್ಣಯಕ್ಕೆ ಅನುಸಾರವಾಗಿ,

ಎರಡೂ ಸಂಪುಟಗಳಲ್ಲಿನ ಕಲಿಕಾಂಶಗಳು/ಪಾಠಗಳು ಸರಳತೆಯಿಂದ ಸಂಕೀರ್ಣತೆಯೆಡೆಗೆ ಸಾಗುವಂತೆ ವ್ಯವಸ್ಥಿತವಾಗಿ ಅಳವಡಿಸಲಾಗಿದೆ.

ಈ ಪರಿಷ್ಕರಣಾ ಕಾರ್ಯದಲ್ಲಿ ತಮ್ಮನ್ನು ತೊಡಗಿಸಿಕೊಂಡು ಕ್ಲುಪ್ತವಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸಿದ ಐದೂ ಸಮಿತಿಗಳ ಅಧ್ಯಕ್ಷರು ಮತ್ತು ಸದಸ್ಯರನ್ನು ಅದರಲ್ಲೂ ಪಠ್ಯ ಬೋಧನೆಯ ತಮ್ಮ ಅನುಭವವನ್ನು ಪರಿಷ್ಕರಣೆಯಲ್ಲಿ ಧಾರೆಯೆರೆದ ಪ್ರಾಥಮಿಕ ಮತ್ತು ಪ್ರೌಢಶಾಲಾ ಶಿಕ್ಷಕರನ್ನು ಕೃತಜ್ಞತೆಯಿಂದ ನೆನೆಯುತ್ತೇವೆ. ಪಠ್ಯಪುಸ್ತಕಗಳ ಕುರಿತು ತುಂಬ ಕಳಕಳಿಯಿಂದ ಗಂಭೀರ ಅಧ್ಯಯನ ನಡೆಸಿ ಬರೆಹಗಳನ್ನು ಪ್ರಕಟಿಸಿದ ವ್ಯಕ್ತಿಗಳು, ಸಂಘಟನೆಗಳು ಮಾಡಿದ ಶೋಧಗಳು ಪ್ರಸ್ತುತ ಪರಿಷ್ಕರಣೆಯ ಕಾರ್ಯಕ್ಕೆ ತುಂಬಾ ಸಹಾಯ ಮಾಡಿವೆ. ಅಂತಹ ಎಲ್ಲಾ ಸ್ಪಂದನೆಗಳಿಗೂ ನಾವು ಕೃತಜ್ಞರಾಗಿದ್ದೇವೆ.

ಸಮಿತಿಗಳ ಕೆಲಸ ಸುಗಮವಾಗಿ ನಡೆಯುವಂತೆ ವ್ಯವಸ್ಥೆ ಮಾಡಿದ ಇಲಾಖಾ ಅಧಿಕಾರಿಗಳು ಮತ್ತು ಪಠ್ಯಪುಸ್ತಕ ಸಂಘದ ಎಲ್ಲಾ ಅಧಿಕಾರಿಗಳಿಗೂ, ಸಿಬ್ಬಂದಿಗಳಿಗೂ ವಂದನೆಗಳು.

ಎನ್. ಮಂಜುಶ್ರೀ . ಭಾ.ಆ.ಸೇ
ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು
ಕರ್ನಾಟಕ ಪಠ್ಯಪುಸ್ತಕ ಸಂಘ(ರಿ),
ಬೆಂಗಳೂರು

ಡಾ ಎಂ. ಜಿ. ಹೆಗಡೆ
ಮುಖ್ಯ ಸಂಯೋಜಕರು
ಪಠ್ಯಪುಸ್ತಕ ಪರಿಷ್ಕರಣಾ ಸಮಿತಿ

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HISTORY

CHAPTER-1

SOURCES



After studying this chapter you learn :

- Importance of Sources in studying History.
- Different Literary Sources.
- Meaning and Importance of Archaeological Sources.
- The Oral Sources and Legends.

Why are the sources necessary for the construction of history ? and what are sources? These are very important questions. Sources are the basic material necessary for the construction of History. They provide details on the different dimensions of the lives of the people of particular period. The historians analyse different related sources a regarding different past events and construct history. When there is no availability of specific sources, the historians sometimes assume the history on the basis of available sources. Human history is very complex in nature. Hence often an event is analysed from different perspectives by different historians. Analysis is a continuous process and new understandings comes out of it. The past cannot be changed but the understanding about the past come out in a different perspective.

History is not only the study of historic persons, events and specific struggles but also to know about the complex process of different stages of human evolution. In order to know this process historians use different sources. The historians reconstruct objective history which is nearer to truth by collecting, studying and analysing the records. When the research methods become more scientific the historical writings will be more valuable. Hence it is very essential to give training on research methods to historical researchers.

The agricultural tools left by the ancient people, temples and other religious buildings, forts, inscriptions, coins, different types of weapons, written documents, literary works, oral literatures etc. are the sources of history.

Types of Sources :

- a. Literary Sources
- b. Archaeological Sources
- c. Oral Sources and Legends

Types of Literary Sources

1. Native Literature
2. Foreign Literature

Archaeological Sources

1. Inscriptions
2. Coins
3. Monuments
4. Excavations

a) Literary Sources

Written Literature is classified into the Native Literature and the Foreign Literature. Written literatures depict the particular periods. They portray the then existing aspects of life either directly or indirectly. Through various analyses, the historians analysed the truths given by the literature.

1. Native Literature : The literature written by Indians is called Native literature. We can see this type of literature in all Indian languages which have written form. Sanskrit, Prakrit, Kannada, Tamil, Telugu, Marathi and all other Indian languages have this type of rich literary heritage. Vishakadatta's 'Mudrarakshasa', Kalhana's 'Rajatarangini', Ashwaghosha's 'Buddha Charita', Kautilya's 'Arthashastra', Hala's 'Gathasaptashati', Banabhatta's 'Harsha Charita', Chand Bardayi's 'Prithviraja Raso', Pampa's 'Vikramarjuna Vijaya', Sangam Literature, the 'Tripitikas' of Buddhist literature, Srivijaya's 'Kavirajamarga' are worth mentioning.

2. Foreign Literature : The literature written by foreign writers, travellers, scholars are called foreign literature. Megasthenes' 'Indica', Huientsang's 'Si-Yu-Ki', Fa-Hien's 'Gho-Kho-Ki', Ceylon's 'Deepavamsa' and 'Mahavamsa',



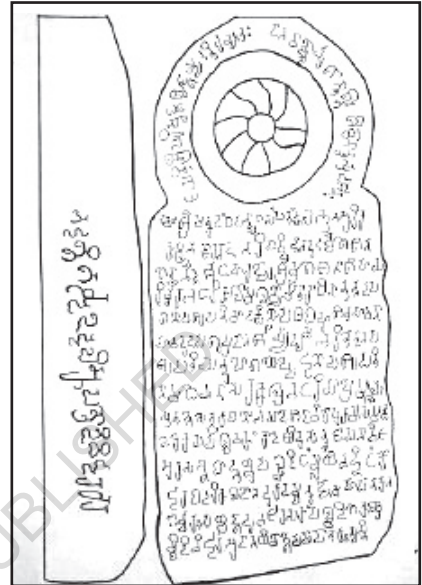
Huientsang

Ptolemy's 'Geography', Baranis Tarikh-E-Firoz Shahi, the writings of Furneo Nuniz and the writings of Barbosa and Nicolo Conti who visited the Vijayanagar Empire are some examples of this kind of sources.

b) Archaeological Sources : The inscriptions, coins, monuments, pots, artefacts and other ruins that have been obtained during researchs and excavations are called Archaeological Sources. The materials available inside the earth are also archaeological sources. Harappan civilization came into light like this.

1) Inscriptions

Inscriptions are the living evidences of respective period. They provide us information about religion, culture, economy, administration and other aspects of that period. The earliest inscription obtained in our country is the inscription engraved by the Mauryan Emperor Ashoka. He engraved inscriptions on the rocks and stone pillars. His inscriptions are found in many places in India. These are mostly in Brahmi and Kharoshti Script in Prakrit language. Some inscriptions have been found in Greek and Armic language too. Ashoka's inscriptions have been found in Maski and Bramhagiri in Karnataka. The first inscription available in Kannada language is the Halmidi Inscription. This was engraved during the reign of King Kakutsavarma of the Kadamba dynasty. Samudra Gupta's Allahabad Piller Inscription, Aihole Inscription of Pulikeshi II, Kharavela's Hathigumpu Inscription, Uttarameruru Inscription of Cholas etc. play a very important role in the construction of history.



Halmidi Inscription

2) Study of Coins : Numismatics is the study of the evolution, nature and development of Coins. Coins have been minted by using a variety of metals. These play a significant role in re-constructing history. The study of coins not only represents the ‘Symbol of Power’ of the king who issued the coins but also provides information regarding the religion, culture, administration, social and economic aspects of the periods to which they belonged. Samudra Gupta has issued seven different types of gold coins. The availability of Roman coins in Bengaluru proves the fact that this region had trade link with Roman’s 2000 years ago.



Coins

3) Monuments : Monuments are the most important archeological sources. The buildings that remain as the living evidence of Indian cultural heritage are called monuments. For example : temples, basadis, chaityalayas, stupas, palaces, forts, sculptures etc. They enable us to know about the social, political and religious conditions, technology and other aspects of the particular period. Ashoka’s Pillars, Ajanta and Ellora Caves, the Elephanta Caves, Badami, Aihole and Pattadakallu of Karnataka are the evidence of India’s glorious heritage. Meharuli’s Iron Pillar and Vijayapura’s Whispering Gallery of Gol Gumbaz are the evidence of the maturity of the science and technology of that period. Gol Gumbaz of Vijayapura, Tajmahal of Agra etc are not only the monuments but also throw light on the creativity, technology and scientific knowledge of this period.

4) Excavations

Excavation is the process of digging out the hidden ruins in the earth through scientific methods. For example, the excavations

conducted at Bimbetka and Sanganakallu give us the information to reconstruct the history of stone age culture and the ruins found during the excavations conducted at Harappa and Mohenjodaro provide evidences for reconstructing the history of Indus Valley Civilization.

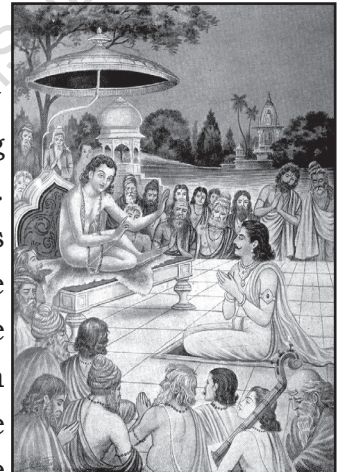


Excavations

c) Oral Sources and Legends

In oral tradition, the memory of human society is recorded. Today many oral sources are being used to understand the diverse Indian heritage. From time immemorial, human society has preserved its experiences and memories in the form of poems, songs and ballads. They are passed on from generation to generation through oral communication. Oral literature helps to know the local history. There are abundant oral literature on the Nayakas of Chitradurga, Kempegowda, Tippu Sultan, Sangolli Rayanna, Kitturu Rani Chennamma,

Sindhura Lakshmana, Meadows Taylor and others. There are many oral narratives on Kaivara Narayana Taatha, Sevalal, Shishunala Sharif and many others. Many tribes and the communities who were illiterates preserved their experiences through oral literature.



Sage Shuka narrating mahabharatha to Parikshit and the sages

There are many legends related to individuals, events, heritage, customs and many places of India. Legends are also referred to as Sthala-Puranas. Usually they do not provide direct information for the study of history. They reflect social beliefs. They also highlight the glory of certain individuals or the significance of a particular place. Generally we come across Sthala-Puranas related to religious places.

You should know

C-14 - Radio active carbon. This should be done only to the biological fossils (tree, birds, plants, and animals). In every being, the C-14 and C-12 are present in equal amounts. After the death of the living being, C-12 remains constant, but C-14 starts losing its volume. It loses half of C-14 by 5700 years. If one can estimate the levels of C-12 and C-14, one can estimate the accurate age of the fossil. Fossils which are ten thousand years old can also be identified using this carbon dating method.

EXERCISES

I. Fill in the blanks with suitable words :

1. The two kinds of literary sources are _____ and _____.
2. A literary source of Aswaghosha is _____.
3. The first inscription found in Kannada language is _____.

II. Answer the following questions in brief :

4. What are sources?
5. Give two examples for native and foreign literature each.
6. What is Numismatics?

7. What are archaeological sources? Explain with examples.
8. Oral sources help us to know about the local history. Explain.

III. Activities :

1. Discuss with your teacher how history helps to know the present.
2. Visit a monument and collect information about it.
3. Collect the coins of the historic period.
4. Visit an Archaeological Museum.

IV. Project :

1. Collect information about coins and prepare a small project.



CHAPTER-2

BHARATHAVARSHA : GEOGRAPHICAL FEATURES AND PREHISTORIC PERIOD



After studying this chapter you learn :

- India is a subcontinent and peninsula.
- The physical features of India.
- Locating the neighbouring countries of India.
- The lifestyle of man in pre-historic period.
- The stone ages of pre-historic period in India.

The geographical environment has influenced the history and the formation of culture of every country and race in the world. There is an intimate relationship between human life and the environment. Hence it is necessary to learn about the geographical environment in order to know about human history. India is a sub-continent occupying a huge area in the southern part of the Asian Continent. It is a peninsula, surrounded by water on three sides and land on one side. India shares its boundaries with Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar. The map given below specifies what constituted Greater India was also called Bharathavarsha, Bharatha Khanda, Sindhudweepa, Akhandabharatha and Greater India too. At present India consists of 28 states and 8 union territories including the national capital territory (Delhi).

India's geographical features comprise the Himalayan Range of Mountains in the North, the Indo-Gangetic Plain, the Deccan Plateau in the South and the Coastal Region.

The snow-capped mountains in the North include some of the tallest mountain peaks in the world. They help to preserve the safety and security of India. There have been a few intrusions into ancient India from the northern Himalayan region. The attacks have been mainly from the north- western side through the valleys of Bolan and Khyber passes.

The flat Indo-Gangetic Plains are very fertile. The ancient civilizations of Indus Valley and Vedic period flourished here. Many battles have been fought all the time to establish control over this area.

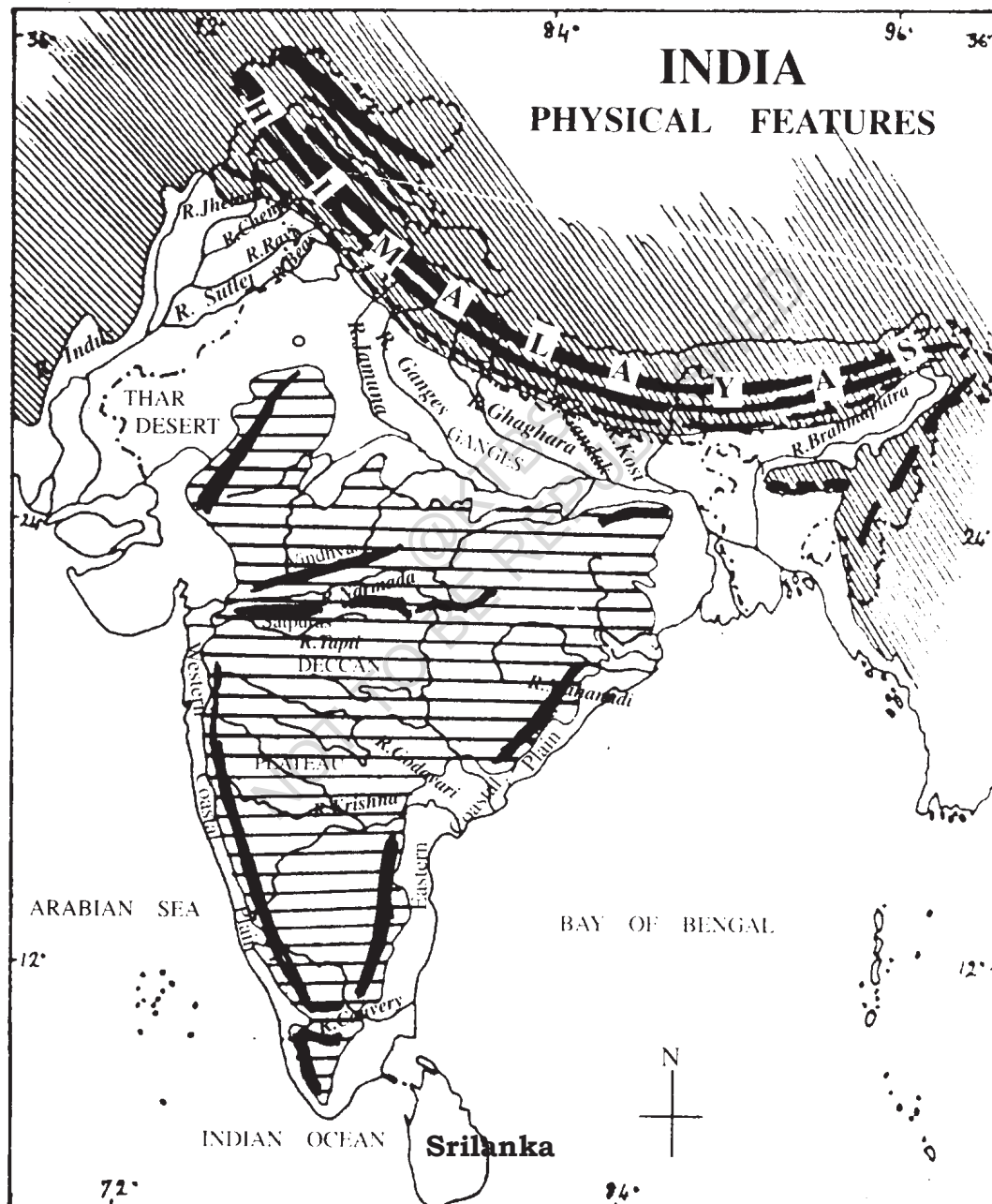


Akhand bharat included all these areas

The Narmada river separates India into two parts - the Malwa Plateau or the Central Highlands and the Deccan Plateau, in the south. The Mauryas and the Guptas ruled these two areas of ancient India. This division of North and South India leads to cultural diversity.

The mainland of India has a coastline of 6,100 kms. including Islands India has 7,516.60 kms. of coastline. The eastern coastline is called the Coromandel Coast and Utkal Coast, whereas the western coastline is referred to as Konkan and Malabar Coast. The

numerous ports on this coastline had attracted the Romans from time immemorial. Foreign trade was carried on in those days only through sea-routes. Thus these ports were developed and became the cause for the rise of powerful kingdoms in the South like the Pandyas, the Cheras and the Cholas.



The diversity in the Indian geographical environment has also influenced the lives of communities living here. Despite the cultural diversity, there exists a cultural unity which binds all these diversities. 'Unity in Diversity' is the essence of this culture.

The Pre-Historic Age

The period before the discovery of the art of writing is called the Prehistoric Age. This is so because we do not find evidences to the linguistic development or to the use of script. We do not get any written records for the study of history of this period. Then how do we get to know about the people and their life in the prehistoric age? The scholars who study this period are called Archaeologists. In this age, man was a nomad and indulged in hunting and food-gathering. Archaeologists have discovered some implements created and used by these people. Probably they used weapons made of stone, wood and bones. Among these, only weapons made of stone have survived today, providing us sources for study. Human beings in the prehistoric age used stone implements to peel the skin and separate the flesh and bones of animals, to scrape the bark of trees, and to cut fruits and roots. The people used to create handles out of bones and wood, and used them like spears and arrows and hunted animals. They used stones as axes to chop down trees and cut them up into logs. They might have used wood to build huts for themselves, or to make handles for their weapons. The above explanations construct the important features of prehistoric periods.

Classification of History

- 1) Pre-historic period :** The period in which we have only archaeological ruins for reconstructing history. For e.g - Stone Age culture.
- 2) Proto-Historic period :** The period in which we have written documents along with archaeological ruins, but can't be read. For e.g - Indus Valley Civilization
- 3) Historic Period :** The period which has archaeological ruins and written documents for the reconstruction of history. For e.g - Starting from Vedic Civilization.

The areas chosen by Prehistoric Man

The relics of the hunting and food-gathering man are available in Bimbetka, Hunasagi and Kurnool in India. There are many other sites

in which such relics have been found. Most of these sites have been discovered along the banks of rivers and lakes. Furthermore, since stone implements were essential for the survival of people of that age, they chose areas abundant with stone which could fulfil their needs. Areas where people used stones to create various implements have been considered as industrial sites.

How do we get to know about such industrial sites? Usually we get to see stone implements around rocky areas. People might have rejected some stones as unsuitable for their implements. Heaps of broken rocks or stone-chips obtained during the making of these implements were found in such areas. People lived for a long time in these places. These sites are called residential and industrial sites.

Awareness about fire

Signs of ashes have been found in the caves of Kurnool. They reveal the awareness and the use of fire by the people of the Stone Age. Probably fire was used for various purposes like to cook food, to lighting and safety from animals.

Drawings found in caves

We get to see some drawings in many caves in which people lived in the Stone Age. Even today we can see the drawings done on the walls of caves and on rocks. Such cave-drawings can be seen in Madhya Pradesh, Uttar Pradesh and Karnataka. There are beautiful drawings of wild animals and of hunting.

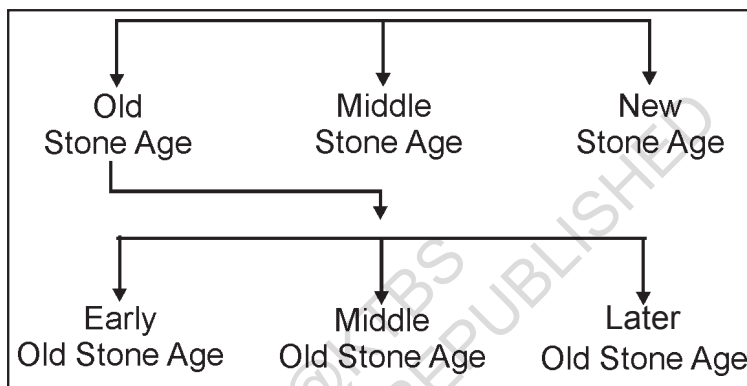
The changing environment

It is believed that 12,000 years ago a major change took place in the world's environment. The earth's temperature began to increase gradually. This led to the development of grasslands in many places. Birds and animals began to multiply in unprecedented numbers. Animals like deer, elks, goats, sheep and others flourished in these grasslands. Men who had been hunting animals, began to observe their nature, food habits and the way these animals breed. Over a period of time, he captured these animals and domesticated them. This was the way the practices of animal husbandry and dairy farming began. Man had by now, learnt to catch fish in streams and lakes.

Man learnt to use rice, wheat and barley as food and gradually he learnt to grow them too.

Archaeologists refer to the age we discussed now, by different names. The age which prevailed 2 million years ago is the oldest period and is called the Old Stone Age, and it stretched over a period of 12,000 years. This long duration has been classified into three stages is - the Early, Middle and Late Old Stone Ages.

Diagram showing the stages of the Prehistoric age



Weapons

The period from 12,000 years to around 10,000 years is called the Middle Stone Age. The weapons of this period are generally very small and hence they are called delicate stone weapons. Man used fashionable handles from delicate stone for weapons made from bone and wood. He used those implements as axes and saws. Along with these tools, weapons of the old kind too continued to exist.

The New Stone Age began after 10,000 years. The stone weapons of this period are different from those of the earlier periods. These weapons were bright and had sharp blades. People of this age used grinding stones for grinding leaves and herbs and for powdering grains and cereals. Some pots and pans of this period have been found, a few of which have been decorated. Pots were used for storing grains. They were also used for cooking rice, wheat and other grains and cereals. People of this age had learnt to weave cloth.

EXERCISES

I. Fill in the blanks with suitable words :

1. Geographically, India is a subcontinent and _____.
2. Signs of ashes have been found in caves of _____.
3. The weapons of the Middle Stone Age are called _____.

