Open Basic Education Course
Environmental Study (A-102)
Level ‘A’

1. **Rationale**
   All human beings desire to have a good and fulfilling life. We hope for a peaceful and joyful present and an even better tomorrow. We aspire for good health and happy family life. This happiness makes us capable to understand the society better. The process of learning can happen at any point in our life. This course aims at broadly covering the concept of human existence, life and environment, hygiene, family and kinship relations, respect for women and elderly, social environment, festivals, planets, weather, our basic needs, balanced diet, modes of transportation and communication etc. this course also deals with current issues like right to education, right to information, consumer rights, MNREGA etc.

2. **Prerequisites for the course**: 
   A learner entering this course is expected to have following prerequisites-
   - To be able to read text written in simple language (language used in day-to-day life).
   - To be able to acquire knowledge about his/her environment, familial and social ties and to share this knowledge with others.
   - To be curious about new developments and study with utmost effort.

3. **Objectives**: 
   The general and specific objectives of the course are as following-

3.1 **Specific objectives**: 
   On successfully completing this course the learners will be able to-
   - Increase their knowledge regarding family, society and environment.
   - Employ the acquired knowledge from different topics/subjects in their present and future life at home and work place, at individual and community level for benefit of all.
   - Develop critical thinking about problems faced by the society and become more aware of the problems in society. They will also be able to understand the reasons behind these and their own personal problems. They will also be able to able to find new ways to improve their and resolve their problems;
   - Well equipped to enter the mainstream education.
   - Develop a scientific outlook.
3.2 General Objectives-
After successful completion of this course, learners will be able to:

- Elaborate on right to education, right to information, consumer rights etc.
- Explain about schemes like MNREGA.
- Identify the national symbols.
- Explain about the national festivals and their significance.
- Identify and use different modes of transportation and communication and their benefits.
- Gain awareness about bodily health and hygiene.
- Explain about benefits of balanced diet.
- Carry out their responsibilities towards children as parents/guardians.
- Execute their role in conservation of environment.
- Differentiate between stars and planets.
- Scientifically explain the change in day cycle (night and day) and changes in seasons.
- Relate to their social environment in a clear way.
- Explain the role of family and community in development of the society.
- Emphasize the importance of water conservation and put efforts towards it.
- Acquire and manifest language expertise in terms of speaking, writing and reading.

4. Brief Introduction of the Course-
This course has been developed in simple language and instances and examples in the lessons are taken from everyday life. It will be offered through distance learning mode. The entire course has been divided into 12 lessons. Each lesson has been divided into different sections on the basis of the subject being dealt in it. This will make studying the lessons easier for the learners. As the course is being offered through distance mode therefore self assessment techniques have been used in the lessons.

5. Course Structure-
This course in total comprises hundred hours (100 hours) of study. It has been divided into twelve lessons (12 lessons). Division of the course on the basis of study hours and marks is as follows-

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Lesson</th>
<th>Time</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The Concept of Family &amp; Kinship Relations</td>
<td>7 hours</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>Our Social Environ</td>
<td>7 hours</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>Our Festivals &amp; Celebrations</td>
<td>6 hours</td>
<td>8</td>
</tr>
<tr>
<td>4.</td>
<td>The Concept of Environ</td>
<td>6 hours</td>
<td>8</td>
</tr>
<tr>
<td>5.</td>
<td>Conservation of Environ</td>
<td>6 hours</td>
<td>8</td>
</tr>
</tbody>
</table>
6. The Sun, Moon, Stars, Night-Day & Seasons | 10 hours | 8
7. Our Basic Necessities | 6 hours | 8
8. Food | 8 hours | 10
9. Health & Hygiene of External Organs | 10 hours | 8
10. Transportation & Communication | 10 hours | 8
11. National Symbols | 12 hours | 8
12. Our Social-Economic Environ | 12 hours | 10
Total | 100 hours | 100

6. Course Description-

Lesson-1: The Concept of Family & Kinship Relations

1. The Concept of Family
2. Importance of Kinship
3. Respect for Women in Society
4. Being Sensitive and Respectfully Helpful towards Persons with Disability and the Elderly

