ENVIRONMENTAL AWARENESS AMONG 5th STANDARD STUDENTS OF HAMIRPUR DISTRICT IN HIMACHAL PRADESH

A

PROJECT

Submitted To

RAJ RAJESHWARI EDUCATION SOCIETY, MANSUI, VILLAGE CHORAB, P.O. BHOTA, TEHSIL BARSAR, DISTRICT HAMIRPUR HIMACHAL PRADESH-176041

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CERTIFICATE

It is hereby certified that the research work incorporated in the present Project entitled, **" Environmental Awareness Among 5th Standard Students of Hamirpur District in Himachal Pradesh"** was conducted by Mrs. Jyoti Bala (Lecturer in Education) & Mr. Gulshan Thakur (Lecturer in Education) in the capacity of principal investigator and investigator. This Research Project is their own original work. They are employees of Raj Rajeshwari College of Education, Governed by Raj Rajeshwari Education Society, Village Chorab (Mansui), P.O. Bhota, Tehsil Barsar, District Hamirpur (HP) - 176041. The said Project was financed by Raj Rajeshwari Education Society and submitted to us after completion on dated March, 30, 2024 and hence approved by Raj Rajeshwari Education Society.

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Kulbir Singh

Secretary

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Place: **(Jyoti Bala)** **(Gulshan Thakur)**

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INTRODUCTION

One of the most essential tools for human existence on planet is the environment. The environment is both a source of nourishment and a means of survival for all of us. Living would be impossible without air, water, and land. Environmental problems are a worldwide issue that should be addressed properly. Environmental challenges have multiplied in recent years as a result of a growing human population and developments in every sector. Humans' thirst for technology innovations and changing lifestyle habits has create a serious risk to the planet, and so as a consequence, pollution level has increased at an alarming speed. Environmental awareness is essential for preserving and maintaining a healthy environment. By imparting environmental education, environmental awareness can be promoted. Students and the community at large won't be encouraged to conserve natural resources and look for both local and global remedies to environmental problems until they are made aware of the issues. Environmental Education and Awareness plays a significant role in encouraging and enhancing people's participation in activities aimed at conservation, protection and management of the environment, Development has paved the path for rise in the levels or standards of living but it has simultaneously led to serious environmental disasters. Environmental education means the educational process dealing with man's relationship with his natural and manmade surroundings. It should aim not merely at imparting knowledge and understanding of man's total environment but also at including skills, attitudes and values necessary to understand and improve the biosphere and the troposphere. Environmental education is the process of recognising values and classifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings.

ENVIRONMENT

The word Environment is derived from the French word 'Environ' or environer meaning 'around' 'round about' 'to surround' 'to encompass' these in turn originated from the old French words 'Virer' 'Viron' (with prefix en)

which means a ‘circle around’ the ‘country around.’ (Young in Environmental Encyclopedia, 2003).

The concept “Environment” was introduced in Ecology by biologist Jacob Van Uerkkull (1864 1944), to denote those aspects of the world surrounding our organisms that affect our animals’ organs of sensation and actions and produce a specific behaviour of the animal. While the dictionary of environmental terms defines environment as the region surrounding or circumstances in which anything exists, everything external to the organisms. From biological point of view environment can be defined as nature’s laboratory for experiments on ecological succession and organic evolution. Environment is the complex of physical, chemical and biotic factors that act upon an organism or an ecological community and ultimately determine its form and survival (Encyclopedia Britannica, 1993). The Encyclopedic dictionary of Environment change (2003) defines Environment as the complex interaction of elements and processes that surrounds and support life. All organisms exist in an environment (usually on the Earth’s surface) that may be considered as consisting of Abiotic and Biotic factors. There are reciprocal interactions between an organism and its environment which normally include other organisms.

According to National Environment Management Act 107 of 1998: Environment means the surroundings within which humans exist that are made up of:

1. The land, water and atmosphere of the earth.
2. Microorganisms, plant and animal life
3. Any part of combinations of (1) and (2) and the inter relationship among and between them.
4. The physical, chemical, aesthetic and cultural conditions of the foregoing that influence human properties and wellbeing.