II Answer to the following questions in brief :

4. Describe briefly the physical features of India.
5. Which are the two valleys intrusions that attacked India?
6. What is meant by 'Prehistoric Age'?
7. How did animal husbandry and dairy farming evolve?
8. The different periods of prehistory have been given various names by the archaeologists. What are they?

III Activity :

1. Visit an ancient site or museum along with your parents and learn more about it from your teacher.



CHAPTER-3

ANCIENT INDIAN CIVILIZATIONS : SINDHU-SARASWATI CIVILIZATION AND VEDIC CIVILIZATION



After studying this chapter you learn :

- Sindhu-Saraswati Civilization - Town planning, lifestyle and decline of towns.
- Vedic Civilization - Life style.

Sindhu-Saraswati Civilization

India was the birth place of a civilization during ancient period. The civilization that was flourished here is called Sindhu Saraswati Civilization, Harappan Civilization etc.

This Civilization is also known as Indus Valley Civilization, Sindhu - Saraswati Civilization, 'Harappan Civilization, Mohenjodaro Civilization' and so on. It is known as Harappan Civilization because the sign of civilization was discovered in Harappa for the first time. In 1924 John Marshal announced it as Harappan Civilization for the first time, so it came to be known as Harappan Civilization.

The history of birth and evolution of civilization is very curious. The community who led nomadic life gradually started to live a stable life. They learnt to build houses, to produce the food grains, cattle rearing and so on. This type of civilization existed in India about 5000 years ago. Majority of sites found at Sindh and Punjab. Later on many sites of Harappan Civilization were discovered at Rajasthan, Gujarat and so on.

The period of Harappan Civilization is also called as Bronze Age.

After the discovery of Harappan and Mohenjodaro sites, the belief that the study of Indian History began from Vedic period, became changed. It came to be proved that Indian civilization is contemporary to the world civilization.

Discovery of the Indus Valley Civilization

The discovery of the Indus Valley Civilization, which is recognized as the oldest civilization in the world, is very interesting. Dayaram Sahani in 1920 at Harappa and RD Banerjee in 1921 at Mohenjo-daro carried out archaeological excavations to find the ruins of the ancient Indus River Civilization. Based on these Sir John Marshall was the head of Indian Archaeology department published about the discovery of ancient civilization of India in the English news paper the 'Illustrated London News' of september 1924. With this, the world got to know about 5000 years old culture of India. Explorations had also taken place earlier in the Indus River region on India's northwestern border. In 1826 Charles Masson visited the site of Harappa and based on the ancient ruins there identified it as the site where Alexander defeated Porus in the 4th century BCE. Another traveller Alexander Burns also visited the Harappan site. Alexander Cunningham, the first Director General of the Department of Archaeology, conducted small-scale excavations. In 1924, under the leadership of John Marshall, the discovery of the ancient civilization of India was published to the world for the first time. The extent of this civilization was so vast that it included the valleys of the Indus River and the Saraswati River known as the Guptagamini. Hence this civilization is known as the 'Civilization of Indus-Saraswati Rivers'.

Town Planning

Two or more divisions can be seen in Harappan towns. The western parts are smaller, but elevated. Archaeologists call it fort. The eastern parts are generally wide and low-lying. They are called villages. Every division had a wall of burnt clay bricks constructed around it. The bricks were laid in an inter-locking fashion which had ensured that such walls were stronger. The usage of burnt clay bricks indicates the advancement of civilization.

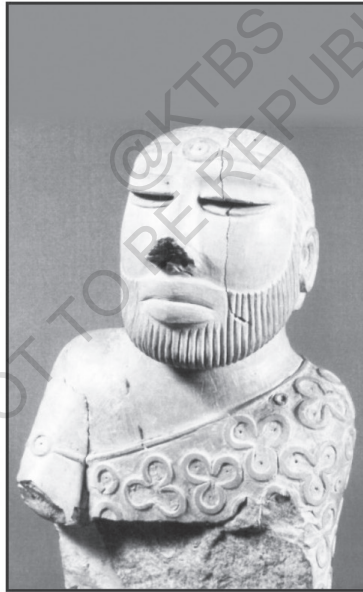
A ground-level tank can be seen constructed in another town Mohenjo-Daro. The experts have identified it as an open bath built with bricks and precautions were taken to ensure the structure was leak-proof. Stairs are located at two sides of the tank which has rooms built all around. Perhaps, the water to this tank was supplied from a nearby well, and the water was drained out after usage. Prominent people of the town would be bathing in this bath, it is presumed.



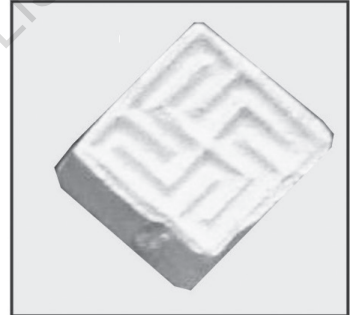
Public bath at Mohenjo-Daro



Bronze Dancing Doll



Torso of a man



Swastik Sun Seal



Sindhu Script

Fire places are found in the towns of Kalibangan and Lothal. Well-arranged granaries can be seen in Harappa, Mohenjo-Daro and Lothal.

The low-lying space – the village – was the habitat part of the town. They were planned and built quite systematically – well planned

houses, roads and drains can be seen there. The houses were built with bricks and walls were strong; generally, the houses were of one or two storeys. The inner core space had rooms surrounding it. The doors faced the street; None of the windows were street-facing, though. The houses had baths, some with wells for water supply. Water availability was abundant. Every household having its own bath was a big thing back then. Such information shows that the Sindhu-Sarasvati civilization population led a prosperous life.

Towns had internal drainage systems, the drains of which were built with bricks and covered with stone slabs. The drains of houses were connected to the external drains. Domestic grey and black waters were led into the external drains through these connecting drains. Cover slabs had holes to enable regular maintenance. It is understood that separate officers were appointed for maintenance. The drainage system alone shows how superior the systematic thought process of the then town-planners, grievance-less execution and maintenance, and interest towards civil responsibilities.

Such well-equipped town construction is not seen in Egypt, Mesopotamia and other civilizations. Even in terms of physical expanse, the Sindhu-Sarasvati civilization was more advanced and bigger than the contemporary ones.

From nomadic life towards village settlement

After the nomadic life stabilized, hut and houses were built traces of which can still be seen. Pit houses are found in Burzahom, Kashmir. Those people used to build bore holes in the ground and live underground to save themselves from harsh cold and wild animals. The underground bunker used to have steps for access. Clay pots are found inside and outside such bunkers. These were used for cooking either inside or outside the bunker based on the weather.

Mehrgarh is situated on the way to Iran, near the fertile plains of Bolan pass. People here cultivated barley and wheat and raised sheep and goats. Mehrgarh is the first of the villages found from this era. The people here used to live in well built houses, some of which had four or more rooms. Apart from fossils of animals, many graves are also found. It appears that animals were also buried along with humans.

Cultural details



**Mother Goddess
Teracota Idol**

Apart from the buildings, the artefacts found are mostly metal and precious stones. Beads and seals are found in large quantities. Harappan beads had demand even in distant Mesopotamia. The technique of drilling a diametrical hole through a bead was well practised by Harappans. Pots with various designs are also found. Bangles made of metals and shell material are found in abundance along with female figurines adorning them in different patterns.



**Shivling found at
Kalibangan**

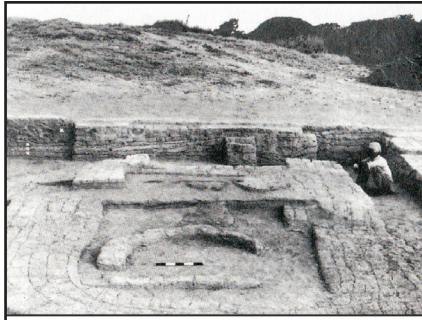


Seals of Pashupati, Bull and Unicorn

The seals of this civilization still show an undeciphered script. The scholar called this script 'Picture Script'. Vrushabha (bull) is one of the most important figures found on seals of those times with the leaf of the sacred fig (peepal or ashvattha) tree being another prominent figure on the seals. Several idols with different yoga and namaskara postures are also seen.

Weavers used to work with cotton, sometimes even silk. There were artists who worked on stones, ivory and such materials. Woollen

blankets, wooden furniture, articles that enhanced the beauty of the buildings were in vogue. Bronze has been one of the important alloys found in ancient civilizations. The copper needed to create the alloy was available in Baluchistan, Rajasthan, etc. From this they created several items from hard tools to mirrors.



Fire altar at Banavaali

Literature, music, dance, painting, sculpture and other art forms were well established. Female figurines in dancing posture, drum and string instrument sculptures, several varieties of masks obtained during the excavations confirm their deep interest in art. The famous dancing female figurine obtained in Mohenjo-daro.

Farming and trading

Sindhu-Sarasvati population was dependent on farming and trading. Wheat, barley and pulses were their primary crops. Hunting and fishing were also vastly practised. Cotton farming was done to manufacture textiles. They were involved in rearing cattle including bull, cow, buffalo and sheep, goat and poultry. Oxen were used to plough the fields. Commerce and trading were equally important to them. Urban centres used to trade with countryside and foreign nations –Baluchistan, Sourashtra and Deccan regions were prominent among them. Several seals found in Mesopotamia indicates the close ties that existed between the Sindhu-Sarasvati and Mesopotamian civilizations.

A huge construction is found in Lothal, Gujarat which is most probably a ship dockyard. Lothal was their important centre of sea trade. Dholavira had best practices of rain water management.

It goes on to show how advanced the Harappan or Sindhu-Saraswati Civilization was.

The decline

About 4000 years ago this civilization started to decline. Historians have ascribed several reasons for the decline of urban centres. Some claim, the drying up of rivers, drastic change in their course could be

the reason; some others feel loss of forests could be reasons, because of long-term flooding of the region, which could also have forced the population from sites along Sindhu and in Western Punjab to migrate Eastwards and towards the South. However, the civilization continued until much later in Lothal, Gujarat.

Thus the Harappan or Sindhu-Saraswati Civilization was an important part of early Indian History.

Vedic Civilization

Historic period of India starts from vedic civilization. This period is identified as the period between 1500 BCE and 700 BCE. It is classified as Early Vedic or Rigvedic period and Later Vedic period (Yajurveda, Samaveda, and Atharvaveda) The word 'Veda' is derived from the word 'Vid' which means knowledge.

Vedic Culture

RigVeda is the first among all the Vedas. It has 1028 Sukthas and 10 Mandalas. It contains Nature, God / Goddess, Sukthas. The persons who recite (Hymns) are known as 'Hothris'.

Social, Religious, Political and Economic system during Vedic Period :

Pre Vedic Period : Purushasukta that appears in the tenth mandala of RigVeda refers to the varna system in society. There were four varnas - existed in the society. They were Brahmanas, Kshatriyas, Vyshyas and Shudras. The varnas were decided on the basis of profession, not by birth. Women had equal status in the society. King was termed as 'Rajan' The king was assisted by Sabha, Samiti and Vidata. Widow marriage was in practice. The main occupation was animal husbandry and farming.

Post Vedic Period : A person's caste was determined by birth. The caste system became more complex. Women did not have equal status in society. During this period they used to do Yajnas and Yagas. 'Vidat' disappeared. Widow marriage system was banned. Dowry system, Parda system, and Child marriage came into existence. Agriculture became the main occupation rather than hunting and animal husbandry.

EXERCISES

I. Fill in the blanks with suitable words :

1. The scholars called the script on the seals of Sindhu - Saraswati Civilization as _____.
2. The important centre of sea trade during Sindhu - Saraswati Civilization was _____.
3. The place which had the best practice of Rain water management during this civilization _____.

II Answer the following questions in brief :

4. How were the baths constructed during Sindhu - Saraswati civilization?
5. How was the township construction done in Sindhu-Saraswati civilization?
6. List out the traces found to know about the cultural details of Sindhu - Saraswati Civilization.
7. Explain the economic condition during Sindhu - Saraswati Civilization.
8. Analyse the social, political, religious and economic system of Pre-Vedic and Post Vedic period.

III. Activities.

1. Locate the important sites of Sindhu - Saraswati Civilization in the World Map.
2. Collect more information about Vedic Culture.



CHAPTER-4

PROMINENT CIVILIZATIONS OF THE WORLD



After studying this chapter you learn :

- The great civilizations of the world - Egypt, Mesopotamia and China.
- Art, architecture and lifestyle of different civilizations.
- The development of Greek civilization and their contributions to world culture.
- The development of Roman civilization and their contributions.
- Ancient columbian civilization in America Maya, Aztecs and Inca.

Many other civilizations flourished in various parts of the world at the time of Indus Valley Civilization. We can see the Egyptian civilization, Mesopotamian civilization and Chinese civilization in Asia and Africa.

The Egyptian Civilization

Generally all civilizations have originated in river valleys. The Egyptian civilization could take birth due to the presence of the river Nile. The relics obtained here reveal the grandeur of Egypt. Huge pyramids, sculptures, temples and the inscriptions in these temples tell us a lot about Egyptian culture and history.

The Contribution of Egyptians

The Egyptians were expert farmers. They knew a lot about irrigation. They had built temples. They invented the calendar which has helped us to measure time. More than anything else, they had mastered the art of writing. It was a symbolic language. It consists of small drawings and has been called hieroglyphics (sacred writings).

The Nile Valley

In every rainy season, the Nile river would transform the Nile valley into a huge lake. After the valley dried up in summer, a fertile layer of clay soil would form the grazing field and adjacent agricultural lands. The work that would need the labour of hundreds of people, was being done by the kind river all alone. This fertile land provided food for the population of the first town in the area. Not all agricultural regions were within the valley. Hence it was through small canals and wells that they were responsible for the development of a complex system of irrigation throughout the land.

The prosperous, wealthy Egyptian peasants and citizens in their leisure engaged themselves in the creation of artistic works. The role of priest was created to interpret nature and explain it. The priests were scholars and shoulder the responsibility of protecting written documents. They believed in life after death. They believed that man had to give an account of his deeds on earth to Osiris, the most powerful God of Life after Death. The priests considered that life on earth was temporary and was needed only to prepare for the next life. Thus the whole of the Nile valley was reserved for the dead. The dead body would be smeared with various chemicals and wrapped with a thin cloth. The entire body was in this way preserved. The body protected thus was called 'mummy'. It would be kept in a specially designed coffin. The grave was considered the true 'place' for an Egyptian. Hence all around the dead body, items needed for daily use and small dolls of a cook and barber would be kept to fulfil all future needs.



Pyramid

In the beginning, graves were created by carving into boulders on the hills. As the Egyptians moved north, they had to construct graves in the desert itself. Tall towers were built on these graves using huge blocks of stone in order to protect the eternal

sleep of the dead. Kings and wealthy people vied with each other to build taller and taller towers.

The Greeks called these structures 'Pyramids'. The kings of Egypt were called 'Pharaohs'. 'Pharaoh' means 'a person who lives in a palatial house'. The peasants who had accepted the rule of powerful Osiris, now accepted the rule of Pharaohs too.

After an independent, prosperous life for twenty centuries, Egypt was ruled over by an Arabian shepherd tribe called Hyksos which attacked it and after defeating it, ruled for 500 years. They looted the wealth of the natives, and hence did not become popular. The Jews who came wandering through the deserts in search of shelter were also hated by the people of Egypt. By co-operating with the foreign rule the Jews even assisted them in collecting taxes and in administration.

In 1700 B.C.E. the people of Thebes rose in revolt against the foreigners. After a prolonged conflict, they succeeded in driving Hyksos out of their country. Egypt became free once again. After a thousand years, it came under the rule of Sardanapalus of Assyria.

The Persian Emperor Cambyses occupied Egypt in the 6th Century B.C.E. Alexander occupied Persia in the 4th Century B.C.E. Egypt

became a province of Macedonia. One of Alexander's military generals declared himself the King of Egypt and established the dynasty of the Ptolemies. He founded the city of Alexandria. At last came the Romans in 39 B.C.E. The last Egyptian queen, Cleopatra, tried her best to save her country. It was said that the Romans feared her beauty more than her troops. However, in 30 B.C.E., Caesar's successor, his relative, Augustus, did not succumb to her beauty like his uncle, but defeated her army, though he spared her life. When he planned to carry her away along with the other spoils of the battle, Cleopatra consumed poison and ended her life. From then onwards, Egypt became a province of Rome.

The Mesopotamian Civilization

Mesopotamia is an area which lies in a valley between two rivers. Many of the places described in the Old Testament can be seen here. The land which inspires awe and fascination is called the 'Land between the rivers' or 'Mesopotamia' by the Greeks. The two rivers, Euphrates and Tigris, have made this West Asian barren land very fertile. It was the fertility of this area that attracted the people to it. Since food crops could be grown with little effort, the northern hilly tribes and the southern nomadic tribes of the desert tried to establish control over this area. The rivalry between these tribes led to number of endless conflicts. However, in the midst of these conflicts, there emerged a civilization of strong and brave race. The Sumerians were the first ones to evolve a system of writing in Mesopotamia. For 30 centuries all those who entered the fertile valley – Sumerians, Babylonians, Assyrians and Chaldeans – used this system of writing, which was called Cuneiform.

The most important area of this civilization was the southern part of the valley between the Euphrates and Tigris rivers. From olden

times, this area had been referred to as Babylonia. The northern part of Babylonia was called Akhad and the southern part Sumer. The northern part of Mesopotamia was known as Assyria.

The Hanging Gardens of Babylonia

The legendary Hanging Gardens were created on the banks of the river Euphrates around 7th Century B.C.E. This was one of the seven wonders of the Old World. But it is surprising to note that the Babylonian cuneiform records which make a mention of the city, its palaces and its walls, are totally silent about the Hanging Gardens. Most of the scholars are of the view that King Nebuchadnezzar II was the one who created the gardens.

Nebuchadnezzar's wife Amitis was from Mead. It is said that Nebuchadnezzar got the gardens built in order to console his wife who was missing the beautiful environment of hills, trees and flowers of her motherland. Some scholars opine that the gardens were created by Assyrian queen Sammu-Ramat. In reality, the gardens did not hang in the air. The trees and bushes were grown at different levels (or terraced land) of the ziggurats. When the branches hung at different levels and swayed, they gave the onlooker an impression of being a hanging garden. The Euphrates provided the water for these gardens.

The history of Mesopotamia is a story of end less hatred and conflict. The Sumerians, the hilly tribe from the north, were the first to come here. They who used to worship their gods on top of the hills, after coming to the plains, built artificial hills and established their places of worship there. These were called Ziggurat. The Jews called these the Towers of Babel.



Ziggurat

The Law Codes of Hammurabi

The main source of the law codes of Hammurabi are the rock edicts found in 1901. Today this has been kept in 'The Louvre' museum of Paris. Hammurabi's law enforced the logic of 'An eye for an eye and a tooth for a tooth'. Hammurabi's Law Codes are one among the most ancient of the codes available to us. They were probably written to protect the rights of all sections of Babylonian society, especially women and slaves.

The Sumerians had entered Mesopotamia in 4000 B.C.E. Later they were overpowered by the Akkadians, one of the tribes of the Arabian desert. These are known as Semites. After a thousand years, these Akkadians came to be ruled over by the Amorites, another Semitic tribe. The most famous king of the Amorites was Hammurabi. He had built a fabulous palace for himself in Babylonia. He framed the codes of justice and made Babylonia to be considered the best-administered kingdom in the whole of the Old World. The Hittites who came later, occupied the valley and destroyed all that they could not carry away. These Hittites were defeated by the Assyrians who were the followers of 'Ashura', the desert God. The Assyrians occupied the whole of West Asia and Egypt till about 7th Century B.C.E., and

collected taxes from all the people there Another Semitic tribe, the Chaldeans, re-established Babylonia in the 7th Century B.C.E. and developed it into a prominent capital of that time. Nebuchadnezzar was the greatest king among them. He encouraged the study of science. But the Chaldeans came under the attack of the Persians in the 6th Century B.C.E. Two hundred years later, Alexander transformed this place of the Semitic peoples into a Greek province. After the rulers of the Romans and Turks who followed Alexander, this civilization declined and turned into a wilderness.

The Chinese Civilization

It is a special feature of all ancient civilizations that they were established on river valleys. The Chinese civilization was no exception to this. But the river which led to the establishment of the Chinese civilization was known as 'China's Sorrow'. This was the Hwang Ho river. During the floods this river changed its course in an unpredictable manner and inundated houses and agricultural lands. It would render all the canals useless. This was the reason the people of that area referred to it as the 'Symbol of Sorrow'.

According to excavations, the first ruling family of the Chinese civilization was the Shang dynasty. It ruled in the period between the 18th century B.C.E. and the 12th century B.C.E. Under the rule of this dynasty, the people had developed a wonderful culture by the 14th century B.C.E. The Shang dynasty was overpowered by the neighbouring Chau dynasty. The Chau dynasty continued the good traditions of the Shang culture and ruled till 250 B.C.E.

In the Chau dynasty there was a section of officials below the kings. The king allotted portions of land to the officials. In return for that, the officials supported the king during battles. In the social stratification, the communities in the next level were the merchants

and craftsmen. Apart from them we can find a great majority of peasants as well. In the lowest strata of social hierarchy were the slaves. The prisoners of war were made slaves by the kings.

The Great Wall of China



The Chinese Empire consisted of many small provinces. Seven big states were created bringing these smaller provinces under them. Every state that was created thus, constructed a wall along its boundary for protection. Emperor Qin Shihuangti ordered that the walls of the northern chinese states be connected. This enabled the northern walls to ward off the attacks of invaders from the north. The construction of the great wall began in the 7th century B.C.E. and continued till the 16th century C.E. The worn-out parts were repaired and strengthened. When the work was completed it stretched to more than 5000 kilometers. It is one of the seven wonders of the world.

The Shang kings spent quite an amount of time in conquests and battles. Hence the army was in prominence. The soldier enjoyed a dignified place in society. Soldiers wore bronze helmets and metal armours. The bronze daggers, axes, bows and iron-tipped arrows which they used have been found. The people of the Shang dynasty depended on agriculture. They had a well-organized system of irrigation. They used to grow plenty of rice.

Porcelain

It is believed that porcelain originated in China. Semi-porcelain objects were in use from 1600 B.C.E. By the time of the reign of the Han dynasty (200 B.C.E.), glazed porcelain had been developed. It had developed into an exotic art. The ancient Chinese used to bury their dead along with porcelain pots, animals and the objects loved most during their lives.

The Chinese used to wear thin cotton dresses. They used silk too, and engaged in silkworm-rearing. Silk- manufacturing was a prominent industry. The Chinese used to make excellent pots, and had learnt to make various objects from porcelain. It was a custom of the Chinese to worship their ancestors. They believed that a dead man became a spirit and that the spirit had special powers. The dead body was buried along with various wooden articles, pots, bronze vessels and other objects. The tombs of kings used to be quite large. The Chinese tradition of writing began with pictures and got transformed into an ideographic script by writing on silk and bamboo slips. Porcelain and the Great Wall are the exceptional contributions of this culture.

Greek Civilization

The Greeks came from the north to the region of the Aegean sea. These tribals who were mainly shepherds, came in search of grasslands. Every group which came in this manner had a distinctive

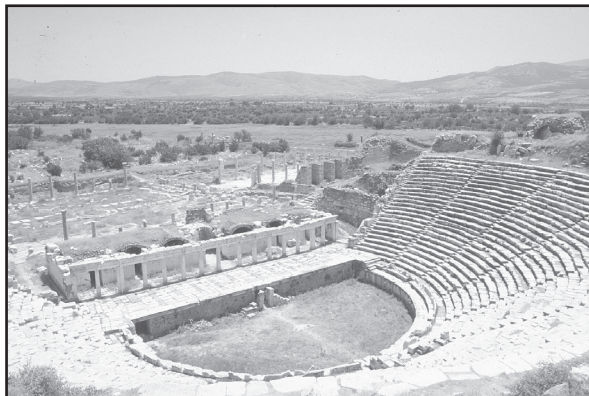
name: the Achaeans, the Ionians and the Dorians. These people called themselves Hellenese or the Greeks. The Greeks originally belonged to tribes. There used to be a king looking after many tribes. The people used to engage in agriculture and animal-husbandry. They also used to engage in making pots, swords and ornaments. Trade was through a barter system. Battles and conquests formed adventurous activities of their lives. The Greeks believed that their Gods lived on Mount Olympus. They prayed for good harvests and success in their various activities. There were no priests among the Greeks. The king prayed on behalf of all the people.