Lesson-2: Our Social Environ

1. Respect for Different Occupations and People Involved in Them
2. Public Conveniences in Vicinity
3. Role of Family, Neighbourhood and Community in Social Development

Lesson-3: Our Festivals and Celebrations

1. Significance of Social & National Festivals

Lesson-4: The Concept of Environ

1. Features of Environ
2. Material and Living Environ
3. Categorization of Objects of Basis of their Qualities- Living (Animals & Plants), Non-Living (Natural/Manmade)
4. Qualities of General Plants & Animals

Lesson-5: Conservation of Environ

i. Useful Animals- Milch cattle, Animals reared for Meat, Eggs, Wool, & Silk, Animals used for transportation of goods & people, Pet Animals.
ii. Main parts of Plants- Roots, Trunk, Stem, Leaves, Flower, & Fruit. Various uses of Plants, Environmental Balance, Food chain, Food Net.
iii. Environment Conservation- Significance of Water, Forest and Land and their Conservation

Lesson-6: The Sun, Moon, Stars, Night-Day & Seasons

1. Our Solar System: The Sun, Moon & Stars their importance and Relation with each-other. Myths and Superstitions related to them & alleviation of these
2. The cycle of Night-Day & Change in Seasons

Lesson-7: Our Basic Necessities


Lesson-8: Food

1. Importance of Food for Body- Source of energy for work and sustenance, Source for Growth and Repair, Shield against Diseases and Germs.
2. Different Nutrients in Food and their Sources
3. Balanced Diet
4. Food-Hygiene, Upkeep & Safety
5. Drinking Water- Importance of water for Healthy Body, Sources of Water and ways of Water Purification

Lesson-9: Health & Hygiene of External Organs

2. Health, Hygiene and Safety Measures for External Organs

Lesson-10: Transportation & Communication

1. Importance of Transportation & their Sequential Development
3. Various ways of Transportation and their Significance
4. Communication through various signs in Humans & Animals and its Significance

Lesson-11: National Symbols

2. National Anthem and National Song and their role in National Unity
Lesson-12: Our Social-Economic Environ

1. Concept and Significance of Globalisation
2. Right to Education- Introduction & Major Features
3. Right to Information- Introduction, Major Features, Fee & Rules of providing Information

7. Scheme of studies-
This course is essentially for self-study. The course material has been prepared keeping in mind the social, psychological & intellectual conditions of the intended learners. As the course is designed for self-study therefore at the end of each lesson, questions related to the lesson are given, so that learners are able to develop concepts as well as learn to express them well through writing. Learners also have the option of attending contact classes at their AIs, learners will be able to clarify any subject related doubts in these classes as well as discuss them with their peer group. Learners can also clarify their subject related problems at literacy centre and adult education centre.

8. Scheme of Evaluation
8.1. Self-Assessment
Learner can keep doing their evaluation throughout the course. For this purpose a scrutiny/ question paper is provided after every four lessons, which contains questions related to those four lessons. Learners can answer these questions and then evaluate their answers by looking at the correct answers provided at the end. This is the self- evaluation method adopted for this course.

8.2. External Assessment
After completing the course the learner will appear in the external evaluation. The method for this evaluation is written examination, which will consist of 100 marks. The duration of this exam will be three hours and question paper will comprise questions based on lessons and concepts in them.
Open Basic Education Course  
Mathematics (A-103)  
Level- ‘A’

1. **Rationale**  
Mathematics is a very important subject of the Open Basic Education (Adult) course level ‘A’ programme. By learning about concepts of Mathematics the learner acquires the ability to tackle the known and unknown challenges in the world around. Mathematics helps in development of objective, critical and analytical thinking. At this level study of Mathematics will make the learner aware of principles of Mathematics involved in everyday life and various transactions that we make. The present course has been designed to enable learners in applying concepts of Mathematics to real life situations.

2. **Objective**  
After completing this course successfully the learners will be able to-

- Express the fundamental concepts, theory, signs, equations, and formulae and related things
- Explain the principles of measurement by experiencing them in everyday life and to be able to use them in their life.
- Solve queries put in words in form of Mathematical equations
- Develop positive outlook towards Mathematics and its concepts
- Appraise the use of Mathematics in everyday life.
- Have strong base in Mathematics at this level
- Cultivate self-confidence so that they can play a positive role in education of coming generations.