For a living organism, its environment includes all the living and non-living objects which interact with it and affect it continually. The interaction is dynamic in nature and affects both the reactants; the organisms and the environment. In case of human beings sometimes socio cultural environment is included (Saxena 1996).

A most comprehensive definition has been offered by International Conference on EE, Tbilisi, Stockholm Conference on Human settlement, the World Conservation Strategy, etc. Environment in this context is considered to be a "whole set of natural and social systems in which man and other organisms live and from which they draw their sustenance". This concept embraces the natural and manmade resources and products whereby human needs are satisfied.

Environment can be classified into two main parts.

i. Natural Environment
ii. Manmade Environment

i. Natural environment has two main components.

- Abiotic components
- Biotic components

Abiotic components or non-living elements

- Inorganic substances like nitrogen, calcium, phosphorus, hydrogen, carbon dioxide and oxygen taken up by plants with the help of sunlight and converted into food.
- Organic substances include carbohydrates, proteins, fats which are taken in the form of inorganic materials from the food source. These are again sent back to the environment after decomposition by decomposers.
- Physical factors are temperature, rainfall, wind, humidity, soil and light energy, which are used by the plants for the preparation of food.

Other Abiotic components are lithosphere (Land or soil) Hydrosphere (Water), Atmosphere (Air).

The Biotic components, biosphere or living organisms comprises of all living beings plants and animals including man. These are of three main groups.

- Autotrophs or producers or plants which produce their own food.
- Heterotrophy or consumers or animals which depend on green plants for the source of food.
- Decomposers or saprotrophs (bacteria and fungi) which are microorganisms which decompose the complex compounds in the dead organic matter of plants and animals and again recycle the elements into the

environment. Every organism including man depends on other organism .It affects and in turn gets affected by other organisms.

ii. Manmade environment

The man-made or socio-cultural environment is mainly the artificially created living conditions due to planned manipulations by man. It consists of everything around which is developed by man through his tools, skills and institutions. The learned behaviour acquired by man in the form of traditions, customs, values, morals, norms and modes determines his socio- cultural environment. This component of environment mainly includes roads, buildings, croplands, villages, cities, factories, irrigation canals and means of transport. Social, cultural and economic need affect and in turn get affected by the natural environment.

Environmental Issues

In the last 100 years, human beings have abused Planet Earth on an unprecedented scale. The air, water and land of the planet are becoming over used and polluted to the point where the threat of a large scale environmental crisis is a real possibility. As Oskamp stated in a 1995 JSI (Journal of Social issues), "In the epoch of history there is one danger that stands out as the most urgent and serious threat to the future of humanity - the threat of ecological disaster" (Oskamp, 1995). Indeed it is difficult if not impossible to find any part of the natural environment of this planet that has not been affected by human beings activity. If life on this planet is to continue as we know it, human beings must learn to balance growth and technological development with the resource and capacity of the planet. As we move into the 21stcentury the impact of human behaviour on the natural environment is becoming readily apparent. Resources are becoming less abundant, space is becoming more limited,and pollution of air, water and land are beginning to have a direct impact on the inhabitants of the planet. The most serious problems that human beings now face are global: Unchecked population growth in many parts of the world, acid rain, the shrinking of tropical rain forests and other great sources of species diversity, the pollution of the environment, disease, social strife, the extreme inequities in the distribution of the earth's wealth, the huge investment of human intellect and scarce resources in preparing for and conducting war, the

ominous shadows of nuclear holocaust. They went on to suggest that science, energetically pursued can provide humanity with the knowledge of the biophysical environment and of social behaviour needed to develop effective solutions to its global and local problems, By emphasizing and explaining the dependency of living things on each other and on the physical environment, science fosters the kind of intelligent respect for nature that should inform decisions on the uses of technology; without that respect we are in danger of recklessly destroying our life support system. Without the continuous development and creative use of new technologies, society may limit its capacity for survival and for working towards a world in which human species is at peace with itself and its environment.