Alexander

He was the king of Macedonia in Greece. In his short lived life, he set out to conquer the whole world. He was successful in building a huge empire. He defeated the Persian army and advanced towards India. Aristotle, one of the greatest scholars of Greece, was his teacher. After fighting on the Indian borders while on his return to Greece, Alexander died at Babylonia in 323 B.C.E.

Slavery was practised in Greece. This enabled the Greeks to enjoy leisure time and engage in various arts and luxury. Their Olympic Games were popular games played once every four years. Importance was given to different arts in Greece.

Roman Civilization



Amphitheatre

We can see the relics of ancient Roman civilization in present-day Italy. The original inhabitants of Italy were the people of North Africa, Spain and France. They migrated to Italy around 4000 years ago. After some

time, the Greeks and Etruscans came and settled here. The Italians are the descendants of these people. The Italians learnt the language, religious beliefs and art from the Greeks.

Rome was under the rule of a monarchy. The Roman's had 'Assembly' and a 'Senate', as two political advisory institutions. The Assembly was made up of all middle-aged men, whereas the Senate was an elite institution which was very influential. The Senate had the power to reject the proposals of the Assembly and the king. In the 6th century B.C.E., monarchy was abolished and a republic was established. Around the 3rd century B.C.E. the administration of the whole of Italy came under the republican states. Even under the Roman republic, the Senate and the Assembly continued as advisory institutions. The members of these institutions headed the armies during war. They enforced the law and dispensed justice.

There were two classes in Roman society: the Patricians and the Plebeians. The Patricians were the elite in society. They were land-owners and formed the upper class. It is they who controlled the Senate. The Plebeians were the common people. They were ordinary workers, small land-owners, artisans, small traders and soldiers. Their rights were limited. They were meant to pay taxes, and to undergo punishment. The decisions taken by the Council and the Senate regarding the Plebeians could be rejected by the Tribunes. In the 5th century B.C.E the Plebeians rebelled against this system. As a result, the Patricians granted them some concessions. Thus the Plebeians got the right to choose the members of the Tribunes. It was around this time that a rule-based on 'Roman law' was established. This provided awareness over their rights and learnt to oppose the violation of their rights.

A desire for expansion exposed the Romans into newer conflicts. Hence they battled with Carthage, a coastal town in North Africa. Sicily was a fertile area. The Romans fought for control of this area

for 118 years. These wars are referred to as the 'Punic Wars'. The Carthagens were defeated in this war. By early 1st century B.C.E., the Romans had conquered Greece, parts of Asia and Egypt.

Gladiator

The wrestlers of ancient Rome were called Gladiators. There were both expert and amateur wrestlers among them. The fights were organised to entertain the 'civilized' spectators. These fights which were fought between human beings, and sometimes between human beings and animals, ended in gruesome deaths of the participants. The place where the combat between the gladiators were fought was called 'Amphitheatre' and 'Colosseum'. Criminals, slaves and prisoners-of-war who had lost their citizenship rights were taken as gladiators. Gladiators on acquiring fame and wealth were sometimes given freedom. Recently, a film titled 'Gladiator' has become famous world-wide.

Conquests and victories had enabled Rome to acquire vast wealth and riches. Rome won over a lot of gold and innumerable slaves. Rome not only had Patricians and Plebeians but also had slaves. The slaves did not have the rights of citizenship. They were the private property of their owners. Slaves were also sold. There were instances when the slaves secured their freedom under special conditions. The Romans who had immersed themselves in status egos used the slaves as gladiators. They were amused at the combat of the gladiators from the amphitheatre. A majority of the slaves and prisoners lost their lives in such games.

Over a period of time the chaos engulfed the Roman state. Now rebellions and assassinations took place. Bribery and corruption during elections became the order of the day. At this juncture, around 60,000 poor and exploited slaves rose in rebellion under the leadership of Spartacus. One year after their struggle they were ruthlessly suppressed. Around 60,000 people were crucified at this time.

The Generals on account of continual wars reduced the authority of the senate to insignificance. Pompey and Julius Caesar are prominent among the hundreds of such military generals. These two vied with each other and finally Caesar emerged victorious against Pompey and tried to become a dictator. The result was that Brutus and his associates assassinated Caesar in the premises of the Senate. Later on, the authority was passed on to Julius Caesar's nephew, Octavius. He took revenge against those who conspired in the killing of Caesar. With Octavius, the republican form of government came to an end. Octavius ruled under the title Augustus. He called himself 'Princep' too. 'Princep' meant 'The First Citizen of the State'. He introduced many reforms and ruled for 44 years. The kings who came after Augustus were dictators. The Senate lost all its power. The king assumed supreme power and became a dictator. From here onwards, we see the decline of Rome.

Each culture is responsible for the development of its language. The Roman reign was responsible for the development of the Latin language and literature. Rome also gave rise to distinct architecture. The Pantheon is a temple, whereas the Colosseum is an auditorium. Roman sculpture has been inspired by the Greeks, and is full of life. On account of the birth of Jesus Christ and the religion that he preached, Rome acquired prominence.

The American Civilizations

Maya, Aztec and Inca are the ancient Columbian civilizations of the American Continent. They represent the culture of the Indian aborigines of America. The ancient Columbian civilizations of America are distinct and special like the civilizations of the old world like the Egyptian, the Mesopotamian and the Chinese civilizations. We can

see states, kingdoms, amazing monuments, cities, art, metallurgy and the practice of writing in the civilizations of the new world too.

Maya Civilization

The American-Indian aborigines of Yucatan area of Mexico are called the Mayas. Their

language is called Yucutec. Physically, the Mayas were short, brown complexioned, long-haired and generally round-headed people. The Mayas were the most advanced among the ancient American Indians. The ruins of cities built of stone have been obtained in Yucatan of Mexico, Guatemala and Honduras. This civilization emerged to significance around 1700 years ago. The earliest cities were built around 320 C.E. We see the degradation of Mayan culture with the attack of Spain from 1527 C.E to 1546 C.E under the leadership of Cortes. A few descendants of Mayan Indians who survived these attacks can be seen even today in the Northern areas of Yucatan and Guatemala.

The Aztecs

Texcoco is a lake in Mexico. The Aztecs built their city on an island in this lake. They are called Tenochca, a name derived from their legendary ancestor Tenoch. Their city was called Tenochtitlan (the stone rising in the water). The city has also been called Mexica, and its inhabitants were also known by the same name. Their language was Nahuatl. Even today there are people who speak Nahuatl in Mexico.

Do you Know this ?

The countries of Medieval Europe discovered new continents in their attempts to find out a new sea-route to India. America and Australia thus discovered were misunderstood as India and their inhabitants were called Indians. Thus, the aborigines of America and Australia came to be called Indians. In later history, the familiar countries came to be known as the Old World and the newly discovered continents as the New World.

Barring the Incas of Peru, there has been no one in the New World who has had an Empire like the Aztecs. It is the incredible story of a small wandering tribe that built and ruled an empire within the span of only one century. But its fall was equally rapid. Its rapid rise and fall have been recorded in its oral literature and can be understood from the excavations too. The Aztec oral literature has been translated by the Spanish historians and Social scientists. These have been called the Indian codices.

When the Spanish army entered the Mexican valley in 1519 C.E., they spotted the beautiful city on the island in a lake. That city was Tenochtitlan, the capital of the Aztecs, which had grown to symbolize their wealth and power. As the Spanish stepped into the city, they saw three wide roads. One of them led to the palace, the second led to the ornate temple and the third led to the pyramids. All these came under the Spanish conquest.

Inca

The Inca empire which flourished during the 15th and 16th centuries spread in the areas of Peru, Ecuador, Chile and Argentina.

The talent of the Incas can be seen more in their organizational ability than in their artistic interests. The palace on the island in Lake Titicaca and the Moon Temple are two famous buildings of the Incas.

The Incas had developed new ways of making pots, cloth and in working with metals. Creation of gold jewellery had progressed very well in parts of North Peru. The chest shields, pictures of the Sun in the temple, and the designs on the gold ornaments of the palace are a testimony to their creative craftsmanship in gold work.

The Sun God was the most important deity of the Incas. They believed that God Veerakocha was responsible for all creation. According to them, the Sun God was the link between the people and God

Veerakocha. This was the reason that there was a Sun Temple in all Inca centres. They worshipped objects of nature like the Moon, the Stars and lightning, and prayed to other natural phenomena.

Please note : B.C.E Refers to Before Common Era. Wherever B.C.E is not mentioned it should be considered as C.E (Common Era).

EXERCISES

I. Fill in the blanks with suitable words :

1. The writings of Egyptian Civilization are called _____.
2. The kings who ruled Egypt are called _____.
3. The Greeks referred to Mesopotamia as _____.
4. The most famous king of the Amorites is _____.
5. 'Princep' means _____.
6. The language of the Romans is _____.
7. Texcoco is a _____ in Mexico.
8. The important deity of the Incas was _____.

II Match the following :

A

- i. Hwang River
- ii. Cuneiform
- iii. Cleopatra
- iv. Hammurabi
- v. Chinese dynasty

B

- a Mesopotamia
- b King of the Amorites
- c Shang
- d China
- e the last Egyptian queen

III Answer the following questions in brief :

9. Which are the civilizations of ancient Columbia?
10. Who are the 'Mayas'?
11. How are 'mummies' preserved?
12. Write a paragraph on the Pyramids.
13. How was 'Hwangho River' China's sorrow?

IV Activities :

1. Learn about the life history of the Greek philosophers from your teacher.
2. Study and watch Shakesphere's drama Julius Ceasar.
3. Collect information about the Nile river.

CHAPTER-5

SANATANA DHARMA



After studying this chapter you learn :

- Meaning and scope of Sanatana Dharma.
- The uniqueness of Indian culture.
- Fostering Unity in Diversity.

You would have heard this verse:

Om Sarve bhavantu sukhinah
Sarve santu niraamayah
Sarve bhadrani pashyantu
Ma kaschit duhkha bhaagbhavet
Om Shantih Shantih Shantihi

What does it mean? It means,
'May all be happy;
may all be free from worries and diseases;
may everyone see only goodness;
may no one be sad;
may all the living things in this world (ever) always have peace,
prosperity, happiness'.

Such benevolent thoughts are the foundation stones of Sanatana Dharma. The word 'Sanatana' means 'most ancient' and it also stands for 'ever new'; which means everlasting, eternal. Sanatana Dharma was born and flourished in India. Today, this has been understood as Hindu Religion.

Sources of Sanatana Dharma

1) Shrutis

Vedas are the main sources of Sanatana Dharma. The word 'Veda' means knowledge. The Vedas are the most ancient and important

texts of the ancient religious literature of India. The Vedas are called 'Shrutis', as this knowledge is heard and learned by the sages. This knowledge has been passed on through the tradition of Guru-Shishya, without the help of a script.

The abundant knowledge of the Vedas available in the ancient times could not be learned or taught to the student in one's lifetime. So sage Krishnadwaipayana categorized the immeasurable cluster of Vedas ('Vyasa' in Sanskrit also means to classify) and hence he was also called 'Vedavyasa' (the one who classified the Vedas). The four Vedas available today are Rigveda, Yajurveda, Samaveda, and Atharvanaveda. Each Veda again has four 'skandas' or divisions. They are:

- 1. Samhitha :** These are mantras, praising the natural elements after giving them human embodiment. These are mentioned with different poetical metres. The *samhitas* also contain hymns of different deities.
- 2. Bramhana :** It is the part of the Vedas which deals with the ritualistic methods of performing the yagnas. It is mostly written in the form of prose.
- 3. Aaranyaka :** It is the part of the Vedas which gives interpretations of the stotras and yagnas.
- 4. Upanishad :** They are the philosophical discussions between Guru-Shishya about the creation, the creator of the universe and the existence of human beings.

The Upanishads have a special importance amongst the four parts of the Vedas. If Samhitas, Brahmanas and the Aaranyakas give importance to Karma, Upanishads however are concerned with knowledge. It removes the ignorance of man and propounds true, other worldly knowledge. For eg. this sloka from Brihadaaranyaka Upanishad :

Om Asatoma sadgamaya
Tamasoma jyotirgamaya
Mrityorma amritam gamaya
Om Shantih Shantih Shantihi

The message of this noble, thoughtful prayer is

Lead from ignorance to truth, from darkness to light, from death to immortality. Om peace peace peace.

This prayer is a great thought and a desire to create a life beyond all narrow mindedness.

2. Smritis -

Smriti means that which is remembered. These works of the post- Vedic period are called Smritis because they are reminiscent of the Vedas and the Upanishads. These are also called Dharmasutras, manuals on Dharma, because they give the rules of everyday life, the rules to lead a worldly life, its ethics and etiquette and the rules of good character and conduct. Though there are eighteen Smritis, the most ancient and influential among them is the Manusmriti. Although it has been revered as a Doctrinal text of the Sanatana Dharma for nearly two thousand years, no one today would ever accept the hierarchical world view it advocates. Rather, our Constitution is the highly regarded foundational text of our social outlook.

Traditionally along with Dharmasutras, the Smritis corpus also includes Vedanga , Purana, Itihaasa and Darshanas.

Vedangas -

Vedangas are the auxiliary disciplines to understand the Vedas, its pronunciation and practice. They are Siksha (phonetics), Chandas (prosody), Vyakaran (grammar), Nirukta (etymology), Jyotishya (astrology) and Kalpa (religious practices). All Vedangas have the tradition and history of teachers and the taught.

Itihasa and Puranas

Ramayana and Mahabharata are the two great epics of India. These epics contain numerous discussions, stories and sub-stories

which answer our questions with regard to moral and religious practices. Even to this day, these epics are the guiding lights for good values. Ramayana and Mahabharata have been re-told in many ways in the Indian languages. The eighteen puranas and equal number of upapuranas, contain stories of devatas, genealogy of kings, the rules and rituals of worship and instructions and guidelines to worship.

Darshanas

Darshanas are the pillars of Indian philosophy. The six major Darshanas are Nyaya, Vaisesika, Saankhya, Yoga, Purva Mimamsa and Uttara Mimamsa. These are classified into two broad groups- the Asthika group and the Nasthika group. The Asthika group accepts the authority of the Vedas, whereas the Nasthika group does not accept their authority. Jainism, Buddhism and Charvaka are non-Vedic nasthika groups of Darshanas while the rest are Asthika Darshanas.

Worship of idols :

In the Vedas, Brahma is considered dualistically as- Saguna and Nirguna. Having Nama (name) Roopa (form) is Saguna and having no name and form is Nirguna. The worship of deities bearing names and forms is found in the Vedas itself. Agama Sahitya which accepted Vedas and grew into a theistic branch gave scope to the worship of idols. Vaishnava, Shaiva and Shaakta are the three major schools of 'Agama traditions'.

Consisting of such vast and diverse sources, Sanatana Dharma basically accepts pluralism in principle. It rewards diversity and permits differences of opinions. 'Aano bhadrah kratavo yantu vishwatah', a Vedic chant which means 'Let good things flow to us from all sides of the universe' is the aim of Sanathana Dharma.

The following words of Swami Vivekananda, from his lecture on the last day of the Chicago Parliament of Religions (dated 27/ 09 / 1893), have always been and should be worth emulating for all religions: "Help and not fight; Assimilation and not destruction; Harmony and peace and not dissention".

EXERCISES

I. Fill in the blanks with suitable words :

1. The meaning of the word Veda is _____ .
2. Most of the Upanishads are in the form of _____ .
3. The auxiliary disciplines to understand the vedas, its pronunciation and practice are _____ .
4. The great epics of India are _____ and _____ .
5. The pillars of Indian philosophy are to _____ .

II Answer the following questions in brief :

6. Name the Vedas.
7. What are the four divisions (Skandas) of the Vedas?
8. What is Smriti? Why are they also called Dharmasutras?
9. Which are the important Darshanas?
10. How many major schools of 'Agama traditions' are there?
11. What is the message of the 'Sanatan Dharma'?

III Activities :

1. Listen to properly intonated Vedic chants. In which language are they composed? Collect information.
2. List out the values and messages written in the Upanishads.
3. Take the help of your teacher to know and collect at least five Shanti mantras and their meanings.

CHAPTER-6

JAINISM AND BUDDHISM



After studying this chapter you learn :

- The background for the rise of Jainism and Buddhism.
- The principles of Jainism and Buddhism.
- The spread of Jainism and Buddhism.

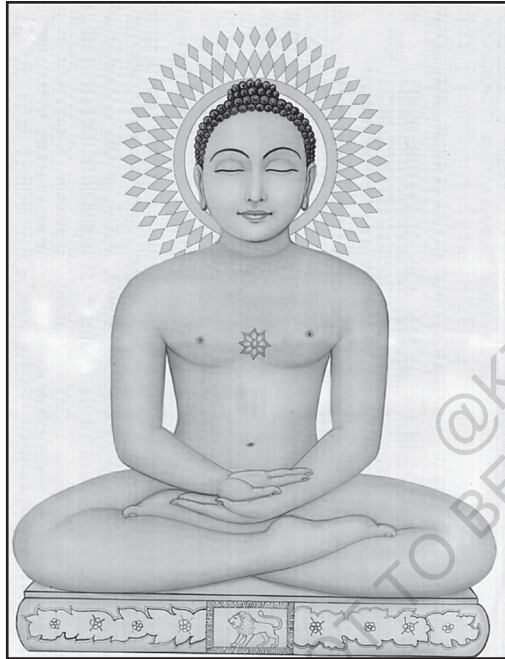
Background

India is a land of many cultures and religions. This diverse culture is nourished by various religions. Cultural diversity is the speciality of India. During the 6th century BCE, two new religions arose in the Gangetic Plains. They are Jainism and Buddhism. They propagated peace, non-violence, tolerance and other human values. The main reasons for the rise of these religions were the social, political and religious practices of those periods. Without any reasons there were no new developments in history. There are strong reasons behind all the phenomenon.

The background of the rise of Jainism and Buddhism can be seen in immobilized social strata. The system of varna made the life of shudra community very difficult. The shudras were considered as labour class and they were only the household laborers and skilled workers. The women and the shudras were considered profane. the agriculture based economy had changed. New cities had been grown. As the cities grown, traders became prominent. Another important change was the changing nature of administration. The 'Janapadas' and 'Mahajanapadas' in the Gangetic Plains are getting transformed into kingship. This background tells us how Jainism and Buddhism became popular. Because the new kings from Janapada communities, the traders and clan artisans gave strength to Jainism and Buddhism. Both the religions declared that desire is the root cause for the problems of human beings. They opposed accumulation of wealth, luxurious lifestyle and upheld simple pure family life. They preached their principles in Pali and Prakrit language instead Sanskrit. Jainism and Buddhism are considered as Shramanic Tradition.

Jainism

Jainism is one of the very ancient religions. Traditionally, the Jains believed in the existence of 24 Tirthankaras. Rishabhanatha was the first Tirthankara whereas Parswanatha was the 23 Tirthankara. Parswanatha was born as the son of King Aswasena in the 8th century B.C.E. It is believed that he renounced all luxury and indulgence, and attained immortality. He renounced society and became a hermit. He preached four principles for a peaceful life.



Vardhamana Mahaveera

The four principles preached by Parswanatha were :

1. Non-violence
2. Truth
3. Astheya (not to steal)
4. Aparigraha
(not to own property)

The fifth principle of Bramhacharya was taught by Vardhamana. He was the 24th Tirtankara.

Vardhamana Mahaveera (599 B.C.E - 527 B.C.E)

Vardhamana was born in Kundala grama in Vaishali, one of the republics. His father was Siddhartha, the king of the Gnatrika tribe. His mother was

Trishaladevi, the princess of the Republic of Licchavi.

At the age of 30 Vardhamana set out in search of truth and renounced his family and house. He wandered for 12 years in this quest, and meditated. He punished his body by fasting. At the age of 42, he achieved enlightenment (Kaivalya). Vardhamana controlled his senses and achieved power over comfort and pain. Due to this achievement, he came to be known as 'Mahaveera' and became a 'Jina'. A Jina was one who had overcome his senses and become victorious. Thus his followers came to be called Jains.

Mahaveera spent his last 30 years in preaching his knowledge to the people around the Ganga and Yamuna rivers. He travelled towards Western India preaching his thoughts. He attained nirvana in his 72nd year in Pavapuri of Bihar.

Mahaveera taught five vows and three principles of behaviour. The latter are called Triratnas.

The 5 vows are as follows :

- | | |
|-----------------|---------------|
| 1. Non-violence | 2. Truth |
| 3. Astheya | 4. Aparigraha |
| 5. Brahmacharya | |

The triratnas are as follows :

- | | | |
|---------------|------------------|-------------------|
| 1. Samyakgyan | 2. Samyakdarshan | 3. Samyakcharitra |
|---------------|------------------|-------------------|

Jainism does not reject the existence of God completely, yet it advocates atheism. It denies the role of God in the daily affairs of people. It places God at a lower level than Jina.

The Jains believe that every animate and inanimate thing possesses a soul. They also believe that it is only through purification of the soul that one can achieve freedom from rebirth and attain nirvana. Purification is possible through meditation, fasting, punishment of the body and thereby, destruction of the body. This process is known as sallekhana. The concept of Karma is a very important aspect of Jainism. According to this, a human being can attain salvation only through good and holy acts. To attain enlightenment, the soul had to achieve freedom from the bondage of the body.

Traditionally, we get to see two important sects among Jains called Swethambars and Digambars. Those saints and their followers who wear white clothes are called Swethambars, whereas those saints and their followers who do not wear any clothes are called Digambars. After the first Jain council, the preachings of Mahaveera were compiled in 12 volumes. These were called 12 angas by the Jains. They are in the Prakrit language.

Very early, one group of Jains migrated to the South due to the famine in Bihar, and settled down at Shravanabelagola. Thus even here, Jainism spread and many works were written in Kannada, Telugu and Tamil languages. The famous Kannada poets Pampa, Ranna, Janna and Ponna were Jains.

Buddhism



Goutam Buddha

Siddhartha who came to be known as Gautama Buddha was born in the 6th century B.C.E. His father Shuddodana was the king of the republic of Shakya. Renouncing royal luxury and familial pleasure, Siddhartha became a hermit. Disillusioned with the prevailing ways of life, he embarked upon a quest for truth. Attaining enlightenment, he became Buddha. After becoming Buddha, the 'Enlightened One', he first went to Sarnath near Banaras. There, in the deer park, he gave his first sermon. This has been called Dharma Chakra Pravarthana. Here he preached the Four Noble Truths and the Eightfold Path.

The Four Noble Truths are

- 1) The whole world is full of sorrows and suffering.
- 2) Desire is the main cause for sorrows.
- 3) Only by the liberation of excessive desires can peaceful life be led.
- 4) For eliminating desire one should follow the Eight Fold Path.

Eight Fold Path are called the Middle Path.

The Eight Fold Path :

- | | | |
|---------------------|-------------------|-----------------------|
| 1. Right Action | 2. Right Speech | 3. Right Vision |
| 4. Right Livelihood | 5. Right Effort | 6. Right Recollection |
| 7. Right Resolve | 8. Right Thought. | |

Followers of the New Religion

Wealthy merchants, artisans and common people were inspired by the new teachings. Buddha gave his messages in Prakrit, the language of the common man and related them to various aspects of their tradition. The atmosphere of the new cities changed the ways of life of the people. The new religions became a ray of hope in the changed circumstances. Buddhism, especially, took on a new role of transforming the lives of people.

Buddha and his followers visited Kosala, Magadha and many cities on the Gangetic plain and spread his messages there. They walked from one city to another and devoted their lives for others. In his 80th year, Buddha's glorious life of selfless service came to an end at Kushinagar. This has been called 'Mahapari nirvana'.



Sanchi Stupa

Viharas were constructed in all the areas in which Buddha wandered. People preserved his relics and bones in chaityalayas and stupas, and in memory of his accomplishments started worshipping him in chaityalayas and stupas. This was how the first temples, idols and idol-worship began.