3. **Course Structure**  
The Open Basic Education (Adult) course level ‘A’ in Mathematics has been divided into seven lessons. All the lessons contain various topics. Number of lessons, suggested study time and marks allotted to each lesson is as following-

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Lesson</th>
<th>Study Time</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Learning Numbers- Reading, Writing, Making &amp; Recognizing</td>
<td>15 hours</td>
<td>15</td>
</tr>
<tr>
<td>2.</td>
<td>Addition &amp; Subtraction of Numbers</td>
<td>20 hours</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>Multiplication</td>
<td>10 hours</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Division</td>
<td>10 hours</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>Fraction</td>
<td>10 hours</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Mensuration</td>
<td>15 hours</td>
<td>15</td>
</tr>
</tbody>
</table>
4. Course Description

Lesson-1: Learning Numbers- Reading, Writing, Drawing & Recognizing
Learning to read, write and understand numbers from 1-9, 10-99, 100-999 and till 1000 in numerals and words. Understand the value of each digit on the basis of its location in the number consisting of two, three or four digits. Learning to write read and understand three digit numbers in ascending and descending orders.

Lesson-2: Addition & Subtraction of Numbers
Addition and subtraction of numbers, its significance and usefulness in our daily life. Addition and subtraction of single digit number. Addition of two and three digit numbers with and without carry over. Subtraction of two and three digit numbers with loan. Simple addition and subtraction related to money, use in everyday life.

Lesson-3: Multiplication
Usefulness and significance of multiplication in our everyday life. Understanding multiplication as many additions (addition after addition). Learning to write and understand multiplication tables of numbers 1 to 10. To multiply single digit number with single digit number, two or three digit numbers with single and two or three digit numbers (where result of multiplication is less than 1000).

Lesson-4: Division
To understand division as subtraction again and again. To be able to divide two or three digit numbers with one digit number. To know and understand the use and significance of division in our daily life.

Lesson-5: Fractions
To understand use and significance of fractions in our daily life. To understand equal portions of an object as part of one whole. To understand whole object in terms of fractions of different proportion. To be able to understand, read and write fractions.

Lesson-6: Mensuration
To measure length in terms of centimeters, meters and kilometers, to measure weight in terms of grams and kilograms and to measure liquids in terms of milliliters and liters.

Lesson-7: Geometrical Structures
Meaning and use of geometry, basic units of geometry, knowledge of figures of rectangle, square and triangle on a plain surface, solid objects and volume, density,
cylinder, hexagon and circular objects. Making designs on plain surface and models from solid objects. To be able to appraise the role of designs in making objects attractive. To be able to draw lines and other geometrical designs with help of instruments and pencil.

5. **Scheme of studies**

   This course is essentially for self-study. The course material has been prepared keeping in mind the social, psychological & intellectual conditions of the intended learners. As the course is designed for self-study therefore at the end of each lesson, questions related to the lesson are given, so that learners are able to develop concepts as well as learn to express them well through writing. Learners also have the option of attending contact classes at their AIs, learners will be able to clarify any subject related doubts in these classes as well as discuss them with their peer group. Learners can also clarify their subject related problems at literacy centre and adult education centre.

6. **Scheme of Evaluation**

   6.1 **Self – Assessment**

   The learner will be able to assess him/her self throughout the course. For this purpose after every lesson an exercise is given, which contains questions related to that lesson. The learners will answer those questions and then evaluate them with the correct answers for those questions given in the end. For practice more practice papers are provided, the learners will answer them and then check them with correct answers. This is the self-evaluation technique employed for this course.

   6.2 **External Assessment**

   After completing the course the learner will be subjected to external evaluation. The method for this evaluation is written examination, which will consist of 100 marks. The duration of this exam will be three hours and question paper will comprise of questions based on lessons and concepts in them. There will be objective questions, very short answer questions and short answer questions.
1. **Rationale**
   India is a rapidly growing and developing nation. The growth should be multifaceted and meaningful for all. With the advent of computers the world moved to a new age-cyber age. The unprecedented amount of growth that the world has seen since information technology revolution is unparalleled in history. Computers have taken over almost all spheres of human existence be it Offices, Homes, Hospitals, Railway stations, Universities or Schools. Therefore it is imperative for all of us to have computer skills, if not advanced at least basic skills, so that we are able to handle computers properly and for our benefit. This course in basic computer skill is centered on knowledge about computers and application of that knowledge in everyday life.