Environmental Pollution

Environmental pollution is one of the most serious problems faced by humanity and other life forms today. Human beings are part of the earth's ecosystems. Human activities can, deliberately or inadvertently, alter the equilibrium in ecosystem. Since time immemorial, mankind has been trying to modulate or alter the different environmental factors to its own betterment. It has plundered the environment recklessly to satisfy its own material needs without bothering to replenish the environment. Although the environment has its own regenerative and recouping system by which it tries to recoup what has been lost or taken away by a series of complex interactions amongst its various forces, these automatic regenerative capacities have their own limitations. In this relentless pursuit of technological advancement and material progress, if the rate of plundering the environment goes beyond a certain limit, the regenerative capacities of the environment fail to cope up and the environmental conditions begin to decline or population starts getting manifested in different forms of deteriorating physical, chemical, biological deteriorate. This phenomenon of deterioration in common parlance is called "Environmental Pollution" or "Environmental degradation".

- Air pollution
- Water pollution
- Global warming
- Ozone layer depletion

- Acid rain
- Soil degradation

Concern for Environment

As the Great Buddha states "Desire is the cause of sorrow" we are reaping the big harvest of sorrow caused by our innumerable and insatiable desires. Nature is to fulfil our needs not our greed.

In the mad race of economic growth, technological advancements and to increase the quality of life, human being has ruthlessly managed the physical environment which is basic for his survival. It is very clear that environmental crisis is consequences of human activities and behaviour, which may be due to unawareness, lack of attitude and sensitivity towards environment.

We need nothing short of a new global ethic- an ethic which espouses attitude and behaviour for individuals which recognizes and sensitively responds to the complex and ever changing relationships between humanity and environment.

The real solution could be sought in the education which as Swami Vivekanand would have it, would be man making, character building and not mere material building.

'Education is critical for promoting sustainable development and improving the capacity of people to address environment and development issues. ...It is also critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision making'.

ENVIRONMENTAL EDUCATION

Environmental education is a bond between environmental crisis and educational crises.

"Environmental education is a way of implementing the goals of environment protection" (UNESCO, 1976).

Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitude, motivation, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978).

Environmental education has been defined as education: about the environment (including cognitive understanding of environmental matters); in and through the environment (including direct experience of studying and working in the environment) and for the environment (including values and attitudes appropriate to environmental education) (National Curriculum Council, 1990).

Environmental Education- Historical Background

Efforts to define environmental education as a specific endeavour began in the 1960s. They were given international support at the United Nations conference on the Human Environment held in Stockholm in 1972, where participating governments recommended that it be recognized and promoted on an international scale through the United Nations. One of the initial tasks was to develop some consensus on what environmental education could and should become, and to assist governments in implementing relevant programs as soon as practicable. Two major conferences, supported by regional meetings of experts, were hosted by the newly formed UNESCOUNEP International Environmental Education Programme. The purpose of the first (Belgrade, 1975) was to draft concepts and a vision for environmental education. The second, an Intergovernmental Conference on Environmental Education (Tbilisi, 1977), formally approved the scope and action plans put forward from the previous conference. The provisions of the 'Tbilisi Declaration identified some characteristics of environmental education', which are in wide international use as guiding principles:

Environmental education should

- Consider the environment in its totality-natural and built, technological and social (economic, political, cultural-historical, moral and aesthetic);
- Be a continuous lifelong process, beginning at the pre-school level and continuing through all formal and non-formal stages;
- Be interdisciplinary in its approach, drawing on the specific content of each discipline in making a holistic and balanced perspective;

- Examine major environmental issues from local, national regional and international points of view so that students receive insights into environmental conditions in other geographical areas;
- Focus on current and potential environmental situations while taking into account the historical perspective;
- Promote the value and necessity of local, national and international cooperation in the prevention and solution of environmental problems;
- Explicitly consider environmental aspects in plans for development and growth;
- Enable learners to have a role in planning their learning experience and provide an opportunity for making decisions and accepting their consequences;
- Relate environmental sensitivity, knowledge, problem-solving skills and values clarification to every age, but with special emphasis on environmental sensitivity to the learner's own community in early years;
- Help learners discover the symptoms and real causes of environmental problems;
- Emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skills;
- Utilize diverse learning about and from the environment with due stress on practical activities and first-hand experience.