Buddhism spread not only in India but also in foreign countries. Chinese travellers like Fa Hien, It Sing and Hiuen Tsang have described vividly the glory of Buddhism. Buddhism had spread to Malaya, Burma, Thailand, Vietnam, Cambodia, Sri Lanka and Bamiyan too. Boulders have been cut from mountains and shaped into statues of Buddha. Even today we can see gigantic statues of Buddha in Angkor Vat of Cambodia and Bamiyan of Afghanistan. Unfortunately, the huge statues of Buddha in Bamiyan came under attack and were destroyed in recent times.

In 1956, inspired by Buddha's teachings, India's prominent social philosopher and architect of the constitution, Baba Saheb Dr. B.R.Ambedkar embraced Buddhism.

After Buddha's death, his followers collected his teachings and tradition in the form of Tripitakas. These are Vinaya, Dhamma and Abhidhamma pitakas. Over a period of time, disagreements developed in the teachings and different branches of Buddhism sprang up. Thus Hinayana, Mahayana, Vajrayana and their sutras came into being. Today we see many organizations across the globe adopting different ways of realizing Buddha.

Foreign Invasions

During this period, there sprang up city-states in Greece. Ancient Persia had grown into a powerful empire. These two areas engaged in continual conflicts. The Akhimenians were one group who ruled Persia. In the 6th century B.C.E. King Darius of this dynasty established a strong empire. His kingdom extended up to the Indian border during his time. In the 4th century B.C.E. the Macedonian king Alexander won over the Greek city-states and captured Persia. Thus even the part of the Persian kingdom which had spread up to the Indian border, came under the control of Alexander. After overpowering Persia, Alexander entered India through the passes in Kandahar and Hindu Kush. He advanced till Ravi and Beas rivers, and unable to proceed further, he crossed the Indian border through river Jhelum, and on his way back home, he died at Babylonia.

The battle between Alexander and Paurava:

When Alexander accepted the invitation of Ambhi, the king of Taxila, and came to India, it was with Paurava that he had to confront. Paurava was also called Porus. The two armies faced each other on the banks of the river Jhelum which was flooded and wild at that time. Alexander's army attacked Paurava who had never expected anyone to cross the swollen river, and won. Alexander asked the captured Paurava how he desired to be treated. Paurava replied with pride and courage, "As one king deserves to be treated by another". Paurava's brave adventures have been immortalized in Greek writings. Alexander's attack led to the consolidation of small and big republics and the establishment of the Mauryan dynasty. The arrival of the Greeks influenced North Indian art and science. Proof of this influence can be found in the famous art form known as Gandhara art which existed at that time.

EXERCISES

I. Fill in the blanks with suitable words :

- 1 The first Jain Tirthankara was _____.
- 2 Vardhamana was born at _____.
- 3 Mahaveera attained _____ in his 42nd year.
- 4 Mahaveera attained Nirvana at _____ in his 72nd year.
- 5 The original name of Gautama Buddha was _____.
- 6 Buddha delivered his first sermon at _____.
- 7 The first sermon of Buddha is called _____.
- 8 Macedonian king who attacked India was _____.

II Answer the following questions in brief :

- 9 Which are the five Vows and Triratnas preached by Mahaveera?
- 10 Name the sects among the Jains.
- 11 Which are the four Noble Truths preached by Buddha?
- 12 What is the middle path?
- 13 Which are the Eight Fold Path preached by Buddha?
- 14 Write a note on the Tripitikas.

III Activities :

- 1 Collect information about the life of Mahaveera.
- 2 Collect pictures related to the life of Gautama Buddha.

POLITICAL SCIENCE

CHAPTER-7

MEANING AND IMPORTANCE OF POLITICAL SCIENCE



After studying this chapter you learn :

- Understand the concept of political science.
- Explain the process of development in political science.
- Know and recognise the political thinkers and their contributions.
- Know the importance of political science.

Meaning : Political science is one of the social sciences dealing with the political activities of man. It deals with the state and government. It is related to the origin and nature of the state and forms of political institutions. The study of state is the main subject matter of political science.

As a subject the study of political science began with the Greeks. Though Egyptians, Babylonians, Persians, Indians and Chinese have mentioned their ideas or thoughts about politics much earlier to Greeks they failed to develop it as a systematic study. Politics was given the status of an independent science by the Greeks.

Greek philosophers like Socrates and his disciple Plato were great political thinkers. Plato in his famous book “Republic” for the first time discussed the nature and functions of state and government. Aristotle, the ancient Greek thinker is recognized as the **‘Father of Political Science’** for his valuable contributions to its growth and development. He wrote the first book on political science called “The Politics”. In his famous book Aristotle discussed the origin, development and functions of state. Even Kautilya’s work on ‘Arthashastra’ also had more information about political principles.

Greeks used the term ‘politics’ for the study of state. The term ‘Politics’ is derived from the Greek word ‘polis’ which means ‘city-state’ and therefore a subject which deals with the affairs of city-state and its

working was called politics by ancient Greece. However scholars have preferred to use the term 'Political Science' for this study.

Now a days the word 'Politics' refers to the practical aspect of the problems of the state and government. The discipline of political science is a study of the origin and development of the state, the functions of government, rights and duties of citizens etc. Hence the proper title of this subject of study must be 'political science'.

It is the study of the state in the past, present and future and of political organization, political functions and political theories.

Thus we find that the state, government and other problems connected with them fall within the purview of political science.

According to Garner : The study of Political Science starts and ends with state.

According to paul Janet : The science which deals with the study of origin and principles of state is political science.

Importance of Political Science

The knowledge of Political Science is most essential in the present age. The progress and development of a state depends upon the thinking, knowledge and political involvement of the people.

- Political Science helps to understand the birth and growth of a state. It provides information about the type of Governments and Political activities involved in the functions of the State.
- Political Science provides information about the origin and development of ideas such as monarchy, freedom, justice, laws, equality, good government, wars and peace etc.
- It provides information about the structure and functions of the state and central governments.
- In the light of the past and the present activities of the government, Political Science helps to plan the future activities of the state. It also helps to establish a modern welfare state.

- Political Science provides knowledge about the Constitution and laws of the state.
- Political Science helps to understand about the organs of the government i.e., Legislature, Executive and Judiciary structure and their functions.
- Political Science develops Political consciousness among the people. It keeps the government and the people politically vigilant and active.
- The knowledge of Political Science helps leaders and civil servants to understand and find solutions to the problems of the people effectively.
- The knowledge of Political Science helps to raise good leadership and good citizens.
- Political Science helps to understand the important Political institutions like political parties, federal system, local bodies and others.
- Political science deals with ideologies which inspire and influence active political involvement of people.
- Political Science provides the knowledge of international relations especially the importance of peace and co-operation among nations.

Thus the study of Political Science helps us to understand the need for a state, good governance of the state, the role of the leaders and people's participation. It helps the people to become good, responsible, cultured, and active citizens. The knowledge of Political science contributes to the establishment of a just, peaceful, progressive and a happy state, which is the dream of millions and millions of people for a long time everywhere.

EXERCISES

I. Fill in the blanks with suitable words :

1. The word Politics was derived from the Greek word _____.
2. 'Republic' was the work of _____.
3. Aristotle wrote a book on political science and it is called _____.
4. Kautilya's work relating to political science is _____.

II Answer the following questions in brief :

5. What is political science?
6. Who began the systematic study of Political Science ?
7. Who is called the Father of Political Science?
8. Give a definition of Political Science.
9. Mention uses of the study of Political Science?

III Activities :

1. Prepare an album highlighting the nature of the Political system existing during the kings.
2. Discuss the statement of Aristotle given in the book in your classroom with the help of your teacher.
3. 'The social needs of man led to the rise of the state' – is it so? Arrange a talk on the topic in your classroom.

IV Projects :

1. Imagine that you are a member of an ancient Greek city state and discuss any one particular issue of the city state.
2. Collect portraits of world leading political thinkers and prepare an album.

CHAPTER-8

CITIZEN AND CITIZENSHIP



After studying this chapter you learn :

- Know the meaning and difference between citizen and citizenship.
- To know about the facilities provided by the country to the citizen.
- Differentiate between citizen and alien.
- Know the methods of acquiring citizenship and reasons for losing citizenship.

Meaning

The meaning of citizenship varies from time to time. In ancient Greek the word citizenship had a narrow meaning. Then, it referred to those persons who took direct and active part in the administration of the state not all who lived in the state were citizens, but only those who actively participated in the administration, justice, and legislative functions of the state were called citizens. In ancient Greece, citizenship was a privilege conferred upon selected few. Women, manual workers and slaves were denied all the rights of citizenship.

But in modern times the term citizenship conveys broader meaning. The term citizen, in modern times, refers to a person who is a full-fledged member of the state, enjoying all rights- civil, political and economic and owing allegiance to the state to which he belongs.

Vattel defines 'A modern citizen as a member of a civil society, bound to it by certain duties, subjected to its authority and an equal recipient of its advantages'. Accordingly a citizen is a member of a state who, owes allegiance to it and enjoys the protection and benefits granted by it and perform duties towards state. Thus a citizen is a permanent member of the state, who possesses civil and political rights and owes allegiance to the state to which he belongs.

There is a difference between subjects and citizens. Before 1947 we were subjects of the British. After independence we became the citizens of India. Generally people who belong to and live in a state are its citizens. To be a good citizen, one has to obey the law of the

land one has to fulfil certain conditions which are legal. There is a relationship between the state and the citizens. The state provides protection and certain facilities to its citizens while the citizens in turn by following state policies rules and regulations should see their growth in the development of the state, obey the laws and owe their allegiance to the State. Citizens by following state policies, rules and regulations should see their growth in the development of the state.

A citizen is one who is a member of a state and enjoys certain benefits in his state. They are :

- He enjoys security and gets protection from the State.
- He enjoys a peaceful life as the state ensures law and order.
- In modern times under social welfare schemes he enjoys benefits like education, health, insurance, settlement, employment and such others provided by the state.
- He enjoys both the civil and political rights.
- He enjoys the fundamental rights guaranteed by the constitution.
- He can participate in the Political processes like voting and contesting in the elections.
- He is eligible to occupy certain offices such as those of the President of India, Vice-President, Judge of Supreme court, High Courts and such others.
- He is eligible for recruitment to all public services.

Difference between a citizen and an alien

A citizen is a member of the state. Who is born and grown in the state and owes allegiance to it and enjoys both civil and political Rights. He owes allegiance to it. He is protected by the state. An alien, on the other hand, is one who has come to reside temporarily in a state. He is a foreigner in the state of temporary residence but a citizen of the state from which he has come.

The chief differences between the citizen and alien are the following:

1. Citizens are permanent residents of their state. Aliens are temporary residents or tourists.
2. Citizens enjoy political rights, aliens are not given political rights like right to vote, right to contest election, right to hold public offices etc. These are not enjoyed by an aliens.
3. Citizens owe allegiance to their state. An alien is a foreigner who is a citizen of another state. He should respect and follow the laws of the state in which he is temporarily living.
4. But citizens cannot be driven out of his state. An alien can be asked to leave the country of temporary residence for various reasons such as illegal activities, expiry of visa period, etc.

Methods of acquiring citizenship

There are two ways of acquiring citizenship namely

1. Natural Citizenship
2. Naturalised Citizenship

1. Natural Citizenship : Based on the place of birth, the rules for granting citizenship of that state are found to be in practice. If a person is born in a state then he is eligible for Natural citizenship of that state. But it is argued that granting citizenship based on place of birth is illegal because there is a chance the birth will happen accidentally in another country.

2. Naturalized Citizenship : Citizenship can also be acquired through naturalization. According to this method, an alien can become a citizen after fulfilling certain conditions. Though these conditions vary from state to state, some of the general principles which are observed may be summed up as follows:

- a) Domicile or Residence :** Long residence in a foreign state entitles a person to acquire the citizenship of that state. The period of residence differ from state to state. In England and USA it is five years. In France it is ten years.
- b) Marriage :** A woman acquires the citizenship of her husband's country when she marries a foreigner. But the husband does

not get the citizenship of his wife's country. The condition of marriage in Japan and some other countries are quite different as husband also gets citizenship.

- c) **Foreign service** : A person appointed in the government service of a foreign state may be granted the citizenship of that country. Many countries do not permit the foreigners to serve in the public service for suspicion of their loyalty.
- d) **Application** : In all states an alien may be granted citizenship if he applies for it and satisfies certain conditions. Usually, all states demand the applicant to be solvent and be a person of good moral character.
- e) **Property** : A person who purchases property in a foreign country, desires to become a citizen of that country may be granted citizenship. In Mexico there is such provision. But in recent times the foreign countries may not provide opportunities to the foreigners to buy landed property.

Methods of acquiring citizenship in India

Parliament is the sole authority to legislate the laws on citizenship in our country. State legislatures have no powers in this matter. The Citizenship Act was enacted by the Parliament of India in 1955 and it elaborates the provisions for the acquisition and termination of citizenship. The Act was amended in 1986. This act was recently amended in 2019. These amendments made the acquisition of Indian citizenship more stringent. The Citizenship Act 1955 prescribes modes of acquiring citizenship. They are :

1. Citizenship by birth : Every person born in India on or after 26th January 1950 shall be a citizen of India by birth. Those who were born before 26th January 1950 and also domiciled in India were granted citizenship.

2. Citizenship by descent : Every person born outside India on or after 26th January 1950 shall be a citizen of India by descent if either of his parents is a citizen of India at the time of his birth.

3. Citizenship by registration : If any person who is not an Indian citizen, if he desires to become Indian citizen he can acquire the Indian citizenship as per the constitution or The Act of Citizenship through registration.

4. Citizenship by naturalization : Foreigners can acquire Indian citizenship by naturalization by submitting an application to the concerned authority i.e. the President of India. Certain conditions have to be fulfilled by them before submitting the application. They should have lived in India for not less than the period of seven years.

5. Citizenship by the incorporation of a new territory : If any new territory is added to the territory of India. The people of that territory will get citizenship of India by order of the Government of India.

Loss of Citizenship in India : Just as citizenship may be acquired, it can also be lost for a variety of reasons. Some of the important ways of losing citizenship may be stated as follows:

1. Renunciation : Any Indian citizen can renounce his citizenship voluntarily by submitting an application before the concerned authority.

2. Termination : If any citizen of India acquires the citizenship of any other country his Indian citizenship is terminated by law. This procedure does not require the submission of any application.

3. Deprivation : If any person has obtained the citizenship of India by fraud or if he/she has indulged in anti national activities or shown disloyalty towards the Constitution of India, the government of India deprives him/her of his/her citizenship. It is forced termination.

Types of Citizenship : There are two types of citizenship. They are single citizenship and dual citizenship.

Single Citizenship : People have only one citizenship that is National citizenship irrespective of the province that they belong to. There is no separate state citizenship bifurcation into single and dual for example India. For example we live in Karnataka but we have Indian Citizenship.

Dual citizenship : Dual citizenship is a system of having separate citizenship for a nation and a state. A person is a citizen of the state in which he resides as well as a citizen of that nation. For example, dual citizenship exists in the USA where there is a federal state system. If a citizen lives in the state of New-Jersey, he has citizenship of the state of New-Jersey. Along with that there is citizenship of the USA.

Citizen and the Government : There is a close relationship between the state and the citizen. There is no state without citizens. The state or the government protects the interests of the people. It provides protection from foreign aggression. It maintains law and order and promotes unity.

It frames the laws and curbs aggressive elements and violence so that peace can be maintained in the state. It undertakes social, economic plans and educational programmes for the benefit of its citizens. It plans and undertakes programmes to overcome the problems of illiteracy, poverty, inequality and unemployment etc. In addition to it the Constitution guarantees fundamental rights.

The citizens have certain duties towards the nation. Rights and duties are like the two faces of the same coin. A citizen derives many benefits from the nation. Similarly he has certain obligations and duties to perform.

- He must respect the Constitution and obey the laws of the government.
- He must protect the national honour and dignity by his words and deeds.
- He must not indulge in anti-national activities.
- He must oppose and check the evil practices like corruption, nepotism, dowry, child marriage, etc., through constitutional means.
- He must take part in the political activities of the state as the quality of the government depends on the quality of citizens.

- He must place the national interest above the personal interest and work for national progress.
- He must be service minded and must be prepared to sacrifice for the sake of the nation.
- He has obligation like paying taxes and defending the nation.

In addition to these functions certain fundamental duties are incorporated in our Constitution. The purpose of these fundamental duties is to make citizens aware of their social and economic obligations. It also helps the citizens to understand as to what they should do or what he should not do in the interests of the country. So a citizen should follow and practise these fundamental duties in the interests of community, nation and their own progress. There should be a cordial relationship between the citizens and the government. It should be based on the principle of give and take.

Fundamental duties are incorporated in our constitution in 1976 through the 42nd Amendment Act. The fundamental duties are included under article 51A.

EXERCISES

I. Fill in the blanks with suitable words :

- 1 The people living in India under the British rule were termed as _____.
- 2 A temporarily residing foreigner in our country is called _____.
- 3 Citizenship Act was passed in the year _____.
- 4 The method through which you have acquired citizenship is _____.

II Answer the following questions in brief :

- 5 What is citizenship ?
- 6 What are the benefits enjoyed by a citizen ?

- 7 Name the body which has the authority to legislate the laws on citizenship in India.
- 8 Mention the methods of acquiring citizenship.
- 9 Explain the citizenship by naturalization.
- 10 What are the methods of losing citizenship ?
- 11 Mention a situation under which citizenship is terminated.
- 12 Mention the types of citizenship and write the differences between them.
- 13 What are the duties of a citizen towards his nation ?

III Activities :

- 1 Prepare a pictorial representation of the fundamental duties and exhibit it in your school.
- 2 Discuss the benefits of fundamental rights under the guidance of your teacher.
- 3 Discuss the importance of the right to equality and the right to freedom in India (under the guidance of your teacher).
- 4 Prepare a pictorial chart showing the methods of acquiring and losing citizenship and exhibit it in your classroom.
- 5 Discuss the benefits of single citizenship in India.
- 6 Supposing the dual citizenship as in US is introduced in India, how does it benefit us? Discuss.

IV Projects :

- 1 Collect information from the newspapers and magazines about the violation of fundamental rights and the remedial measures taken.
- 2 Collect information from the authorities concerned about the procedure to be followed by an Indian if he wants to stay in a foreign country for a short period of time.

SOCIOLOGY

CHAPTER-9

MAN AND SOCIETY



After studying this chapter you learn :

- ‘Man is a social animal’.
- Socialization and human expressions.
- About the early sociologists.

Among all the living beings on earth, it is only human beings who have complete awareness about their existence. They contemplate their goals and purposes in life. It is due to this that innumerable questions arise in people’s minds. Why is man called a social being? Is man God’s creation? Why are there differences between groups? What is that strength which unites people and groups? Why does society undergo constant change? Is this change a sign of progress? In order to find answers to such questions, and to study human society in a methodical manner, many attempts were made 150 years ago in a scientific manners.

As a result of all these attempts, a new branch of study originated. This study was called Sociology.

Sociology has been derived from the Latin word ‘**Socius**’ and Greek word ‘**Logos**’. These two words jointly mean the **Study of Society**. This word was first used by **August Compte**.

According to **August Compte** “Sociology is a scientific study of the factors related to Social order and Social progress.”

According to **Maciver and Page** “Sociology is a study of Social relationships”.

Importance of Studying Sociology

1. Helps in personality development.
2. Give solutions to social problems.

3. Sociology gives knowledge about modern situations and developments.
4. To promote social welfare of backward and weaker sections of society.

Man is a Social Being

The relationship between man and society is unique. There is no society without man, nor man without society. That is the reason many sociologists are of the opinion that man is the creation of society, and society, that of man. If we close our eyes and ask ourselves, "Would it be possible for me to live all alone in my town?" everyone would come up with the same answer. And that is impossible. Isn't that so? Man is a social animal. He desires to live with others around him. Society is necessary for the development of all of us, because social relationships are necessary for man's existence. That is the reason **human society has been called a web of social relationships**, and man, a social being.

Socialization

If we have to become members of society, we have to live amidst society. If we do not live among people, we will not be able to learn language, study, play games, experience thought processes or the body language that we have learnt now. This process of learning is called socialization. The family, school, peer groups, mass communication etc., enable our socialization. The family provides us food, nurturance, education and security. Parents help us to grow mentally and physically healthy.

The school provides formal education. We learn to co-operate and live with others interacting with our peer groups. The mass media gives us knowledge about the world around us and enables us to live in harmony with it. Due to all this help from various quarters, man is able to lead a successful life in society.

The Necessity of the Social Environment

If man does not grow in a social environment, he cannot imbibe the qualities of a human being. An individual cannot be socialized outside the society and group. In order to understand the truth of this statement, the following instance can be studied:

Kamala, a girl who was found in Midnapore in 1920, had spent nine years among the animals in the forest. She used to walk on all fours like an animal and eat raw flesh. Later, in the company of human beings, she learnt to eat cooked food, to speak and behave like other children. But she was not aware of her own nature. What is evident from this instance is that man, if he is not in human society, becomes an animal. This has been proved by many other experiments by social scientists.

Human Beings and Language

How do we express our feelings? We can express hunger, thirst, sleepiness, sorrow and happiness through our bodily gestures and signals. But we cannot convey all our feelings only through body language. Language becomes inevitable in such situations.

Our languages have words such as father, mother, brother, sister, uncle, aunt etc., including relations between human beings. Thus language is needed to understand specific relationships and feelings perfectly.

Man knows language, whereas animals do not. This is the difference between man and animals. Just imagine how the world would be without language. There would be no textbooks, schools, mass media or civilization! Human society would be just like animal society. Therefore, while studying society, language is treated as a very important aspect of society.

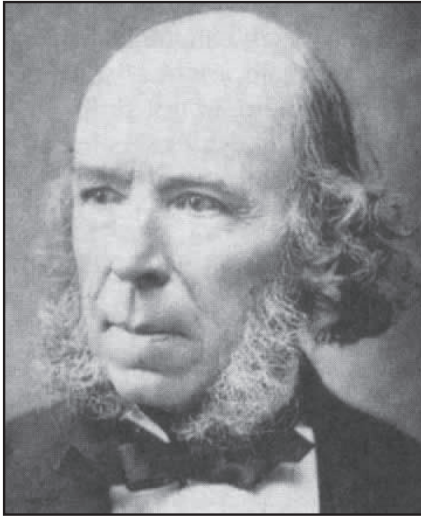
Early Sociologists

Let us know about the Sociologists who developed sociology in the early stages. Sociologists are those who study the society, culture, behaviour, social relationships, etc. Some of the early sociologists are as below:

Auguste Comte was the one who gave the name Sociology to the scientific study of society. Hence he is considered the Father of Sociology. Herbert Spencer was the British sociologist who lived in the 19th century. He studied the evolution of society.



Auguste Comte



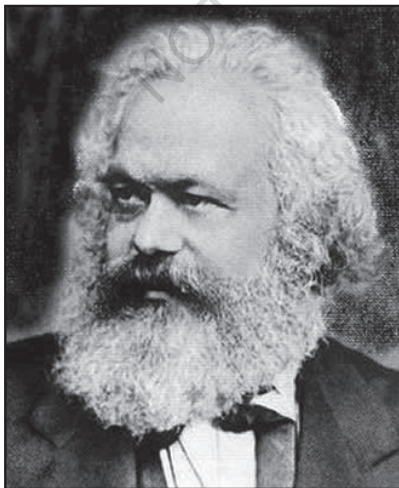
Herbert Spencer



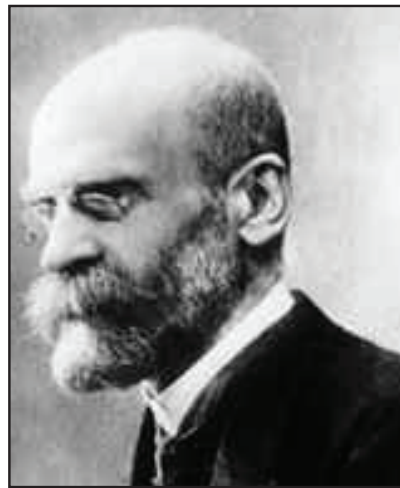
Max Weber

Emile Durkheim, the French sociologist, lived in the latter part of the 19th century and the early part of the 20th century. He worked hard at making sociology a science. Max Weber was a German sociologist. He was also a great scholar in the fields of Economics, Philosophy and History. He did a sociological study of the Labour force and the Christian religion.