2. **Prerequisites for the course**
   Before entering this course the learner is expected to –
   - Be curious and interested in acquiring skills related to computers.
   - Be desirous of using the computer skills learnt in the course in everyday life.

3. **Objectives**
   The general and specific objectives of this course are as follows-

   3.1 **General Objectives**
   By completing this course the learners will be able to independently deal with computers and know about various parts of computers. They can be able to use a computer to perform basic tasks that a computer can do.

   3.2 **Special Objectives**
   After completing this course successfully the learners will be able to-
   1. Identify various parts of computer
   2. Demonstrate the basic functions of a computer
   3. Recognize various input and output instruments of computer
   4. Use paint, brush and play games on computer
   5. Practice and work on word processing software

4. **Brief Description of the Course**
   This course has been divided into six lessons. Each lesson explains various parts of computer, its uses and applications using that knowledge.
5. **Course Structure**

This course comprises of total 100 study hours. It has six lessons. The course is divided on the basis of study hours and marks allocation as following-

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Lesson</th>
<th>Study Time</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction to Computer</td>
<td>20 hours</td>
<td>20</td>
</tr>
<tr>
<td>2.</td>
<td>Functioning of Computer</td>
<td>15 hours</td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td>Input, Output &amp; Storage Devices</td>
<td>15 hours</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>Operating System</td>
<td>20 hours</td>
<td>20</td>
</tr>
<tr>
<td>5.</td>
<td>Paint, Brush &amp; Computer Games</td>
<td>15 Hours</td>
<td>15</td>
</tr>
<tr>
<td>6.</td>
<td>Word Processing</td>
<td>15 hours</td>
<td>15</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100 hours</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

6. **Course Description**

**Lesson -1: Introduction to Computer**

Introduction to Computer, qualities, Usage, Development, types of Computer, starting and shutting down a computer, precautions to be taken while using a computer for maintenance and upkeep.

**Lesson-2: Functioning of Computer**

What is computer software and hardware, different software used in computers, different languages of computer, and lexicon of computer.

**Lesson-3: Input, Output & Storage Devices**

Input device and its types, Output device and its types, Printer and its types, Speaker and plouters.

**Lesson-4: Operating System**

What are Operating System, How to work on operating system, different parts of desktop, and making file folder and up folder.

**Lesson-5: Paint, Brush & Computer Games**

What are paint and brush application, how to open paint-brush application on computer, different tools for paint-brush, making pictures and colouring them on paint-brush, saving the file, opening and closing, playing games on computer.

**Lesson-6: Word Processing**
What is word processing programme, opening and closing word processing programme, typing text, making corrections in typed text, formatting the text, saving text as file or document, closing the document, opening already existing files.

7. **Scheme of Study**
This course is essentially for self-study. The course material has been prepared keeping in mind the social, psychological & intellectual conditions of the intended learners. As the course is designed for self-study therefore at the end of each lesson, questions related to the lesson are given, so that learners are able to develop concepts as well as learn to express them well through writing.

Learners also have the option of attending contact classes at their AIs, learners will be able to clarify any subject related doubts in these classes as well as discuss them with their peer group. Learners can also clarify their subject related problems at literacy centre and adult education centre.

8. **Scheme of Evaluation**

8.1 **Self-Assessment**
Learner can keep doing their evaluation throughout the course. For this purpose a scrutiny/question paper is provided after every four lessons, which contains questions related to those four lessons. Learners can answer these questions and then evaluate their answers by looking at the correct answers provided at the end. This is the self-evaluation method adopted for this course.

8.2 **External Assessment**
After completing the course the learner will be subjected to external evaluation. The method for this evaluation is written examination, which will consist of 100 marks. The duration of this exam will be three hours and question paper will comprise of questions based on lessons and concepts in them, as well as on general understanding. There will be objective questions, very short answer questions, short answer questions and long answer questions.