Recent Developments

The United Nations Conference on Environment and Development held in Rio DeJaneiro in 1992, and the World Summit on Sustainable Development at Johannesburg in2002 have drawn the attention of the global community to discuss problems concerning environment and development. In order to achieve the goals of sustainable development, people need to become aware of the environmental issues and acquire background knowledge to enable them to make and influence decisions. Environmental education is thus concerned with attitude towards, and decisions about environment quality, with informed management of resources, and with the ethical considerations that relates to these.

The declaration of the decade for education for sustainable development (ESD) beginning in 2005, by the United Nations has provided further impetus. The goal is to create as sustainable world through active participation of citizens.

ENVIRONMENTAL EDUCATION IN INDIA

The United Nations Conference on Human Environment held in the Swedish Capital Stockholm in 1972 was the hallmark in arousing global environmental awareness against the deteriorating environment. Several heads of nations had assembled there and India was represented by the late Prime Minister Mrs. Indira Gandhi who back home initiated several measures and enacted legislations for protection of environment in India.

Environmental provisions were introduced into the Indian Constitution in its 42nd Amendment Act 1974. Article 48(A) and 51(A) enjoin upon the State and the citizens of India to "protect" and "improve" the environment and to "safeguard" the forests, lakes, rivers, wildlife and hills of the country.

Article 51-A (g)

The Part IV-A of "Fundamental duties" provides under Article 51- A(g) "that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures".

Article 47

The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties. The improvement of public health may be related with the improvement of the environment.

Article 48-A

The State shall endeavour to protect and improve the environment and to safeguard the forests and the wildlife of the country.

The first national committee to consider the issues related to environmental legislation was appointed in 1980. The Committee identified five areas of environmental concem-(l) Land and Water Management; (2) Natural Living Resources; (3) Environmental Pollution; (4) Human Settlements; and (5) Environmental Education and Awareness.

It was in this background that a Department of Environment was established by the Government of India in 1980 and a Ministry formed in 1985. The role of the Ministry was seen as a nodal agency in the Central Government for the "planning, promotion, coordination and overseeing the implementation of various environmental and forestry programmes". In order to achieve these tasks, the Ministry recognized the "creation of environmental awareness among all sectors of the country's population" (4). The Ministry in turn recognized environmental education as a key to the success of any overall environmental strategy and decided to help in the setting up of a 'Centre of Excellence' in EE to play the vital role of setting the pace and the agenda for EE in the country. The Centre for Environmental Education, CEE, was set up in 1984.

The National Policy on Education, 1986 states that "protection of the environment is a value which along with certain other values, must form an integral part of curriculum at all stages of education. The policy states, "There is a paramount need to create a consciousness of the Environment. It must permeate all ages and all sections of society, beginning with the child. Environmental consciousness should inform teaching in schools and colleges. This aspect will be integrated in the entire educational process."

The implementation of EE in schools needs to be undertaken in a mission mode.

The mission could be stated as:

To prepare young minds to appreciate the importance of environment in a holistic manner, not only for human survival but for all life forms on Earth, to inculcate a positive attitude towards environment, and to encourage pro-active action for a sustainable future.

Goals and objectives for environmental education

The Tbilisi intergovernmental conference in Georgia endorses the following goals and objectives for environmental education

- To foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas.
- To create new patterns of behaviour of individuals, groups and society as a whole towards the environment.

ENVIRONMENTAL AWARENESS

"This is your Earth.....love it or leave it"

Awareness of the physical environment is not, by any means, something recent. Man ever since he appeared on earth, become a part of his environs. Primitive man, when he had time to look around, observed nature in all her pristine beauty, splendorous and mysterious. The splendor made him joyous and the mysteiy kindled awe and curiosity. This is how the wonderful synthesis of the physical world with the individual soul began (Gupta and Mehra, 2004).

Environmental awareness is knowing and understanding about various environmental issues, their significance, needs to preserve and methods to protect the environment. Environmental awareness is not unidimensional but stems from learning about environment, learning in and through the environment and finally learning for the environment. So environmental information stems from any sources and influences the public and individual in many ways (Carty, 1997).