Karl Marx was a German philosopher. He was highly knowledgeable about History, Economics, Philosophy and Christian Religion. He extended the scope of sociology.



Karl Marx



Emile Durkheim

The British introduced Sociology in the Bombay University in 1914. Leading Indian sociologists are G.S.Ghurye, M.N.Srinivas, A.R.Desai, Iravati Karve, S.C.Dubey and others.

EXERCISES

I. Fill in the blanks with suitable words :

1. Man is a _____ animal.
2. Formal education is provided by the _____.
3. The Father of Sociology is _____.
4. To become a human being _____ is necessary.
5. Human beings express their feelings through _____.

II. Answer the following questions in 2/3 sentence each :

6. Define Sociology.
7. What is socialization?
8. Describe Kamala, the one who was found in Midnapura.
9. Name some early sociologists.

III. Answer the following questions in 4/5 sentences each :

10. Explain 'Man is a social being'.
11. Explain the relationship between human beings and language.
12. What is the importance of studying sociology?

IV. Activity :

1. Collect the pictures of Sociologists.

CHAPTER-10

MAN AND CULTURE



After studying this chapter you learn :

- The concept of culture and its development.
- Cultural Diversity and Customs.

In our daily conversations, the word 'culture' is generally used to refer to good behaviour, customs, traditions and rituals. Let us see how this word is used in sociology.

The word culture is derived from Latin word 'colere', that means cultivate. Various sociologists have defined this word in different ways. Culture is that complex system involving knowledge, the arts, morality, law, customs, abilities and talents that we learn being members of society. In short, whatever we are, that is our culture.

Culture is shaped by the geographical features, traditions and needs of that particular society. That is the reason we cannot call one culture good and another culture bad. Culture is transmitted from one generation to another. The language we have learnt has been passed on to us by our elders. Culture is subject to change constantly. As you might have observed, the style of dressing, hairstyles and food habits have changed a lot over the past ten years. Thus the culture of one society differs from that of another society.

Cultural Diversity

Let us imagine that we are walking along a famous street in Bengaluru, the capital city of Karnataka. We will get to see people dressed in various kinds of clothes, people belonging to different races and people conversing in different languages.

There cannot be the same kind of culture in any society. There will be different cultures depending on the religions and life styles followed by the people. We call this pluralistic culture.

Even when cultures vary, they can influence one another deeply. For instance, the chudidhar worn by women is a kind of dress which has come from the South-West Indians to us. In the same manner, the trousers and shirts that we wear, the English language that we speak have come to us from the British. In India we get to see a pluralistic culture consisting of hundreds of tribes, thousands of castes, many races and hundreds of languages. That is the reason why India is said to have unity in diversity.

Customs and Traditions

Now that we have understood what culture is and how diverse it can be. Let us know what constitutes culture. Culture is made up of beliefs, values, rules, social conventions and morals. These can collectively be called customs and traditions.

Freedom, honesty, true friendship, cleanliness, humility, patriotism etc. are values. Values can be understood as the behaviour expected of human beings by society. Values enable us to determine what is good and bad in every culture.

There are conventions and moral codes to complement rules. Conventions are the activities we engage in again and again in our daily lives. We engage in eating, sleeping, greeting and other similar activities according to the prevailing conventions without giving much thought to them. These activities are inseparable parts of culture. For example, you do not ask your teacher everyday how you have to sit down to eat or sit in the class. You will have learnt all of them just through practice of conventions. Conventions enable us to do our daily duties without any hesitation.

EXERCISES

I. Fill in the blanks with suitable words :

1. Culture means _____.
2. Conventions are activities engaged in again and again in our _____.
3. We get to see unity _____ in India.

II. Answer the following in brief :

4. What is culture?
5. Give examples of the cultural diversity in your environment.
6. What are customs and traditions?
7. Give examples for customs and traditions.

III. Answer the following in four-five sentences each :

8. What are conventions? Give an example of a convention.
9. Explain cultural diversity.
10. Describe the various aspects of culture.

IV. Activity :

1. Describe a fair held in your locality and discuss it with your elders.

GEOGRAPHY

CHAPTER-11

THE EARTH – OUR LIVING PLANET



After studying this chapter you learn :

- Other names of the Earth.
- The size of the Earth and distribution of water on it.
- To recognise the continents and oceans of the world.
- About latitudes and longitudes, time, local time standard time and international date line.
- To mark the oceans and continents on the world map.

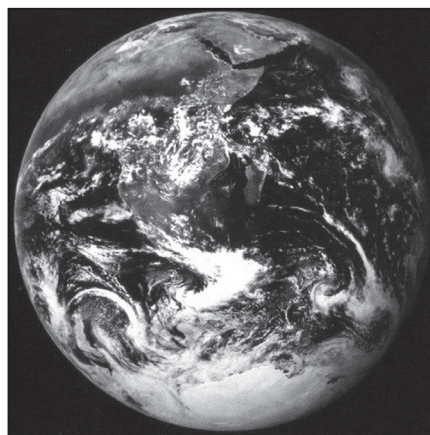
Do you know where we are living?

We are living on the Earth. It is the third planet from the Sun. The Earth is the home for all forms of life like plants, animals and human beings because of its suitable distance from the Sun, range of temperature, life supporting gases, atmosphere, water cycle etc. Our Earth is called by many names. Some of them are 'Living Planet', 'Unique Planet', 'Watery Planet', 'Blue Planet'.

Size of the Earth: Distribution of Land and water bodies

The Earth is the fifth largest planet in the Sun's family. The diameter of the Earth is approximately 4 times greater than the Moon and it is around 107 times less than that of the Sun.

The total geographical area of the Earth is 510 million sq kms of which 361 million sq kms (70.78%) is covered by water and 149 million sq kms (29.22%) is covered by land. Thus the Earth has an unequal distribution of land and water. The ratio between the land and the water bodies is 1: 2.43.



Earth

The Earth's shape is often described as Geoid, which literally means 'Earth shaped', or 'Oblate Spheroid'. The Earth is flattened at the poles and bulged at the equator. The Equatorial diameter of the Earth is 12756 kms and the Polar diameter is 12714 kms. Equatorial circumference - 40,076 kms and Polar circumference - 40,008 kms. The difference of 42 kms in diameter is the proof for regarding the earth as Geoid.

The land bodies of the Earth are known as Continents. There are seven continents, namely Asia, Africa, North America, South America, Antarctica, Europe and Australia. The continents are land masses of large size. Asia is the largest continent in the world while Australia is the smallest continent. The large water bodies on the Earth are called oceans. There are four major oceans. They are the Pacific ocean, the Atlantic Ocean, the Indian Ocean and the Arctic Ocean. The Pacific is the largest and deepest ocean while the Arctic is the smallest and shallowest ocean.

The land and water bodies are unevenly distributed between the Northern and the Southern hemispheres. The Northern Hemisphere has 60% of land and 40% of water. Therefore it is called the 'Land Hemisphere'. On the other hand there is 81% of water and 19% of land in the Southern Hemisphere and so it is called the 'Water Hemisphere'.

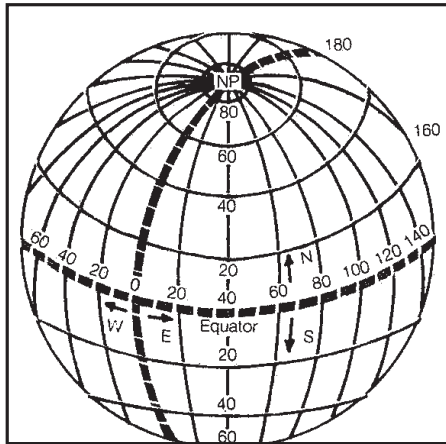
Latitudes and longitudes

How do we understand the location of a place, direction and distance between places?

The Earth is spherical in shape. Therefore it is difficult to locate the places, the direction and calculate distance between places. In order to understand the relations between different places on the Earth and their exact location, we have to understand their position, their distance from any fixed point and also their exact direction. To know the position, distance and direction east and west or north and south, a network of lines are drawn on the globe. These are known as lines of latitudes and longitudes. The horizontal lines are the lines of latitudes and the vertical ones are the lines of longitudes. These lines intersect each other at right angles and create a network called grid or graticule.



World Physical



**PARALLELS OF LATITUDE AND
MERIDIANS OF LONGITUDE**

LATITUDES : Latitude is an imaginary line which joins all the places which have the same angular distance north or south of the equator. It is measured in degrees. The Equator (0°) is the longest line of latitude known as the Great circle. It is equal to the circumference of the Earth. Other lines of latitudes are of shorter length. The length of lines of latitude decreases with the distance from the equator. All lines of latitudes are circles and parallel to the Equator. Therefore, lines of latitude are called parallels of latitude.

There are 90° of latitudes on each side of the equator - 90° of North and South are points. Including the equator totally there are 181 latitudes on the globe. The ground distance between two degrees of latitudes is 110.4 kms.

Important latitudes

1. 0° latitude-Equator or Great Circle.
2. $23^{\circ}.30'$ North latitude – Tropic of Cancer.
3. $23^{\circ}.30'$ South latitude – Tropic of Capricorn
4. $66^{\circ}.30'$ North latitude – Arctic Circle.
5. $66^{\circ}.30'$ South latitude – Antarctic Circle.
6. 90° North – North pole.
7. 90° South – South pole

LONGITUDES : The imaginary lines that intersect the equator at right angles joining the north and south are called longitudes.

On the globe, longitudes are shown as a series of semi-circles that run from pole to pole passing through the equator. All lines of longitude are of equal length. Lines of longitude are called Meridians ('meri'-mid and 'dian'-day) because all places along the same meridian of longitude experience noon or mid-day at the same time. When we move towards North pole some areas change their timings accordingly to summer and winter which is known as day light saving time.

The meridian passing through Greenwich (England) has been chosen as Prime Meridian. It is marked as 0° longitude. There are 180 longitudes to the east of Greenwich and 180 to the west. Thus there are 360 of longitudes. The zone between the Prime Meridian and 180 E longitude is called the Eastern Hemisphere. The opposite zone is called the Western Hemisphere.

The distance between two consecutive longitudes decreases gradually with distance from the equator. This is because the meridians of longitude converge at two poles. On the equator the distance between two consecutive meridians is 111 kms.

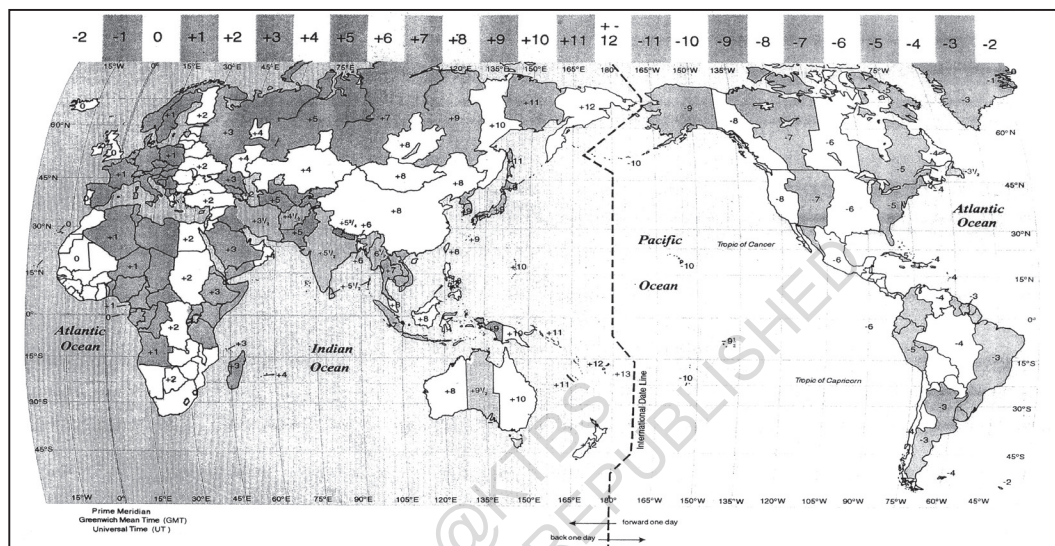
Longitude and Time : There is a definite relation between longitude and time. The earth is rotating on its axis and completes one rotation in 24 hours. This means 360 longitudes are covered in a period of 24 hours. This gives rise to a time difference of 4 minutes for every one degree of longitude, 60 minutes or one hour for every 15 degrees of longitude ($360 \times 4 = 1440 / 60 = 24$ hours). The time difference is to be added (E.G.A- East-Gain-Add) in case of places to the east of G.M.T and in case of places to the west the time difference is to be subtracted (W.L.S- West-Lose-Subtract).

Local time : The time according to the longitude of a place or according to the position of Sun at that place is known as the Local time. This is based on the local meridian passing over that place. When the Sun is shining vertically over the longitude it is 12 noon at that place. All places situated on the same meridian have the same local time. Every longitude has its own local time.

Standard time : As the local time varies from place to place, it would create considerable confusion if each place were to follow its own local time. In order to avoid confusion many countries follow uniform time throughout the country. Such uniform time is based on the central meridian of the country or the meridian on which the most important city is located. This uniform time which is followed throughout a country is called Standard Time of that country.

In India, $82^{\circ}.30'$ East longitude is considered as the Standard Meridian of the country. It passes through Prayagraj of Uttar Pradesh. The time based on this Meridian is called the Indian Standard Time (IST). It is 5 hours and 30 minutes ahead of G.M.T.

Time Zones : In certain countries of the World, where the longitudinal extent is so large (more than 45° of longitude) that there is often a difference of three to four hours between one part and the other, the land surface is divided into Time Zones. The whole globe is divided into 24 such time zones so that the time in each zone differs from the other by only one hour.



Time Zones and International Date Line

Large countries like Russia, USA, Canada and Australia have vast longitudinal extent. Therefore they have different time zones. Russia has 11 time zones, USA and Canada have 5 time zones and Australia has 3 time zones.

International Date Line (IDL) : The problem of time in countries of the world was solved first by the standard time and then by the zonal time. But the circumnavigation of the world brought a new problem in keeping the correct date and day in the week for the travellers. Therefore a line passing through 180° meridian diametrically opposite to the G.M.T was adopted as the point where circumnavigators should make adjustments. This line is supposed to pass Pacific ocean along the 180° meridian but makes short detours in order to avoid land masses. This is known as the International Date Line.

Because the date and day is changed whenever people cross this line by ships or aeroplanes.

Any ship crossing this line from west to east (Asia to North America) takes a day twice while the ship crossing this line from east to west (North America to Asia) loses one day.

EXERCISES

I. Fill in the blanks with suitable words :

- 1 The total geographical area of the Earth is _____ Sq. Kms.
- 2 The shape of the Earth is _____ .
- 3 The equatorial and polar diameters of the Earth is _____ and _____ Kms.
- 4 The $23^{\circ}.30'$ North latitude is called as _____ .
- 5 The Indian Standard Time is based on _____ longitude.

II Answer the following questions briefly :

- 6 Why is the Earth called 'Living Planet'?
- 7 Why are the Northern and Southern hemispheres called Land and Water Hemispheres?
- 8 What are latitudes and longitudes?
- 9 Mention the difference between local time and standard time.
- 10 What is the International Date Line?

III Define the following :

- | | |
|-----------------------|--------------------------|
| 11. Unique planet | 14. Continents |
| 12. Size of the Earth | 15. Prime Meridian |
| 13. Geoid | 16. Indian Standard Time |

IV Terms to Remember :

- | | |
|------------------|----------------------------|
| 1. Living Planet | 4. Antarctic circle |
| 2. Equator | 5. Zonal Time |
| 3. Arctic circle | 6. International date line |

V Activity :

1. List out the countries of the Eastern hemisphere and Western hemisphere on the basis of longitudes.

CHAPTER - 12

LITHOSPHERE



After studying this chapter you learn :

- The meaning of lithosphere and its importance.
- The structure of the earth and its composition.
- Structure of rocks.
- About the internal forces-volcanoes, earthquakes, etc., and their effects on life on the earth.
- The external forces like temperature, wind, rain and rivers.
- The meaning of underground water and its importance.

Meaning and Importance

The outer-most solid layer of the earth is known as the 'Lithosphere' (Litho means 'rock'). This layer is very thick in the continents and quite thin under the sea floor. The lithosphere consists of rocks, minerals, soils etc. Life exists on this layer with the help of the atmosphere and the hydrosphere. Continents are parts of the lithosphere where different land forms like mountains, plateaus, plains, etc., are found.

Earth's Interior and Composition

Do you know, what is there inside the Earth?

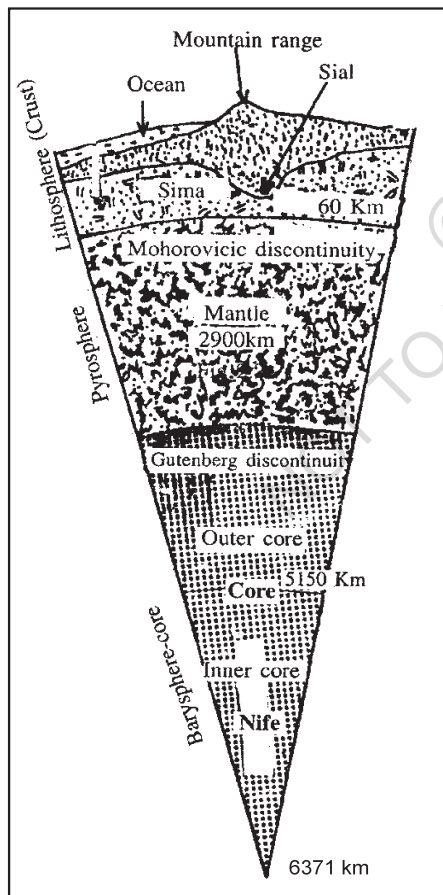
Our planet Earth is more than 4.6 billion years old and still in the process of changing. Man is in quest of understanding this change and eager to know more about the inside of the earth. What is inside the earth is still a mystery for man. With years of study and research human beings have been able to get information about the materials inside the earth up to 10 to 12 kms. Going beyond this depth is very difficult due to the increase of temperature (1°C for every 32 meters).

To understand more about the earth's interior humans are dependent on indirect evidence such as seismic waves, volcanic materials etc. The earth's interior comprises various materials in different forms. On the basis of density of material, chemical composition and physical state

of matter the earth's interior is classified into 3 main layers. They are the Crust, the Mantle and the Core.

The Crust: The crust is the uppermost layer of the earth, rich in Silica, Aluminium and Magnesium. This is generally known as Lithosphere. The depth of this layer is around 60 kms from the surface. In the upper part of the crust only lighter materials are found. It is called **SIAL** (Silica and Aluminium) or continental crust. The lower part of the crust is rich in Silica and Magnesium and it is called **SIMA** or oceanic crust.

The Mantle: The Mantle is the second and the middle layer of the earth. The depth of this layer is up to 2900 kms from the surface. The materials are in a semi liquid or partially molten state which is called magma. The mantle is composed of dense and rigid rocks which have predominance of minerals like magnesium and iron. The mantle has two parts a) Upper mantle or the Asthenosphere is partially in a molten condition and b) Lower mantle or the Mesosphere in solid condition. The contact zone of the crust and the mantle is called 'Mohorovicic Discontinuity' or Moho. While the boundary that separates the Mantle from the Core is called 'Gutenberg Discontinuity'. Here the rocks are different in chemical composition from those below and above.



Interior of the Earth

The Core: This is the innermost layer of the earth. The depth of this layer is up to 6371 kms from the surface. The most important materials of the core are Nickel (NI) and Ferrous (FE) (Iron). So it is known as NIFE. The core is divided into two sub layers a) The outer core is known as molten core, where the materials are in liquid and in molten form. b) The inner core is known as solid core.

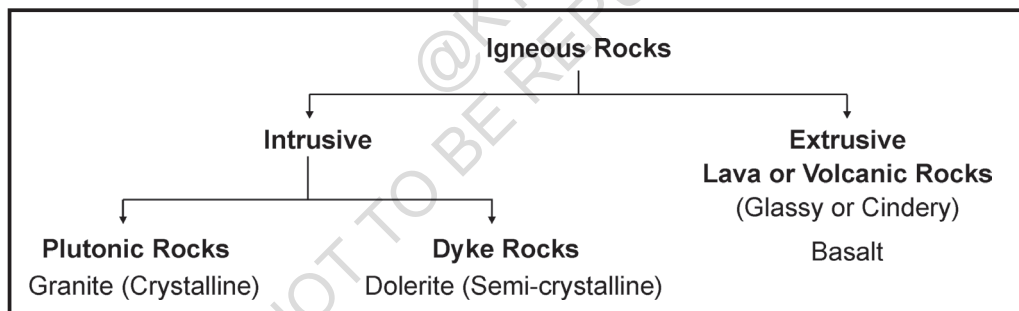
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Some deepest land mines in the world

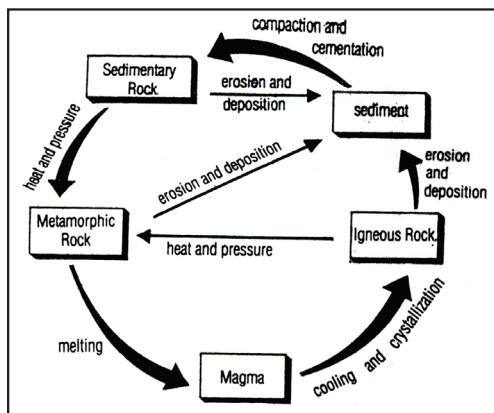
1. Kola deep Borehole : This borehole was drilled as a part of a scientific research deep drilling project near Murmansk, Kola Peninsula, Russia. It is the deep hole artificially drilled as a part of the earth - 12.262 Kms.
2. Tau Tona Mine : South Africa gold mine currently the world's largest gold mine - 3.9 Kms.
3. The Champion Reef Gold mine at KGF, Karnataka in India is around 3.2 kms, is the deepest mine.

ROCKS

Rocks are the solid inorganic substances that are found in the crust of the earth. They are aggregates of minerals. Rocks are formed due to various natural processes. On the basis of mode of formation, rocks are classified into three types. They are **(1) Igneous rocks, (2) Sedimentary rocks and (3) Metamorphic rocks.**



1. Igneous Rocks : The word 'Igneous' means 'fire' derived from the Latin word 'Ignis' or Sanskrit word 'Agni'. Igneous rocks are those which have been formed by the cooling of molten matter of the earth. Igneous rocks were the first to be formed, therefore they are also called Primary rocks.



Cycle of Rock

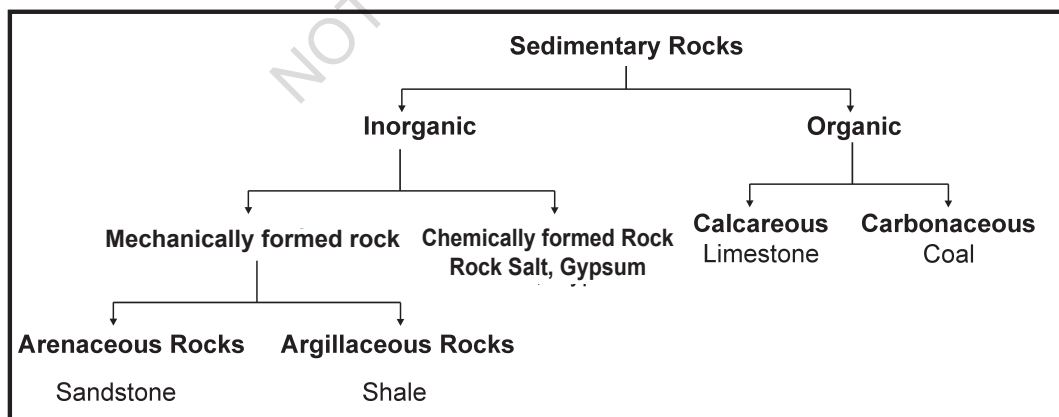
The two important types of igneous rocks are :

(i) Intrusive igneous rocks : When the molten materials (magma) of the Earth's interior do not reach the earth's surface, they cool and solidify (quite slowly) below the surface and called intrusive igneous rocks. These rocks are made of large crystals and are found at great depth inside the Earth eg., Granite, Diorite and Gabbro etc.,

(ii) Extrusive igneous rocks: Rocks formed by solidification of magma above the earth's surface are known as extrusive igneous rocks. These rocks are generally fine grained or glassy because lava after reaching the surface of the earth cools and solidifies quickly eg., Basalt and Andesite.

The rock material in the liquid or molten state is called 'magma' and when it comes out from the earth is called 'lava'.

2. Sedimentary Rocks : The word Sedimentary is derived from a Latin word 'Sedimentum', which means 'settling down'. Sedimentary rocks are formed by the agency of water, wind and ice. These agents break and erode the igneous rocks, transport those broken fragments and deposit them at certain places. The deposit of these materials often occurs in the form of layers or strata. Therefore sedimentary rocks are called stratified rocks. The sedimentary rocks are formed after the disintegration of igneous rocks. Therefore they are called secondary rocks. These rocks are also called aqueous rocks because they are formed in the water bodies (Lake, Sea and Ocean beds).



i) Mechanically formed sedimentary rocks: Rocks built up by fragments of pre-existing rocks which have been produced by the

processes of weathering and erosion eg., Sandstone (Arenaceous rocks) and Shale (Argillaceous rocks).

ii) Chemically formed sedimentary rocks: Chemical sediments are commonly formed by the process of evaporation of water containing salts in solution eg., Rock salt, Gypsum etc.

iii) Organically formed sedimentary rocks: Organic sediments are those derived by the accumulation of remains of organisms, such as shells of marine organisms, remains of plants and animals eg., Limestone (Calcareous rocks) and Coal (Carbonaceous rocks).

3. Metamorphic Rocks : Metamorphic rocks are those which are formed by the process of metamorphism or alteration of pre-existing rocks. Metamorphism means change of form which may be physical or chemical or both by the influence of heat and pressure.

Example:

- | | |
|------------------------|---------------------------|
| a) Granite -> Gneiss | d) Sandstone -> Quartzite |
| b) Basalt -> Schist | e) Coal -> Graphite |
| c) Limestone -> Marble | f) Graphite -> Diamond |

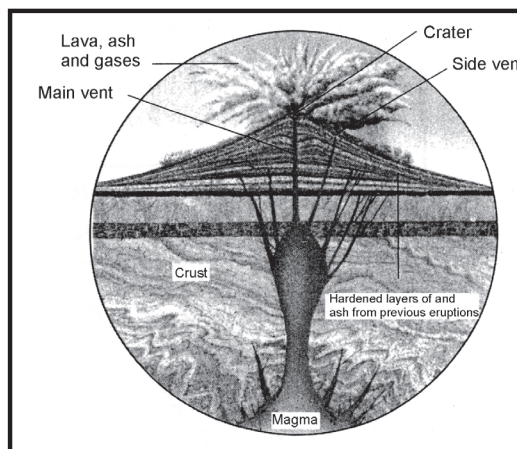
Metamorphic rocks are the hardest rocks on the earth. These rocks supply precious stones. ex :-Sapphire, Ruby and Emerald and Diamonds etc.

FORCES OF THE EARTH'S CRUST

The Earth has two important forces that change the face of the earth. They are Indogenic forces and Exogenic forces.

INDOGENIC FORCES

These are the forces which originate inside the crust and influence the surface features of the earth eg., Volcanoes, Earthquakes etc. The internal forces are also called Endogenic forces.



Structure of a volcano

VOLCANOES

A volcano is a vent or narrow opening in the Earth's crust connected by a pipe to an underlying magma chamber, through which magma, rock fragments, lava, ash, steam, flames and other gases are emitted from the interior of the Earth. A passage in the earth's crust through which magma and other volcanic materials are ejected is called 'Vent'. The funnel-shaped hollow at the top of the cone of a volcano is called 'Crater'. A large basin-shaped crater bound by steep sides is known as '**Caldera**'.

Types of Volcanoes : On the basis of the periodicity or frequency of eruption volcanoes are classified into three types.

Active Volcanoes: Volcanoes which constantly eject lava, gases, ashes etc., are known as active volcanoes. There are about 1350 active volcanoes in the world eg., Mt. Stromboli and Mt. Etna in Italy, St. Helens in USA, Mauna Loa in Hawaiian islands, Pinatubo in the Philippines etc.

Dormant Volcanoes: Dormant volcanoes are those which have erupted in the past and are likely to erupt again but have remained inactive for fairly long periods eg., Mt. Vesuvius in Italy, Mt. Fujiyama in Japan, Mt. Kilimanjaro in Tanzania, Mt. Krakatoa in Indonesia.

Extinct Volcanoes: Extinct volcanoes are those which were active in the remote geological periods. These are not likely to be active once again eg., Aconcagua in Argentina, Gorongoro in Tanzania, Arthur's Seat in Scotland.

Facts file

Super volcanic eruptions of the world

1. Mt. Vesuvius (Italy)
2. Mt. Krakatoa (Indonesia)
3. Mt. Pelee (West Indies)
4. Mt. Fujiyama or Fuji, a volcano worshipped by people of Japan.

Volcanic materials: The materials ejecting out from the volcanoes are of three types. **Solid:** Volcanic bombs, cinders, scoria, pumice, dust, ash. **Liquid:** Lava. **Gases:** Sulphur, Hydrogen, Carbon dioxide.

Distribution of Volcanoes: Volcanoes occur in many regions of the world, including islands, young mountain ranges and plateaus of the continents. Most important regions are: **1. The Circum-Pacific Belt or Pacific Ring of Fire:** Coastal margins of the Pacific Ocean consisting of Philippines, Japan, USA, Central America, South America etc. Where the world's largest volcanoes are found. **2. Mid-Atlantic Belt:** Iceland, West Indies islands **3. Mid-Continental Belt:** Italy, Spain, France, Greece, Turkey etc.,

Apart from the above major volcanic zones, volcanoes also occur in islands such as Hawaii and Indonesia.

EARTHQUAKES

Earthquake is a shock or series of shocks or tremors, due to a sudden movement of crustal rocks generated within the crust or mantle.

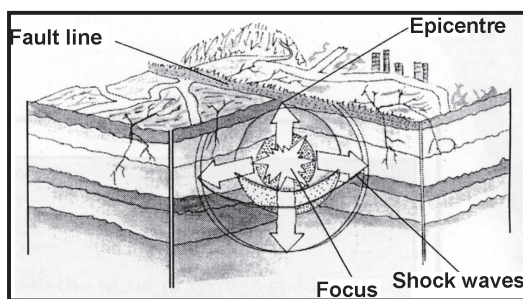
The point of origin of the earthquake in the earth's crust is called the Seismic focus or Hypocentre.

The point on the earth's surface vertically above the seismic focus is called the Epicentre.

The scientific study of earthquakes is called Seismology. The origin, time, velocity and direction of seismic waves are recorded by an instrument known as Seismograph.

Causes of the Earthquakes

Plate Tectonics: The earth's crust consists of many major and minor plates. These plates are not stationary. The plate boundaries are dynamic places and are the primary location of earthquake activity (Circum-Pacific Belt).



Actions of Earth quake

Volcanic Eruptions: Volcanic earthquakes are caused by gas explosions (Krakatoa volcano of Indonesia).

Faulting: A fault consists of a fracture in a rock along with a great deal of displacement. Earthquakes occur when movement of plates takes place along a line of fracture (San Andreas fault of California in USA).

Man made factors: Over interaction of man with nature is also one of the main causes for the occurrence of many of the earthquakes. The extraction of minerals, deep underground mining, huge dams and reservoirs, nuclear tests etc., (Koyna dam in Maharashtra, Hoover dam in USA).

Earthquake Waves

The earthquake or seismic waves originate in the seismic focus and travel towards the epicentre in ripples or concentric circles. The three important earthquake waves are:

1. Primary Waves (PW): Primary waves are also known as longitudinal or compressional waves. These are the fastest earthquake waves and the first waves to reach the surface. They can pass through solid, liquid and gaseous matters.

2. Secondary Waves (SW): Secondary waves are also known as transverse or distortional waves. These waves cannot pass through liquids. They reach the epicentre after the primary waves.

3. Surface Waves (LW): Surface waves are also called long waves. They are the slowest earthquake waves but are responsible for the highest destruction on the surface of the earth.

The magnitude and intensity of earthquakes is recorded by using the **Richter scale**.

The Earthquakes are very dangerous and destructive. They cause large-scale deaths, loss of property, landslides, flash floods, damage to bridges, roads, railway lines etc.

Tsunami: Tsunami is a large sea wave occasionally experienced along the coasts of Japan and in other regions caused by an underwater earthquake. In Japanese language 'Tsunami' means 'harbour waves'.

Facts file

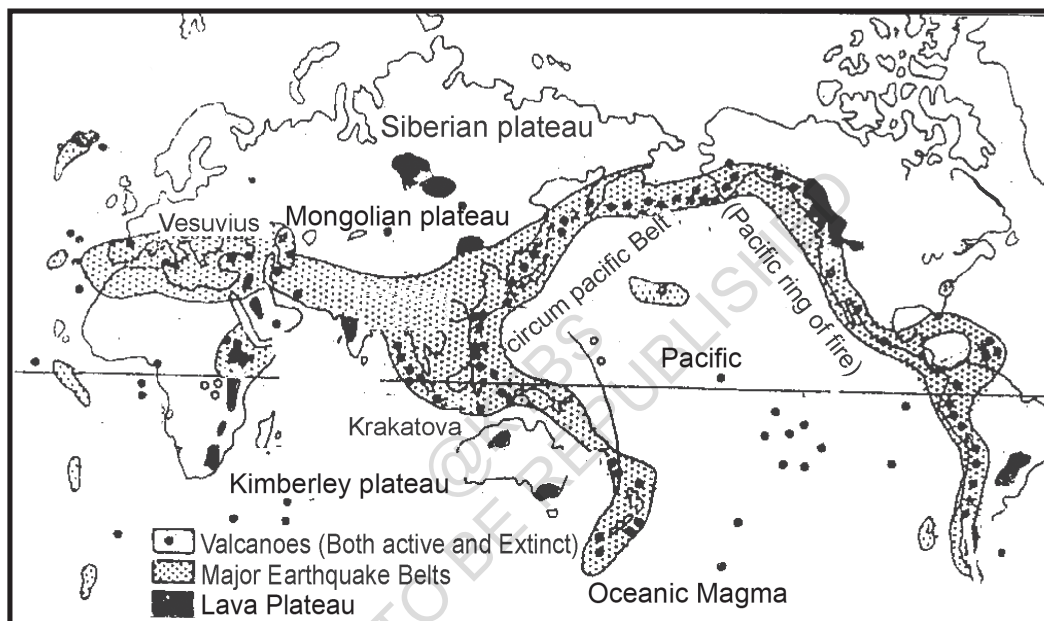
1. On 26th Dec, 2004 a Tsunami in the Indian ocean swept the coastal low lands of Indonesia, India, Sri Lanka, Thailand etc.
2. On 11th Mar, 2011 a Tsunami in the Pacific ocean caused huge damage in the eastern coastal regions of Japan (Fukushima, Sendai, Miyagi etc).
3. Some seismic recording centers of India: Gowribidanur, Kodaikanal, Pune, Hyderabad, Dehradun.

Earthquake Distribution

The distribution of earthquakes is as follows :

1. The coastline around the pacific ocean : This includes New zealand, Philippines, USA, Japan, Peru, etc.,
2. Coastal area around the mediterranean sea.
3. The Himalayan Mountain region of India (Shivalik region).

Earthquakes and Volcanic Regions



EXOGENIC FORCES:

Exogenic forces are the natural forces that modify the surface of the earth. The important forces are temperature, wind, rainfall, snowfall, river, glacier etc., These forces act on the surface of the earth and constantly change its features.

Weathering: Weathering is the wearing away or breaking down or gradual disintegration of rocks by agents (Temperature, rainfall, wind etc.) present in the atmosphere. The three types of weathering are:

1. **Mechanical weathering:** When the rock is broken and disintegrated without any chemical alteration, the process is called Physical weathering or Mechanical weathering. The important

processes of mechanical weathering are Granular disintegration, Block disintegration and Exfoliation. The agents of mechanical weathering are temperature, wind, frost etc.

2. Chemical weathering: Chemical weathering is mainly brought about by the action of substances dissolved in rainwater. This type of weathering results in changing the composition of minerals present in the rocks. There are four types of chemical weathering. They are:

- a. Oxidation:** In this type of chemical weathering oxygen dissolved in water reacts with certain minerals, especially iron, to form oxides.
- b. Carbonation:** When the rainwater falls on limestone rocks, the calcium carbonate present in the rocks absorbs carbon dioxide from rainwater and becomes calcium bicarbonate.
- c. Hydration:** Hydration is the process by which some minerals in crystalline form absorb water and become a powdery mass. Feldspar is a common rock forming crystalline mineral.
- d. Solution:** When the rain falls on the surface of the land, rainwater dissolves soluble minerals present in the rocks.

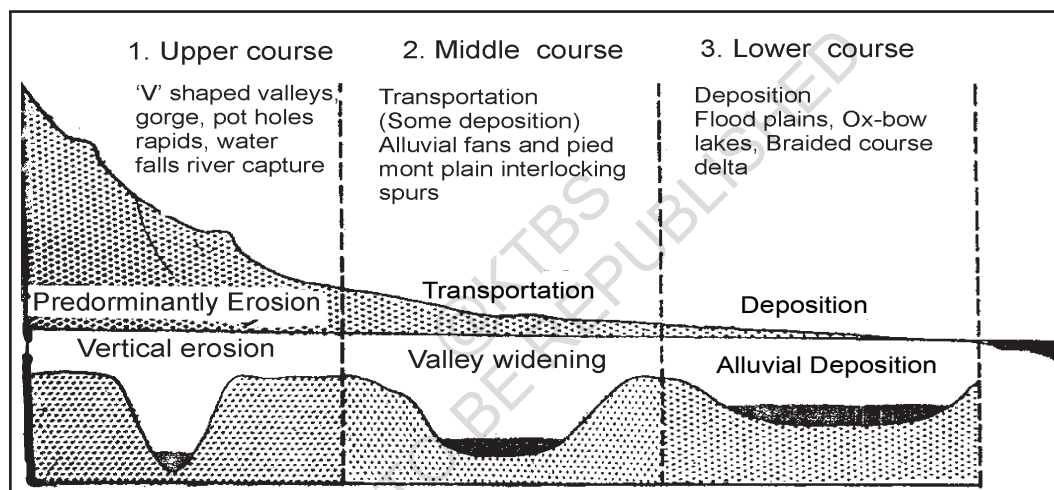
3. Biological weathering: Living organisms like plants, animals and human beings play a role in one way or another in the weathering of rocks. This type of weathering includes both physical and chemical weathering. (a) **Plants:** Growth and expansion of roots. (b) **Animals:** Burrowing animals, earthworms, rabbits, rats. (c) **Human beings:** Mining, quarrying, construction works.

DENUDATION

Agents of Denudation: Denudation is the action of changing landscape or changing the surface of the earth by various natural agents such as Rivers, Glaciers, Underground water, Wind, Sea waves etc., The work of these natural agents are Erosion, Transportation and Deposition. These processes produce distinct relief features.

River: A mass of fresh water flowing from its source to mouth along a definite course is called 'River'. The river is a most prominent agent of denudation. The place where a river takes its birth is called 'Source' and 'Mouth' is the point where it meets sea or ocean. 'Tributaries' are the feeders or small streams which supply water to river along its course. The point where a tributary joins the main river is called 'Confluence'.

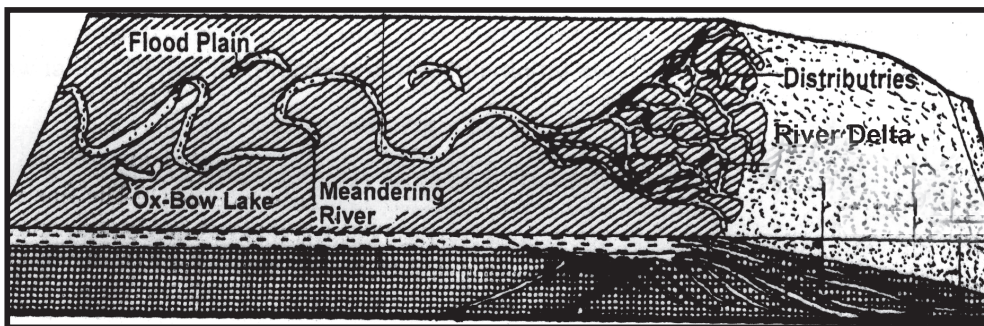
Course of the River: The course of a river from its source to mouth is divided into three stages. These stages are Upper course, Middle course and Lower course.



Stages of the river course and associated land forms

The Upper Course: Vertical erosion is most common due to steep slopes leading to deepening of valleys, resulting in the formation of gorges, canyons, 'V' shaped valleys, waterfalls and rapids (Angel falls, Niagara falls, Jog falls).

The Middle Course: In the middle course, the river path has a moderate slope and velocity is less than that in the upper course. The volume of water increases when many tributaries join the main river. The main work of the river in this stage is transportation of sediments and little deposition. The important landforms in this stage are Alluvial fans, Meanders etc.,



Major Landforms from fluvial deposition

The Lower Course: In this stage the slope of the river course is very minimum. The volume of river water is more and deposition is the main work of the river. The important landforms in this course are Flood plains, Natural levees, Ox-bow lakes, Deltas (Sundarban delta, Nile delta).

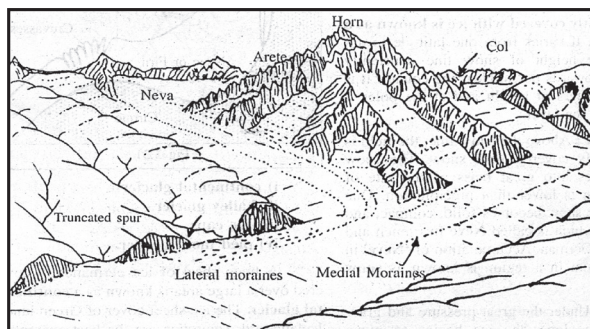
“The work of the river is called “Fluvial Cycle”.

Facts File:

Estuary – Tidal mouth of a river broadening into the sea / ocean.
Delta – A fan shaped, low lying area of deposits at a river mouth.

GLACIER : Glaciers are slowly moving, compacted masses of ice and snow found in the high mountains and polar regions. The mass of ice or snow is pulled down by its weight and due to the force of gravity.

Types of Glacier: Glaciers are divided into two types a)Continental glaciers and b)Mountain glaciers.



Work of Glacier

Continental glaciers:

Continental glaciers are extensive ice sheets found in polar regions eg., Greenland and Antarctica.

Mountain or Alpine or Valley glaciers:

The glaciers found in the Polar regions are called Mountain glaciers.

Glacier as an agent of denudation performs the work of erosion, transportation and deposition. The erosional work of glaciers is mainly side cutting. The landforms resulting from this are Cirque, Horn, Arete, ‘U’ shaped valleys, Hanging valleys, Rock steps etc.

The transportation and the deposition work of glaciers go almost together. The important depositional landforms produced by glaciers are Moraines, Drumlins, Esker, Kames, Outwash plains, Till plains etc.

‘Moraines’ are the most important landforms of the glaciated region. Moraines are of four types. **a) Lateral moraines:** Rock debris deposited along the sides of the glacial valley. **b) Medial moraines:** When two lateral moraines meet, it forms medial moraines. **c) Ground moraines:** Rock materials found on the floor or at the bottom of the glacial valley. **d) Terminal moraines:** The glacial deposits found at the end of the glacier.

The work of Glacier is called “glacial cycle.”

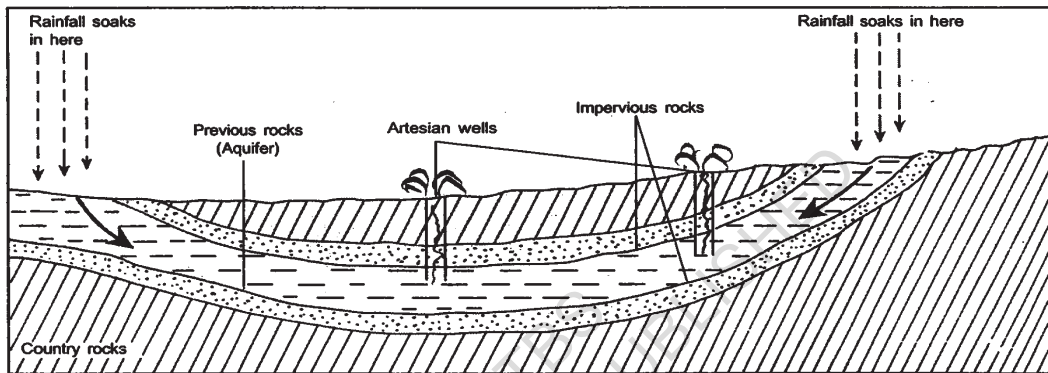
UNDERGROUND WATER

Underground water is the subsoil water found on account of percolation or seepage of water into the ground. The underground water which seeps into the ground passes through various layers of rocks. The rocks which allow the water to percolate are called ‘pervious’ or ‘porous’ rocks and the rocks which do not allow the water inside are called ‘impervious’ or ‘non-porous’ rocks. The porous rock beds which hold large amounts of underground water are called aquifers. The previous rocks allow and hold water and form springs. A Spring is a place where the underground water comes out naturally.

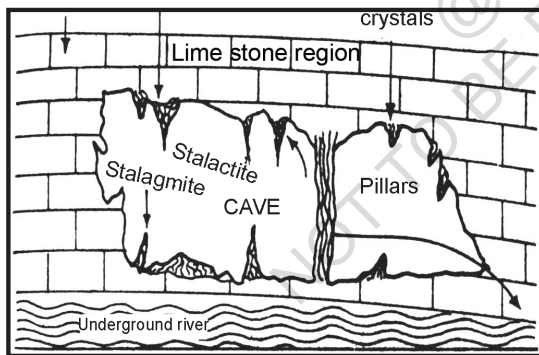
Types of springs:

- 1. Perennial springs:** It is a spring through which water comes out continuously.
- 2. Intermittent springs:** These are springs through which water comes out intermittently (not continuous) and they are also called ‘Periodic spring’.
- 3. Hot springs:** Whenever warm or hot water comes out naturally it is called hot spring or thermal spring. They are usually found near the volcanic regions.

4. **Geyser:** Geysers throw a jet of hot water (like a fountain) and steam into the air at regular or irregular intervals eg., Old Faithful in Yellowstone National Park of USA.
5. **Artesian wells :** When underground water is stored in a basin shaped layer between two non-porous rocks, the water cannot come out naturally. If an artificial hole is made to the porous rock, the water comes out like a fountain. These are called Artesian wells. These wells are common in Australia.



Artesian wells



Activity of Under ground water

Underground water performs the work of erosion, transportation and deposition. The work of underground water is predominant in the limestone region. The important landforms associated with the underground water are Lapies, Sinkholes, Limestone caves, Stalactites, Stalagmites, Calcite pillar etc.