Environmental awareness provides the understanding and competence to recognize environmental resources and inter-dependence between physical and biological components of the environment for growth and development. Environmental awareness involves the knowledge of both natural and manipulated environment, but it confines itself only up to the theoretical aspect. It is limited only to the understanding aspect of problems and their solutions but does not involve much of task and activity. It confines itself to cognitive level only.

Research conducted in England has found that young children are likely to understand nature in relation to human activity. Older children tend to think more about the needs of organisms for resources and about ecological relationships (Leach, Driver, Scott & Wood Robinson, 1992, 1995, Scott 2000). Like most developing countries, India is today facing environmental problems of enormous magnitude that adversely affect the lives of its people from all walks of life. Many of these problems have resulted due to lack of understanding and concern about environmental and sustainable developmental issue. These have led to over exploitation of natural resources and badly

planned development and industrial projects. These have intensified socio economic problems as well as created large scale air, water and soil pollution.

There are huge disparities in incomes and lifestyles of people in India. This means that a large percentage of the population lives in poverty, with few options to choose environmentally appropriate life styles. Others are in a position to make environment sensitive decisions but do not do so, partly because of lack of awareness.

A New era has dawned. Man has entered the age of "environmental awareness" or"the age of ecology". The concerns of a small group of scientists, of naturalists, and of misunderstood and seldom appreciated conservationists have become the focus of society as a whole. Our news media continually reports the plight of the environment. The fragile biosphere, the envelope of land, water and air on which all organisms depend, shows sign of serious deterioration.

In the past our environmental concerns were less pressing- much appeared to be merely a matter of aesthetics, such as concern for vanishing species or disappearance of natural beauty. We now realize that there is something far more fundamental involved. The symptoms are indications of changes that threaten the survival of the human species. The chemical, physical and biological changes that we are causing are effectively poisoning our environment, thus endangering man and the vast complex of living organisms on which he is both directly and indirectly dependent for his survival (Gupta and Mehra, 2004).

Environmental awareness may be defined as to help the social groups and individuals to gain a variety of experiences in and acquire a basic understanding of environment and its associated problems.

The Belgrade International Workshop (1975) stated - Environment Awareness may provide power and understanding:

- To recognize the interdependence among materials into physical environment, plants and animal life for survival, growth and development.

- To take decisions individually and collectively and initiate actions for social, cultural and economic survival, growth and development and for conservation of nature and natural resources.
- To identify human, material, space and time resources in the environment.
- To recognize ways of making effective use of environmental resources for social economic and cultural survival, growth and development.
- To take decisions for the effective use of resources, to recognize the special significance of conservation of natural resources and initiate or support community efforts for the purpose.

(UNEP) states that Environmental Awareness may be developed by:

- Identifying, analyzing and understanding the needs and problems of personal life including health, vocation, etc.
- Social life at different levels viz. family, caste, community, religion, town or village life, state and country.
- National life including civic, economic, etc.

Roth (1992) defines environmental awareness as "essentially the capacity to perceive and interpret the relative health of environmental systems and take appropriate action to maintain, restore or improve the health of those systems."

Kollmuss and Agyeman (2002) defines environmental awareness as 'knowing of the impact of human behavior on the environment'. Environmental awareness has both a cognitive knowledge-based component and an affective, perception-based component.

According to Monroe and Kaplan (1988), elements important in solving environmental problems may include: knowledge of the environment and of issues; knowledge of action strategies that help resolve issues; locus of control and empowerment; and a sense of responsibility and communication skills.

Marcinkowski (2004) has pointed out that environmental knowledge and environmental awareness affect attitude and attitude affects behaviour and pointed out further that how other factors such as a person's locus of control or understanding of any skill in using environmental action strategies are better

predictors of environmental stewardship. Marcinkowski used a model developed by Hungerford and Volk in 1990 to determine Environmental Education as it will lead to Responsible Environmental Behaviour (REB).

Environmental educators have also emphasized that one foundation for environmental awareness and action is children's sense of place (Hutchison, 1998), which usually refers to 'an experimentally based intimacy with the natural processes, community, and the history of one's place' (Sanger, 1997).