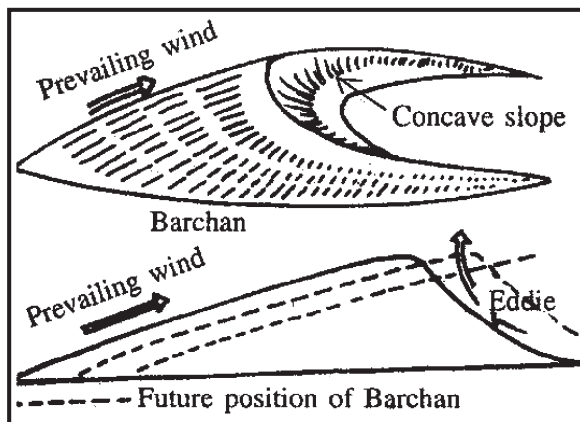
Facts File : Limestone caves

1. Akalagavi (Ulavi) caves of Uttara Kannada in Karnataka
2. Belum and Bohra caves of Andhra Pradesh

*Relief features formed by underground water in the limestone region are called '**Karsttopography**'.*

WIND

The denudation work of wind is common in the arid or desert regions. When the winds of high velocity blow over desert areas they erode, transport and deposit materials to produce different landforms. The important landforms associated with the erosional work of the wind are Rock pedestals, Mushroom rock, Inselberg. The depositional landforms are Sand dunes – Longitudinal sand dunes, Barchans and Loess deposits.

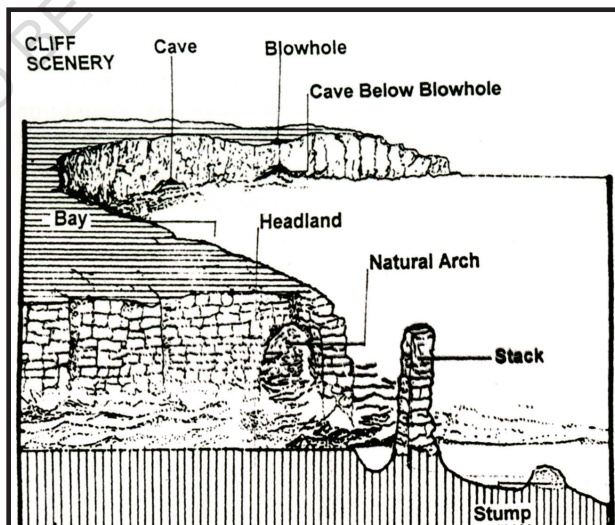


Barchans

Barchans are semi-circular or crescent shaped sand deposits most common in the deserts. Loess is the sand particles found beyond the borders of deserts (Loess plain (Yellow Soil) in China).

Work of wind is called "Aeolian cycle".

SEA WAVES : Like all other agents, sea waves are also an important exogenic agent of denudation. Sea waves are the regular undulation of water on the sea or ocean. The work of sea waves is significant along the sea shore or coasts. The important landforms associated with sea waves are Cliff, Sea cave, Sea stack, Sea arch, Headland, Sand bars, Beaches, Lagoons etc.



Sea Waves

EXERCISES

I Fill in the blanks with suitable words :

1. The continental crust is also called _____ .
2. The vast basin shaped volcanic mouth is _____ .
3. The most destructive earthquake waves are _____ .
4. Stalactites and Stalagmites are most common in _____ .
5. The Beaches are formed by _____ work.

II Answer the following questions briefly :

6. Mention the three major layers of the interior of the Earth.
7. Name the types of volcanoes on the basis of frequency of eruption.
8. Mention the important earthquake zones of the world.
9. What is weathering? Name the three main types of weathering.
10. Name the landforms associated with the work of the river.

III. Match the following :

- | A | B |
|----------------|----------------------|
| i. SIMA | a) Earthquake |
| ii. Sandstone | b) Yellow soil |
| iii. Epicentre | c) Oceanic crust |
| iv. Geyser | d) Sedimentary rock |
| v. Loess | e) Underground water |

IV. Define the following :

11. Aqueous rocks
12. 'Pacific ring of fire'
13. Mechanical weathering
14. Moraine

15. Carbonaceous rocks
16. Tsunami
17. Continental glacier
18. Hot spring

V. Terms to remember :

1. NIFE
2. Arenaceous and Argillaceous rocks
3. Tectonic forces
4. Mountain glacier
5. Aeolian cycle
6. Beaches

VI. Activities :

1. Collect the different rocks from your environment.
2. During a school excursion, observe how a waterfall is formed.

CHAPTER-13

ATMOSPHERE



After studying this chapter you learn :

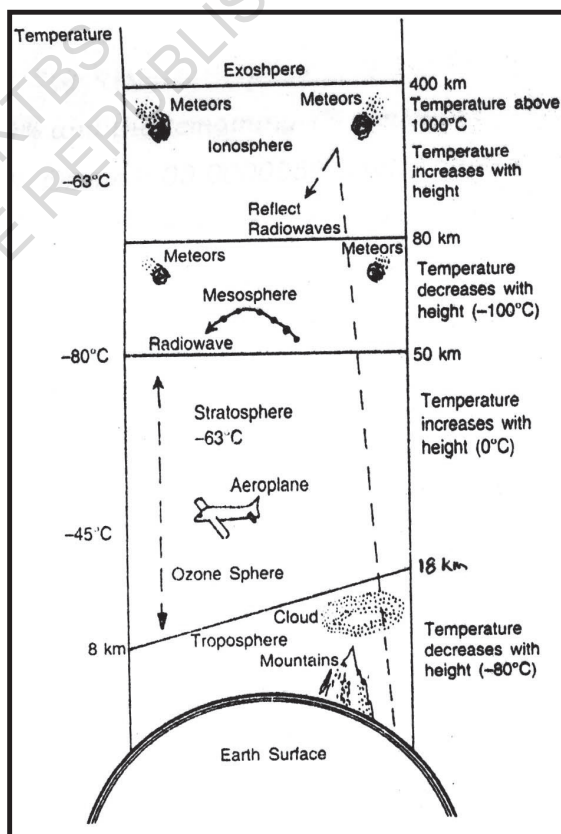
- The meaning, importance, composition and formation of atmosphere.
- About the components of atmosphere, temperature, pressure, winds, humidity, clouds and their functions and effects.
- Analyze the differences between atmosphere and climate.

Do you know how we are protected and helped by the envelope of air ?

Meaning and importance:

Atmosphere is a thin layer of gases, dust particles and water vapour surrounding the Earth. This layer of gases forms a protective boundary between outer space and the Earth's surface. The thickness of the atmosphere is around 1000 kms. The atmosphere is very important for all forms of life on the earth. Different gases of the atmosphere help plants, animals and human beings to prepare their food. The atmosphere traps heat and makes Earth a planet for all living organisms.

Composition of atmosphere: The atmosphere is a mixture of different gases, dust particles and water



Layers of atmosphere

vapour. The important gases in the atmosphere are Nitrogen - 78.08%, Oxygen- 20.94% and the remaining 1% consists of Argon - 0.93%, Carbon dioxide - 0.03%, Ozone - 0.000005% etc. The atmosphere also contains dust particles which help us in the formation of water droplets. The water vapour in the atmosphere is the source of clouds and precipitation. The atmosphere traps heat and energy and has influence on the weather conditions of a place.

Layers of Atmosphere: The atmosphere may be divided into five important layers on the basis of its characteristic features. These are: Troposphere, Stratosphere, Mesosphere, Thermosphere (Ionosphere) and Exosphere.

Troposphere : Troposphere is the lowest layer of the atmosphere. It extends upto 18 kms at the equator and 8 kms near the poles. This layer has all the atmospheric elements such as temperature, pressure, winds, clouds, rainfall etc. All weather changes occur in the troposphere. Temperature and pressure decrease with the increase of altitude.

Stratosphere : Stratosphere is the second layer of the atmosphere. This layer extends upto 50 kms from the surface. It lies between the troposphere and mesosphere. In this layer Ozone is the most important gas which absorbs 'ultraviolet rays' of the sun and protects all forms of life on the Earth. This layer is free from clouds and other important weather phenomenon and provides ideal flying conditions for jet aircrafts.

Mesosphere : Mesosphere is the third layer in the Earth's atmosphere. It extends up to 80 kms from the surface and lies above the stratosphere. In this layer temperature decreases with the increase in altitude. This layer has the coldest temperature in the atmosphere.

Thermosphere : Thermosphere layer lies next to the Mesosphere. In this layer temperature rises drastically. It is also called 'Ionosphere' as the gaseous atoms are ionized due to very high temperatures. The ions found in this layer help in reflecting radio waves.

Exosphere : Exosphere is the top most layer of the atmosphere. In this layer elements of the atmosphere are rare and pressure is extremely low.

Elements of Weather

Weather condition of a place is influenced by various elements such as temperature, pressure, wind, humidity, clouds, rainfall etc.

*The atmospheric condition of a place at a given time is called '**Weather**'. In contrast, the average weather condition of an area over a long period of time is called '**Climate**'.*

TEMPERATURE

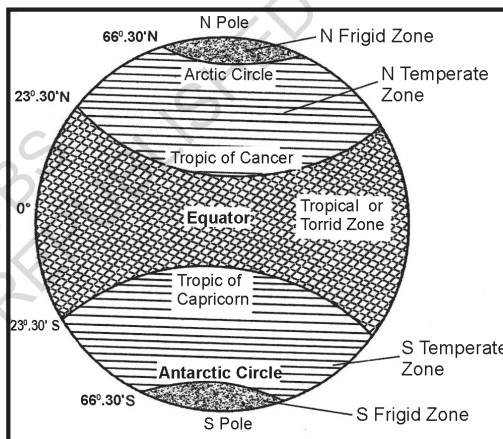
The Sun is the main source of energy to the Earth which supplies heat through insolation. Insolation means incoming solar radiation from the sun to the Earth. Temperature is recorded by an instrument called 'thermometer'. Centigrade and Fahrenheit are the important thermometers used to measure atmospheric temperature. The important factors that influence atmospheric temperature are latitude, altitude or height, distance from the sea, wind, ocean currents, relief, clouds, rainfall etc.

Normal lapse rate : It is the decreasing rate of temperature with the increase of altitude. The rate of decrease is 1°C for every 165 meters or 6.4°C for every 1000 meters of height (1 km).

Inversion of temperature : In some situations temperature also increase with increasing height. This takes place in mountain valleys during long winter nights with clear sky, dry air, no wind and snow covered surface.

Temperature Zones : The distribution of temperature is not uniform on the Earth's surface. On the basis of insolation, the globe is divided into three temperature zones. They are:

Torrid zone : This is the zone of high temperature. This region is found between 0° or Equator and Tropic of Cancer in



Temperature Zones

the north ($23^{\circ}.30'$ N) and the Equator and Tropic of Capricorn ($23^{\circ}.30'$ S) in the south. This region receives direct rays of the Sun.

Temperate zone : This is the region where the temperature is neither very hot nor cold. This region lies between $23^{\circ}.30'$ N to $66^{\circ}.30'$ N (Tropic of Cancer to Arctic circle) and $23^{\circ}.30'$ S to $66^{\circ}.30'$ S (Tropic of Capricorn to Antarctic circle).

Frigid zone : It is the coldest region. This zone is found between $66^{\circ}.30'$ N to 90° N (Arctic circle to North pole) and $66^{\circ}.30'$ S to 90° S (Antarctic circle to South pole). The temperature in this zone is very low due to the slanting rays of the sun. In summer the temperature is slightly high and in winter the temperature is low.

Isotherms : Isotherms are lines drawn on the map or globe connecting places having the same temperature.

Facts file :

Places of highest and lowest temperature

1. Al Aziziya of Libya in Africa has recorded the highest temperature (average $+58^{\circ}$ C) Whereas Verkhoyansk of Siberia has recorded the lowest temperature (average -24° C).
2. In India Ganganagar of Rajasthan recorded the highest temperature in summer (average $+54^{\circ}$ C) and Leh of Ladakh has recorded the lowest temperature (average -10° C) in winter.
3. Vostok of Antarctica is considered as the coldest place (average temperature -89° C) on the Earth.

ATMOSPHERIC PRESSURE

Air has weight and it exerts pressure. This is called atmospheric pressure. Air pressure is measured by an instrument called a Barometer. The unit used to show the pressure is millibar (mb). The average air pressure of the atmosphere at sea level is 1013.25 mb. The atmospheric pressure is affected by many factors such as temperature, rotation of the Earth, altitude, water vapour etc. Temperature is the most important factor that influences atmospheric pressure. The regions which have high temperature record low pressure due to the expansion of air, while the regions of low temperature have high pressure due to the contraction of air. Thus temperature and pressure

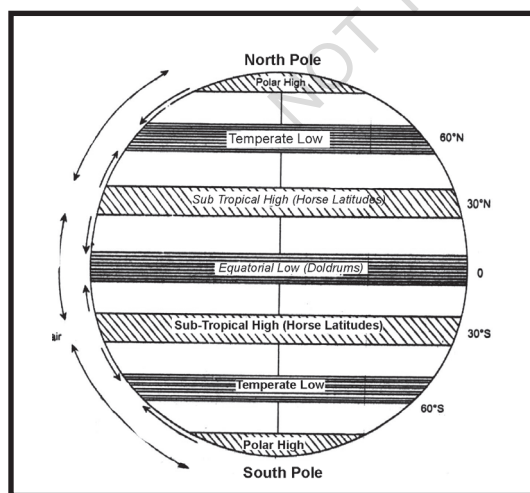
are inversely related. The atmospheric Pressure decreases with the increase in altitude. The amount of decrease is about 34 mb per every 300 meters altitude.

Major pressure belts of the Earth

The pressure on the earth is distributed in the form of belts. There are seven pressure belts. They are,

1. The Equatorial low pressure belt
2. North Sub- tropical high pressure belt
3. South Sub-tropical high pressure belt
4. North -Sub- Polar low pressure belt
5. South Sub-polar low pressure belt
6. North Polar high pressure belt
7. South Polar High pressure belt

Equatorial low pressure belt: The equatorial low pressure belt is a zone of high temperature and low pressure. It lies between 0° to 5° North and South of the equator. This region gets direct rays of the Sun almost throughout the year. Hence air is always very warm and hot. This is a calm region with very little wind. So it is known as 'Doldrum' means 'belt of calm' (equatorial calm). This region is also called Inter- Tropical Convergence Zone (ITCZ) where the trade winds converge.



Pressure belts of the world

Sub-tropical high pressure belts: Sub-tropical high pressure belts are found between 30° and 35° north and south of the equator. There are two sub-tropical high pressure belts. **(a) North sub-tropical high pressure belt:** This belt is found between 30° to 35° north latitudes. This region is also popularly called 'Horse latitudes'. **(b) South sub-tropical high pressure belt:** This belt is found between 30° to 35° of south latitudes.

Sub-polar low pressure belts: Sub-polar low pressure region is found between 60° to 65° north and south of the equator. There are two sub-polar low pressure belts **(a) North sub-polar low pressure belt** (60° north to 65° north). **(b) South sub-polar low pressure belt** (60° south to 65° south). The winds are stormy especially in winter in this belt.

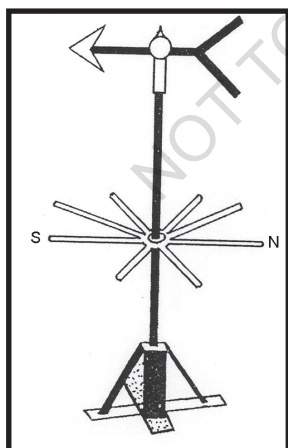
Polar high pressure belts: Polar high pressure belts region is found between 80° to 90° north and south latitudes in both hemispheres. These are extremely cold regions with very high pressure throughout the year.

Isobars: These are imaginary lines drawn on the map or globe connecting places having the same pressure. They are used to show the distribution of pressure on the map.

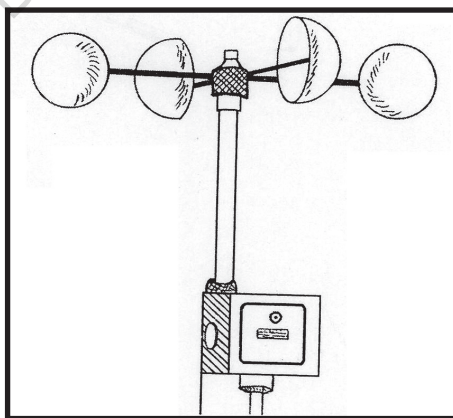
WIND

Wind is the horizontal movement of the air on the surface of the Earth. Wind blows on the Earth due to rotation of the Earth and difference in pressure.

The direction of the wind is shown by an instrument called 'wind vane' or 'weather cock'. 'Anemometer' is used to measure the speed of the wind.



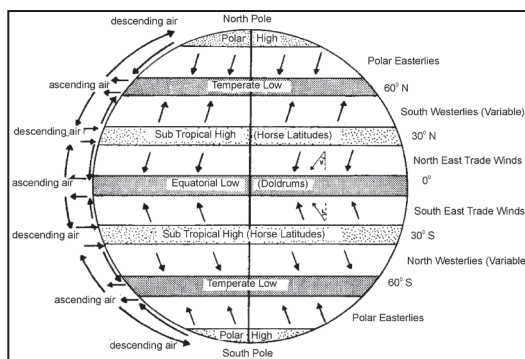
Wind Vane



Anemometer

Types of wind : Winds are classified into 4 major types. They are; Planetary winds, Seasonal winds, Local winds, Cyclones and Anti cyclones.

1. Planetary Winds: Planetary winds are also called 'Permanent winds' or 'Prevailing winds' or 'Regular winds' which blow more or less in the same direction throughout the year. These winds play a major role in climate change, desert formation, guide navigation routes, etc. There are three types of planetary winds. Trade winds, Anti-trade winds and Polar winds.



Planetary Winds

Trade Winds : These winds blow from sub-tropical high pressure belts to equatorial low pressure regions. The trade winds in the northern hemisphere blow from NE to SW direction (North East trade winds) and in the southern hemisphere they blow from SE to NW direction (South East trade winds).

Westerlies or Anti-trade Winds : These winds blow from sub-tropical high pressure belts to sub-polar low pressure belts. These are from south-west to north-east in the northern hemisphere and north-west to south-east in the southern hemisphere. The westerlies of the southern hemisphere are very strong over the oceans. Hence they are called 'Roaring Forties' (40° south latitude), 'Furious Fifties' (50° south latitude) and 'Shrieking Sixties' (60° south latitude).

Polar winds : These are also called Easterlies. These winds blow from polar high pressure belts to sub-polar low pressure belts. They blow from North East to South West in the northern hemisphere and South East to North West in the southern hemisphere. These are the cold dry winds blowing from the polar ice-caps.

2. Seasonal Winds: Seasonal winds are also called periodic winds. These winds change their direction periodically or seasonally. The monsoon winds of India are the typical periodic winds. In India South west monsoon winds blow from SW to NE direction during June to September and North east monsoon winds blow from NE to SW direction from late September to middle of December.

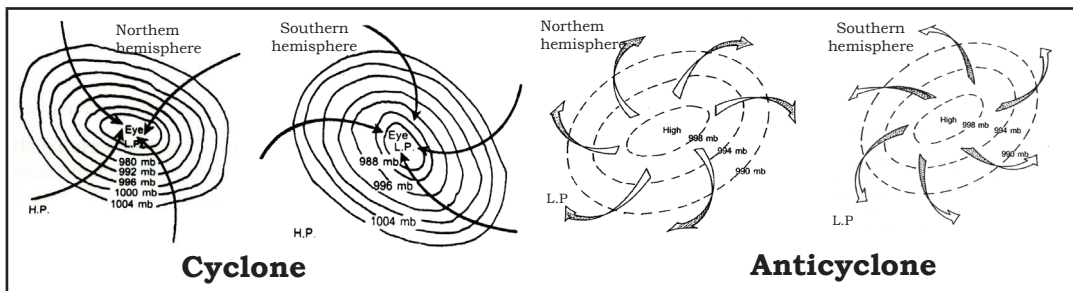
3. Local Winds: Local winds also known as periodic winds are the result of variation in local temperature, pressure, humidity which in turn are attributed to the formation of air currents, crossing mountain ranges, valleys and other relief barriers. The important periodic and local winds are Land breeze, Sea breeze, Mountain breeze (Katabatic winds), Valley breeze (Anabatic winds) and other few winds are Loo (India), Chinook or Snow eater (USA), Fohn (Alps region), Mistral (France), Sirocco (Sahara region), Brick Fielder (Australia), Blizzard (Antarctica) etc.

4. Cyclones and Anti-cyclones: These winds blow due to great variation in pressure. These are temporary but sometimes dangerous and destructive.

a) Cyclones: Cyclone is a small low pressure area in the centre surrounded by high pressure. The winds blow spirally towards the low pressure area. In the northern hemisphere the direction of cyclonic winds is anti-clockwise or counter clockwise and in the southern hemisphere it is clockwise. Cyclones are of two types: • **Tropical cyclones:** These are found in the tropical region. They are very powerful and disastrous. • **Temperate cyclones:** These are found in the temperate region. They are comparatively less strong and less dangerous.

*Cyclones are called by different names in different regions. Japan and China – **Typhoon**, USA and Mexico – **Hurricane**, Australia – **Willy willes**, India – **Cyclone**, Russia – **Whirlpool**. In the last few years Indian coasts have experienced a few disastrous cyclones. Some of them are Bola, Nargis, Nisha, Aila, Laila, Bijli, Jal, Tej, Biparjoy, Mocha, Michaung etc.,*

b) Anti-Cyclones: An anti-cyclone is a high pressure area in the centre with winds blowing outwards, towards the low pressure areas. In the northern hemisphere the direction of anti-cyclone wind is clockwise and in the southern hemisphere it is anti-clockwise.



HUMIDITY

Humidity is the amount of water vapour or moisture present in the air. Humidity is measured by using an instrument called Hygrometer or Psychrometer.

Types: Humidity is expressed in different ways. Important among them are Absolute humidity, Relative humidity and Specific humidity.

- **Absolute humidity:** This refers to the total amount of water vapour present in a given volume of air. It does not take temperature into consideration.

- **Relative humidity:** Relative humidity is the ratio between the actual amount of water vapour present in the air and the amount of water vapour the air can hold at that temperature. It is expressed in percentage.

$$\text{Relative humidity} = \frac{\text{The actual amount of water vapour in the air}}{\text{The maximum amount of water vapour the air can hold}} \times 100$$

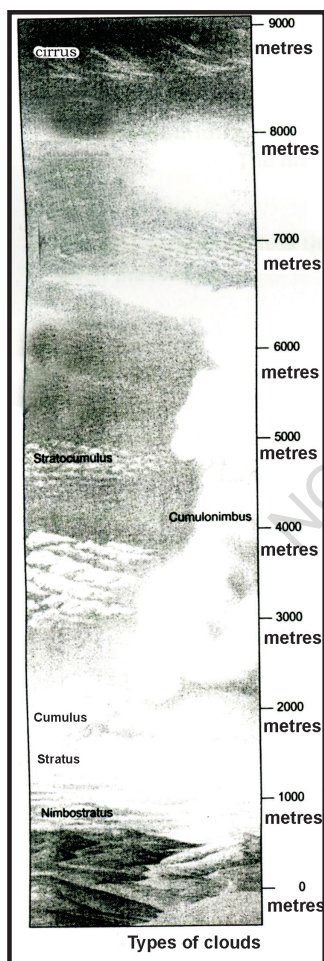
- **Specific humidity:** It is the actual amount of water vapour present in a given mass of air.

CLOUDS

Cloud is a mass of small water drops or ice crystals, formed by the condensation of the water in the atmosphere, usually at a considerable height above the Earth's surface.

Types of clouds: Clouds are classified in to 4 types on the basis of their shapes and heights at which they occur. The important types of clouds are the Stratus, the Cumulus, the Cirrus and the Nimbus clouds.

- **Stratus:** Stratus clouds are usually low clouds occurring at less than 2 km of height. They appear as thin sheets or layers of large extent. Stratus clouds are associated with fair weather.