Children who expressed environmental awareness and appreciation for nature also took environmentally mindful actions (Mitlelstaedt et al l999).

"Quality of our children's environmental awareness and their sense of wonder in the natural work must be supported, channelled and encouraged" (Sheehan and Waidner, 1998).

Awareness of environmental problems and understanding the causes and consequences of environmental degradation, whether obtained from school or elsewhere, increased children's sense of achievement and responsibility. Environmental awareness leads to more concern for the state of the environment and uncertainty of the future, but can also be considered a more realistic view. (Korhonen and Lappalainen, 2004).

REVIEW OF RELATED LITERATURE

The review of related literature is a very important aspect in the planning of new study. It helps us to know what other researchers have reported and what problem areas need to be explored. It helps researchers to eliminate the duplication of what has already been done and it provides useful suggestions for further research. A number of studies have been conducted to investigate the environmental awareness among the school students. Some of the representative studies are given below.

Fliegenschnee (1998) in his study found that women usually have a less extensive environmental knowledge than men but they are more emotionally engaged, show more concern, show more concern about environmental destruction, believe less in technological solutions, and are more willing to charge.

Wong (2003) found that students were quite conscious of environmental issues and able to rank issues from most to least threatening. However, many students were not optimistic about the future of the environment. Moreover, studies among students younger than college level indicated that students were gaining most of their environmental knowledge from television.

MacMillan et al. (2004) in his study reported that an introductory class about the environment had positive results in moving students towards more eco-centric mindsets and more sustainable lifestyles. In another study, conducted in China.

Fisman (2005) in his study tried to examine the effects of an urban environmental education program on children's awareness of their local biophysical environment. He found that there is a significant positive effect of the program on students' awareness of the local environment and on their knowledge of environmental concepts. Moreover, he concluded that improvement in environmental knowledge were not associated with the children's socioeconomic status but among the students living in high socioeconomic neighborhoods.

Aini Mat et al. (2007) observed that education was not necessarily changing student's actions and student's needs to be able to connect the concept of 'environment' to their actual surroundings and where they lived.

Wahab et at. (2010) in his study revealed that males were shown to be more knowledgeable about environmental issues than females.

Sivamoorthy (2013) studied the environmental awareness and conservation practices among college students. This study revealed that the level of awareness is high among all the respondents but at practice level there is difference between genders i.e. males practicing more than females.

Shahnawaz (1990) conducted a study on the environmental awareness and environmental attitude of higher secondary and secondary school teachers and students. It was found that 95% teachers and 94% students possessed positive environmental attitudes. Teachers had more awareness of the environment than students. Trained and untrained teachers did not differ in their environmental awareness and attitude.

Arcury (1990) investigated that increased knowledge about the environment is assumed to change environmental attitudes, and both environmental knowledge and attitudes are assumed to influence environmental policy. However, little research has focused on public environmental knowledge or the relationship between knowledge and environmental attitudes. This paper used telephone survey data from 680 Kentucky residents to examine how environmental knowledge and attitudes are related to sociodemographic factors (gender, age, education, income and residence).As in similar research the respondents to this survey did not score well on the measures of environmental knowledge. Environmental knowledge is found to be consistently and positively related to environmental attitudes, although the relationship is not especially strong. With the correlation of knowledge and attitudes, the low level of environmental knowledge has disturbing implications for environmental policy.

Armstrong and Impara (1991) studied a relationship between knowledge and attitude .A four subject curriculum called Nature scope was given to various 5th and 7th grade teachers for use in their class rooms. A pre-testpost-test survey was used to measure the student's knowledge and attitude was measured on Likert type scales. Experimental groups for a given subject section served as control groups for another in measuring knowledge. Control groups were used when measuring attitude. No control was placed upon which activities the teachers used, the mode of implementation, or the modifications to the curriculum. The authors concluded that only one ofthe four lessons had significant positive impact in increasing knowledge, but post test showed that the treatment group consistently outscored the control group in knowledge. No significant differences were found in attitude across control and treatment group.