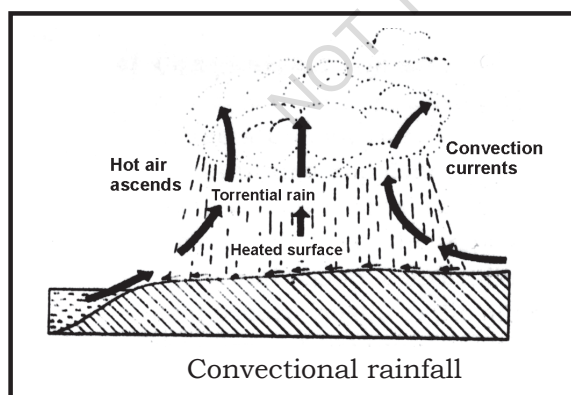


- **Cumulus:** Cumulus clouds are cauliflower-shaped clouds of great vertical extent. The base of cumulus clouds is nearly horizontal, while the top has a dome-shaped appearance. These are popularly called 'wool packs'. They come out with black and white in colours. Cumulus clouds are rain-bearing clouds.
- **Cirrus:** Cirrus clouds are the highest clouds in the atmosphere about 6 kms high. These clouds resemble 'curls of hair', have a feathery or fibrous appearance. They indicate fair weather and often given a brilliant sunset. They look like patches of cotton fibres floating in the air. Their popular name is 'mare's tail' or 'witch's broom'
- **Nimbus:** Nimbus clouds are rain clouds which occur at low levels. These clouds have the shape of stratus or cumulus. They are dark-grey or black in appearance. They cause heavy rainfall or snowfall. The Nimbo-stratus are thick, heavy, rain bearing clouds.

RAINFALL

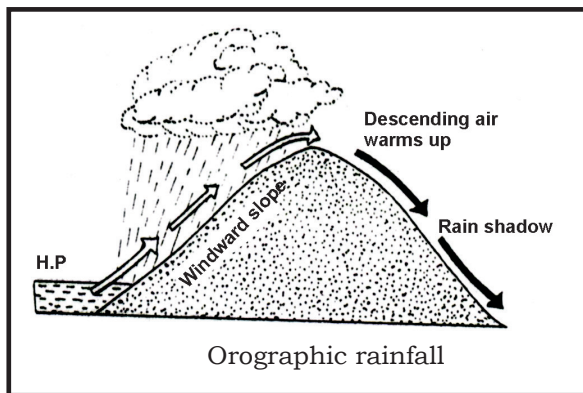
Precipitation in the form of water droplets is called rainfall. The total amount of rain received in a given area during a given time as measured by a rain gauge in MM or inches.

Types of Rainfall: Rainfall is of three types. They are Convectional rainfall, Orographic rainfall and Cyclonic rainfall.



Convectional rainfall: The rain caused by the process of convection is called convectional rainfall. In areas of high temperature, air rises up due to heating. This rising air cools, gets saturated, condensation takes place and later rainfall occurs. Convectional rainfall is very common in the equatorial

region and also in the tropical regions in summer. In the equatorial region, convectional rainfall is called 'afternoon rain', as it occurs mostly in the afternoon. It is accompanied by thunder and lightning.



Orographic rainfall:

Orographic rainfall is also called 'Mountain rainfall' or 'Relief rainfall'. When moisture laden air is obstructed by a mountain barrier, the air is forced to rise up. As the air rises upwards, it cools and gets saturated. Further cooling of this air causes

condensation resulting in orographic or mountain rainfall. The windward side of the mountain receives more rainfall, while the leeward side receives less. The leeward side is generally called the 'rain shadow region' eg., Mangaluru is the windward side and Hassan the leeward side or rain shadow region.

Cyclonic rainfall: In a cyclone the air blows spirally inwards. In the tropical cyclones the air rises upwards in circular movement. So condensation takes place to cause heavy rainfall. The temperate cyclonic rain is also called frontal rain. When the warm air mass and the cold air mass meet, the warm air being lighter is forced to rise over the heavier cold air. The warm air after rising, cools and condenses, resulting in rainfall.

Distribution: The distribution of rainfall on the Earth depends on location and the climatic condition of that region. The most important heavy rainfall areas in the world are the equatorial region, the eastern margins of sub-tropical belts, the western margins between 40° and 60° N and S latitudes. Scanty rainfall regions are the polar areas, the western margins of sub-tropical regions and the tropical and temperate deserts.

Do you know?

1. **Mawsynram** of Meghalaya in India has recorded 1140 cm of rainfall per year. It is considered as the wettest or rainiest region on the Earth.
2. **Agumbe** of Karnataka is called 'Cheerapunji of South India'.
3. **Royli** of Rajasthan in India receives lowest rainfall : 8.3 cm per year
4. **Nayakanahatti** of Chitradurga is considered the driest place in Karnataka.
5. **The Atacama** desert of Chile is the driest region on the Earth. It has not received rainfall for the last 200 years.

Weather and Climate

The atmospheric conditions of a smaller area at a particular time is called weather. For example cloudy, sunny, fine weather, etc. The scientific study of weather is called 'Meteorology'. Climate is the average condition of the atmosphere over a long period of time of a larger area e.g., Equatorial climate, Tropical monsoon climate, Desert climate, Mediterranean climate, Tundra climate etc. The scientific study of climate is called 'Climatology'.

Factors affecting the climate of a place: The factors that influence the climate of a place or region are Latitude, altitude, winds, distance from the sea, distribution of land and water bodies, ocean currents, etc.

Exercises

I Fill in the blanks with suitable words :

1. The two major gases of the atmosphere are _____ and _____.
2. The lowest layer of the atmosphere is _____.
3. The average air pressure of the atmosphere at the sea level is _____.
4. Westerlies is also known as _____.
5. The scientific study of weather is _____.

II Answer the following questions briefly:

6. What is the atmosphere ?
7. Name the important layers of the atmosphere.
8. What is the significance of ozone layer?
9. What is Doldrum? Where is it found?
10. Name the different types of planetary winds.
11. What are local winds? Give any two examples.
12. Mention the different types of clouds.
13. Distinguish between weather and climate.

III Define the following :

- | | |
|-----------------------|-------------------------|
| 14. Ionosphere | 17. Orographic rainfall |
| 15. Normal lapse rate | 18. Climatology |
| 16. Torrid zone | |

IV Terms to remember :

- | | |
|-----------------------------|--------------------|
| 1. Insolation | 4. Roaring forties |
| 2. Inversion of temperature | 5. Nimbus clouds |
| 3. Anemometer | 6. Meteorology |

V Activity :

1. Draw a diagram showing different temperature zones on the basis of latitudes.

ECONOMICS

CHAPTER-14

MEANING AND IMPORTANCE OF ECONOMICS



After studying this chapter you learn :

- Meaning of Economics.
- Importance of studying Economics.
- To define-economic activities, production and factors of production.

Introduction

Economics is a Social Science. It deals with economic activities, problems of individuals, business units, society and that of the global economy. The basic objective of economics is to make this world a better place to live in. Hence the knowledge of Economics is essential for all of us. If so, what is Economics? What is the Importance of Economics ? The objectives of this chapter is to find answers to these questions and know about various issues in Economics.

Indians, from ancient times, have given importance to the study of man's economic activities. Detailed information is available in the Manusmruti about farming, industry, tax, revenue and other economic issues. Kautilya, who lived during the Mauryan period, wrote a book called Arthashastra. This gives detailed explanation of not only political administration but also financial management and general economic system.

Meaning of Economics

The word Economics is derived from the Greek Words **Oikos** and **Nomos**. 'Oikos' means house and 'Nomos' means management. Hence Economics literally refers to 'Management of a household'. However, It is not confined to the study of household management alone. The meaning and the subject matter of Economics has expanded enormously over the period of time.

The subject matter of Economics has been changing from time to time. The Father of Economics, **Adam Smith**, who lived in the 18th century, has said, “Economics is the study of Wealth.”

The Importance of the Study of Economics

There is a financial aspect influencing most of the activities of man. Economics helps us in many ways in our lives. Every citizen should have knowledge of economics. The points mentioned below bring out the importance of the study of economics:

- Economics helps us to understand poverty, unemployment, economic inequality and other related problems that we get to see around us, and to find solutions for those problems.
- When we attempt to satisfy our unlimited wants through our limited income, problems of choice crop up. Economics enables us to find solutions in such situations.
- When producers want to create goods and services, they are faced with questions like – what to produce? How to produce? Whom to produce for? At what price to produce? Knowledge of economics guides them in such situations.
- Economics identifies the reasons for the rise and fall of prices, and the results of such fluctuations. It provides ideas to bring stability in prices.
- Land, water, forests, minerals and other natural resources are limited in quantity. Economics suggests ways to make use of these limited resources with care and efficiency, and also passes them on to the next generation.

In this manner, Economics is very helpful in our daily lives. Thus, the study of Economics is not only enlightening but also profitable.

Study of Economics is not only enlightening but also profitable.

- A.C.Pigou

Economic Activities

We have seen that human wants are unlimited. Goods and services have the capacity to satisfy our wants. This quality is called 'Utility'. For eg - We eat food when we feel hungry. Food has the power to satisfy our needs. We want to drink water when thirsty. Water has the power to quench our thirst.

Wants are the basis of all economic activities

Many of the goods and services that we use everyday are in limited supply, and hence are not available at free of cost. We have to pay money to get them. These goods and services are called economic goods and services. Then how do we get money? We will have to do some work in order to earn money. Man makes use of his skills and labour to earn money, and satisfies his wants by utilizing that money. In order to earn money and wealth, and thereby to satisfy his wants, man engages himself in various activities. These activities are called economic activities.

The most important objective of economic activities is to satisfy human wants. In every society, economic activities are bound by certain rules and traditions. Man's economic activities can be classified into four different kinds:

1. Production Activities : Production activities are those that produce goods and services. For ex: Agriculture, Animal Husbandry, Fishing, Mining, Forest Development, different kinds of industries, Transport, Communication etc.

2. Consumption Activities : Goods and services are produced for consumption. Man satisfies his wants by buying goods and services. All these activities are known as consumption activities.

3. Exchange Activities : The producers produce goods for the consumers. There is a marketing system to supply the produced goods to the consumers. In this system, activities of collection of goods, transportation, selling and buying take place.

4. Distribution Activities : The income that is earned through the production of goods has to be distributed to the various factors of production that have enabled the production. This process involves activities undertaken to determine the price of the factors of production. Steps have to be taken to ensure that the income earned is distributed among all factors in a just manner.

Man is not engaged only in economic activities in his daily life, he engages himself in many activities like social, cultural, political, educational and religious activities too. Sometimes many activities which are not economic in nature become economic activities. For ex: when a teacher gives free tuition at home to students, it is not an economic activity. When the same teacher charges fees for giving tuitions, it becomes an economic activity.

EXERCISES

I. Fill in the blanks with suitable words :

1. The word 'Economics' originates from the Greek words _____ and _____.
2. Kautilya, who was in the Mauryan court, wrote the book _____.
3. The quality of the goods and services which can satisfy man's wants is called _____.
4. The physical and intellectual work that is done in return for money is called _____.

II. Answer the following in a sentence each :

5. What is Economics?
6. Who is identified as the 'Father of Economics'?
7. What are Economic Activities?
8. A student buys a pen and writes with it. What kind of economic activity is this?

III. Answer the following in three or four sentences each :

9. What are man's economic activities?
10. Why do we need to study Economics?
11. How has the meaning of Economics changed from time to time?

IV. Activities :

1. List the economic activities the members of your family are engaged in.
2. Identify the various economic activities of the people around you or your village are engaged in.
3. List the goods that you consume everyday.
4. Observe how farmers decide to grow different types of crops.

BUSINESS STUDIES

CHAPTER-15

MEANING AND IMPORTANCE OF BUSINESS STUDIES



After studying this chapter you learn :

- The objectives of business.
- The meaning and importance of home trade, foreign trade and entrepot trade.
- The features of production and problems of cottage and small scale industries.
- About business ethics.

Business is an important economic activity mainly concerned with production and distribution of goods and services to consumers. Business has two main objectives:

- 1 Economic objectives
- 2 Social objectives

1. Economic objectives : We are under the impression that earning profit is the main objective of business. But it is not so, the sole objective of business includes earning reasonable profit that is sufficient to enable the business to cover the costs and the business man to lead a normal comfortable life. Business supplies goods and services to the consumers and thus creates consumers. It uses the available resources to produce the goods that are sufficient to consumers. It produces such goods that are required according to the changes that take place from time to time. It brings changes in production by adopting new techniques. It also enables the consumers to know about the changes in products through advertisement.

2. Social objectives : Business produces and supplies the goods that are required for the development of a nation. It provides employment to many and pays them fair wages and salaries and helps them to improve their standard of living. Business contributes its share to the economic development of a nation by paying rates, taxes and duties. Business also contributes a fair share for the social welfare of the nation by starting and running schools, colleges, hospitals, stadiums and also by maintaining public gardens etc.

Trade, Industry and Services

Trade is a part of business. It is mainly concerned with buying and selling of goods to the consumers. Trade is divided into two types, they are,

1. Home Trade or Internal Trade
2. Foreign Trade or International Trade

1. Home Trade : Trade within the country is called home trade. It is carried through Retailers and Wholesalers.

Retail Trade : Retailers carry out their trade at places where consumers live. They buy goods from the wholesalers and sell them to the consumers. They render various services to the consumers. Some of them are: they are the last connecting link in the distribution of goods. They supply a variety of goods produced by different producers to the consumers. They store the goods to meet the demand of the consumers. They take the risk of loss in business or loss of goods. They grade the goods and supply according to the tastes of the consumers.

They provide credit facilities to the consumers, give more information about the newly available goods in the market and suggest alternative goods for the particular goods that are not available.

Retail trade is carried out in different ways. The important types are :

- a) Permanent shops
- b) Itinerant or mobile traders.

Permanent shops :
They are opened at a fixed place and carry out trade.

Itinerant or Mobile Traders : They do not have a fixed place to carry on their trade. The important among them are Hawkers, Peddlers, Street vendors and Market vendors.



Permanent Shops

Hawkers : They carry goods on their heads, move from “door to door” and sell their goods. They generally sell only one or two types of goods. e.g. - Vegetables, fruits, flowers etc.



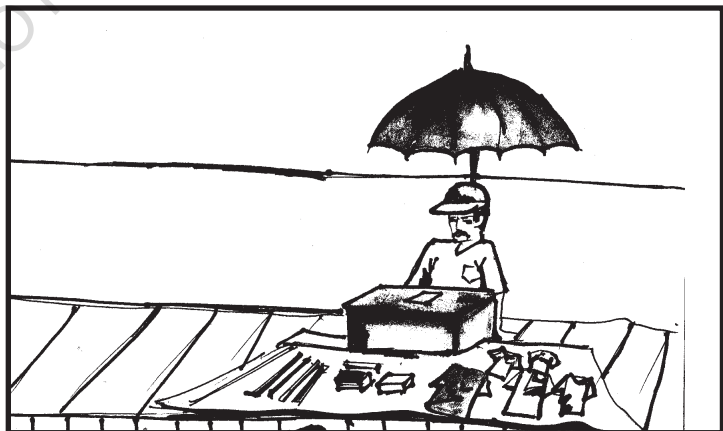
Hawker



Peddler

Peddlers : They carry their goods on wheeled carts and sell them to the consumers at their doors. They generally sell more than one type of goods.

Street traders or Footpath traders : They display goods in busy street corners or on pavements and sell them to the consumers.



Footpath seller

Market sellers (shandy sellers) : Weekly markets take place at villages or towns once in a week. Different traders take their goods to these markets and sell them to the consumers. Another speciality of these weekly markets is that the surrounding villagers bring the goods which they have grown or produced and sell them, Eg. vegetables, eggs, butter, agricultural implements, blankets etc., With the money they get, they buy their requirements. At some places yearly fairs take place and here too the traders gather and sell the products to the consumers.



Market sellers (shandy sellers)

Wholesale Trade : Wholesale traders buy goods in large quantities from producers and sell them to the retailers in small quantities. Generally, they deal with one or two types of goods.

1. They help the retailers in many ways such as supplying goods to the retailers in small quantities.
2. They provide credit facility to the retailers, whenever required.
3. They advertise for goods on behalf of the retailers.
4. They supply market trends to the retailers.
5. They do not keep high margin of profit.
6. They render some services to the producers such as market trends, prices and taste of the consumers.

7. Advertise on behalf of the producers.
8. They also provide storage facilities for goods.

2. Foreign Trade : The trade between two countries is called foreign trade. Foreign trade can be classified into three types. They are: Import, Export and Entrepot trade.

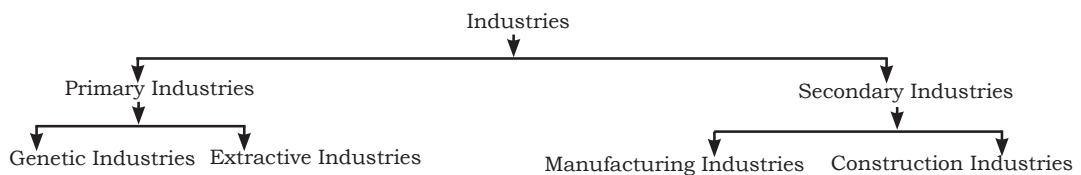
- a) **Import :** Import refers to a country buying goods from other countries for its use.
- b) **Export :** Export refers to a country selling its goods to other countries for their use.
- c) **Entrepot :** Entrepot Trade refers to buying of goods from one country with a view to sell it to other countries. Singapore and Middle East countries are the best examples for entrepot trade. Nowadays many countries carry out entrepot trade.

Need for Foreign Trade : No country in the world is self sufficient in all the natural resources. Some countries have plenty of natural resources. Using the available natural resources they produce more goods than they require and the excess is exported to other countries. In the same way some countries have deficit of some natural resources and depend on other countries for their requirements and import them. Thus there is a great need for foreign trade. The need for foreign trade is increasing day by day. It also helps to foster friendship among the countries.

Industries

Industry is an economic activity. It is concerned with production of goods, extraction of minerals and also providing some services. Industries may be classified into two main types. They are : Primary Industries and Secondary Industries.

The following chart shows the further classification of Industries.



Primary Industries

These industries produce goods by using natural resources. e.g. - agriculture, fishing, dairy farming, mining etc. These industries are further divided as : genetic industries and extractive industries.

a) Genetic industries : These industries are engaged in reproduction of different crops, plants and animals. They help to increase the wealth of a nation. e.g. - horticulture, dairy farming, poultry farming, etc.

b) Extractive Industries : They are engaged in extracting different raw materials and ores from the earth. (It is also called non-renewable industry) e.g. - Extraction of ores, drilling of oil wells etc.,

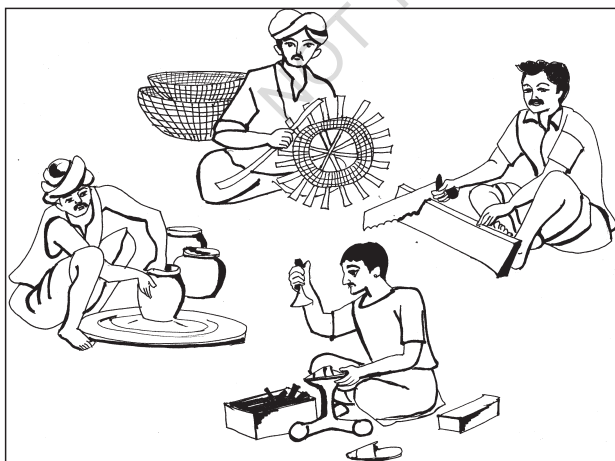
Secondary Industries

They are labour oriented industries. They are further divided into manufacturing industries and construction industries.

a) Manufacturing Industries : These industries are engaged in converting raw materials or semi finished products into finished products. They are mainly labour oriented and supply finished products to consumers, e.g. - Converting iron ore into steel, Sugar out of sugarcane etc.,

b) Construction Industries : They are engaged in construction of roads, canals, bridges etc. These industries help in the quick development of economic activities like - transport and communication etc.

Cottage and Small Scale Industries



Cottage Industries

Cottage industries are also called household industries. They are carried out by craftsmen in their own houses with the help of family members or apprentices (persons who like to learn work). They are mainly concentrated in the villages and produce goods mainly for the local markets. Carpentry, smithy, carpet weaving, pottery, blanket making, stone carving etc. are some examples.

Small scale industries These are organized on a small scale in a particular place (sheds). They use electric power and some machines. They employ labourers and adopt modern techniques. Chemical industry, manufacture of engineering goods, shoes, bicycles, fans, radios, sewing machines, soaps, garments are some examples for small scale industries. The goods are manufactured both for local and external markets.

Services for smooth conduct of business.

For the smooth conduct of business the auxiliaries to trade came into existence. They are also called aids to trade or services to trade. There are some hindrance to transport goods from the producers to the consumers. The important hindrances are hindrance of place, hindrance of risk of loss, hindrance of time, hindrance of finance, hindrances of knowledge etc. To overcome these hindrances the following aids to trade have come into place.

1) Hindrance of place- Transportation : To overcome the hindrance of place the services of transportation are used. Road transport, Railways, water transport and air transport are different media. These media help to reach the goods from producers to the traders and from traders to the consumers.

2) Financial services – Banks : In the distribution of goods from the producers to the consumers there is a hindrance or problem of finance. The supply of finance is required at all stages. Money is required to exchange media. These problems are solved by banks. Banks provide finance to the traders and serve to conduct the business smoothly.

3) Hindrance of Loss - Insurance companies : While moving goods from the producers to the consumers or while the goods are stored in warehouses, there is a problem of damage or destruction. To overcome this hindrance insurance facilities are available. The insurance companies help the loss incurred by fire or water or that caused by natural calamities and thus help for the smooth conduct of business.

4) Hindrance of Time - Storage : The production of goods and their consumption take place at different times. To supply goods to consumers whenever they require them, they have to be stored. For this purpose there are warehouses. These warehouses are scientifically constructed and many warehouses have cold storage facilities also.

5) Hindrance of Knowledge- Advertisement : While distributing goods to the consumers, the knowledge about the goods has to be given to the consumers. Even when new goods are introduced into the market knowledge about them is also required or knowledge about alternatives is also to be given to the consumers. For all these purposes advertising services are very useful.

Business Ethics

We are under the impression that earning profit is the main objective of business. But it is not so, The objective should be to include reasonable profit and to enable the business to cover the cost. Trade and commerce are perhaps the older traditional occupations. Traders supply goods to the consumers. They supply essential commodities. They are supposed to keep marginal profit to cover the cost of business. By doing so ethical principles in the business are followed. But it is unfortunate that greed and profiteering have entered into business. To earn more profits, some antisocial practices are followed, and some of them are-adulteration, charging excess or abnormal rates, using false weights and measures, creating artificial scarcity, hoarding the goods and carrying out black marketing etc. These are unethical business practices. By such acts people suffer untold miseries. Such unethical practices should be avoided.

In our country the Government has introduced a Public Distribution System to avoid such practices. (Supplying essential commodities through fair price shops). To maintain the standard of goods and essential commodities the government has opened an institution - Bureau of Indian standards. ISI and AGMARK marks are printed on goods and commodities to certify their quality etc... Every industrial product must have a seal on its cover pack, the quantity, the date of manufacture, date of expiry, Maximum retail price (MRP). It is a legal mandatory provision. The government has also opened Janatha bazaars, consumer co-operative societies etc. to supply essential commodities to the people. Despite these measures, business becomes public cheating, in the absence of business ethics.

It cannot be imposed forcibly. It should come from within. Every businessmen should inculcate the principle of public welfare in the goal of business.

EXERCISES

I. Fill in the blanks with appropriate words :

1. The best example for Entrepot trade is _____.
2. Cottage industries are mainly concentrated in _____.
3. The manufacture of chemicals is carried out in _____ industries.
4. The sole objective of business should be earning _____ profit.
5. To safeguard the quality of goods _____ institution has been started.

II. Answer each of the following questions in two to four sentences :

6. Which are the different types of mobile shops ?
7. Who are wholesalers?
8. Name the three types of foreign trade.
9. Mention the important goods produced by cottage and small scale industries.
10. Which organizations overcome the hindrance of place and risk ?
11. Mention the antisocial activities of traders to earn more profit.
12. What are the steps taken by the government to overcome the anti-social practices in business ?

III. Answer each of the following questions in eight to ten sentences :

13. What are the economic objectives of business ?
14. What are the social objectives of business ?
15. Mention the services rendered by retail traders.
16. List out the different retail traders and write two/three sentences on each of them.
17. Explain briefly the two types of Industries.
18. What is the need of foreign trade to a country ?

IV. Activity :

1. Visit weekly market near your place and learn how buying and selling is carried on there and write an essay.

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