Hausbeck, Millbrath and Enright (1992) surveyed approximately 3,200 students from a sample of 30 secondary schools in New York and found that students scored rather low on environmental knowledge but scored very high on environmental awareness and concern. Environmental knowledge was found positively correlated with age, family income, gender, and exposure to mass media and personnel sources outside school. Electronic and print media were most frequently cited by students as their sources of environmental knowledge and school was cited as the third important source.

Chin (1993) investigated knowledge, attitudes, verbal commitment and actual commitment of secondary school students, and pre and in-service teachers in relation to environmental issues in Taiwan. All groups were assessed for their awareness of current environmental problems in both the world and Taiwan. Interestingly, pre-service and in-service teachers are no more aware of environmental problems than senior high school students.

Ting Ya F(1994) conducted his study on 531 grades V students and their parents for finding environment awareness and action at elementary school in Taiwan, the Republic of China. It was reported that environmental education is a subject for everyone and the earlier one starts, the better it results. It also suggested that education is the root to solve many environmental issues. The theme of this study is to draw everyone's attention to "Think globally and act locally."

Kahn and Friedman (1995) interviewed children across grades 1, 3, and 5 (mean ages, 7-5, 9-6, and 11-4) from an economically impoverished inner-city Black 44 community on their views and values about the natural environment. Assessments were made on whether children were aware of environmental problems, discussed

environmental issues with their family, valued aspects of nature, and acted to help the environment. Additional assessments pertained to the prescriptively and generalizability, and supporting justifications of children's normative environmental judgments based on a hypothetical scenario that involved polluting a waterway. Overall, children showed sensitivity to nature and awareness of environmental problems, although attenuated by both developmental and cultural factors. Most children believed that polluting a waterway was a violation of a moral obligation. Children's environmental moral reasoning largely focused on homocentric considerations (e.g., that nature ought to be protected in order to protect human welfare). With much less frequency, children focused on biocentric considerations (e.g., that nature has intrinsic value or rights).

Rou, S (1995) examined the awareness of teachers and students of high schools towards environmental education in Jabalpur district. He found that (1) Boys exhibited better awareness towards environment problems as compared to girls. (2) Urban students exhibited better environmental awareness as compared to rural students. (3) Private school students revealed better awareness towards environmental problems as compared to government school students.

Carty (1996) explored the linkages between various forms of learning and outcomes as public expressions of environmental understanding. A framework for environmental education was adopted to be representative of environmental learning as a whole, because it recognized that environmental learning was not unidimensional but stems from learning about environment, learning in and learning through the environment and finally learning for the environment. Various sources of environmental information were investigated such as formal education media. Other influences were also discussed including identity and experience as well as the discourse of environmentalism. A discussion of the utilization of environmental information during a local public consultation project illustrated environmental information in action. The method of the inquiry varied according to information source, which was reflective of the variety of learning experiences. It thus concluded that environmental information stems from many sources and influenced the public and individuals in many ways and environmental education as well as environmental decision making should take this into account.

Liu (1996) developed an environment education instructional program for Taiwanese college students and found its effectiveness on student's environment awareness, knowledge, attitudes, self-efficiency, social support and responsible environmental behaviour.

Bhattacharya (1997) conducted a study to determine environmental awareness among higher secondary students of science and non-science streams of Varanasi. The major findings of the study were: (1) Students belonging to the science discipline were comparatively better in terms of their environmental awareness as compared to non-science students. (2) Female groups of higher secondary students were better than their male counterparts in environmental awareness.

Cordano (1998) examined the relationship between environmental attitudes and environmental awareness with environmental managers' behavioural intentions. The preliminary study validated five environmental attitude scales for use with business managers. These five scales measured attitudes concerning conservation, ecology, property rights, environmental regulation and faith in technology. Twelve hypotheses were formulated to fulfill four objectives for the primary study. Both studies used surveys to collect data. For the primary study, 295 useable surveys were collected from environmental managers at American manufacturing facilities. The results demonstrated that environmental managers' attitudes and environmental awareness influenced their behavioural intentions to engage in pollution prevention. In correlation test also, the general attitudes variables and a variable measuring beliefs in the effectiveness of pollution prevention were positively associated with behavioural intention to engage in pollution prevention.

Yeung (1998) examined the level of environmental consciousness of students in an education system where curriculum objectives emphasized in the classroom are often strongly shaped by public examinations. The study sample was drawn randomly in 1993 from Secondary five geography classes taught by teachers who had earlier completed a survey on style and emphasis in the teaching of environmental issues. Respondents were asked to complete a questionnaire on environmental understanding, attitude and behaviour. A sample of them was given a further set of questions on participation in activities and lifestyle patterns with an environmental bearing. Findings indicate that respondents had only a limited understanding of environmental issues, especially with 46 respects to higher order cognitive objectives like synthesis and evaluation and the comprehension of information presented in various diagrammatic forms. In terms of attitude and behaviour the degree of concern for environmental quality was also limited. Most respondents did not show much willingness to take an active role in environmental protection in cases where conflicts with personal freedom or demands on physical effort, expression ofopinions or attempts to influence other people were involved.

Legault (1999) studied the impact of an environmental education program on children's and parent's knowledge, attitudes, motivation and behaviors. Results suggested that children in the experimental group were more likely to ask teachers and parents for ecological information and presented a more self-determined motivational profile. Additional analyses revealed that children enrolled in Environmental Education program performed ecological behavior less for extrinsic motives. Level of knowledge, other attitudes and behavior measurement did not differ significantly between the two groups. Parents of children in the experimental group reported lower level ofsatisfaction towards the environment and were more likely to get information on ecological issues and strategies from children. No other significant differences between groups of parents were found.

Skanavis and Sarri (2000) examined the social structure and public services in Cyprus. It examined the need for an environmental awareness assessment ofthe citizens in order to determine how critical thinking and problem solving skills on issues of environmental significance could be promoted. An analysis of environmental health concerns existing in the island was conducted and the educational process taking place, the implemented environmental policy and the extent of citizen participation were studied. The challenge of environmental education in Cyprus was discussed in detail and the environmental awareness efforts were presented. The authors highlighted the way in which Cyprus (pursuing membership into the European Union) had to adapt to and implement certain directives, where environmental awareness should be intensely promoted.

Noethe (2000) reported that all environmental and conservation issues ultimately depend upon human behaviour, both for their origins and their timely solutions. Unfortunately, human responses are slow and seem to reflect linear perspectives about what the future holds. While collective human impacts are the obvious source of natural 47 destruction, change must occur at a more personal level. Therefore, this study focused on individual decision- making, particularly on the role of values. This study utilized structured interviews and a form a phenomenological analysis to capture the environmental values of 21 dedicated environmentalists and conservationists. This analysis included a rating phase to establish empirical grounds for the construct validity of summaries derived from the phenomenological analysis. An extensive qualitative exploration of these summaries was then conducted. This process yielded emergent models of value structure and value change, along with a comprehensive picture of environmental living. The most prevalent values that emerged from the qualitative exploration were awareness of current realities,

connectedness ofland, ecosystem, people and active involvement. The emergent model of value structure revealed two paths for moving an individual from passive ignorance to active awareness. One path was based on the development of self-awareness, while the other was based on the development of environmental awareness. Both paths involved stages of observation, understanding, reaction, commitment and involvement. As a methodological study, this research bridges the gap between quantitative and qualitative approaches. As a value study, it provides new resources and ideas for bridging the gap between traditional and environmental perspectives.

Sudarmadi et al (2001) conducted a study to investigate differences in perception, knowledge, awareness, and attitude with regard to environmental problems between educated and community groups and to identify human-dimension factors to improve public perception, knowledge, awareness, and attitude in relation to global environmental conservation concerns in developing countries. Educated and community groups in Jakarta were interviewed, and data obtained from a total of 537 males aged 30- 49 years were analyzed. The data were evaluated by the chi-squared test and logistic regression was applied after factor analysis. The results show that: (1) The perception, knowledge, awareness, and attitude of educated subjects in regard to regional and global environmental problems were much better than those of subjects in the community group; (2) The highest 'yes' response in the community group was in regard to perception of AIDS (82.9%) Few subjects in the community group knew the effects and the cause of source of environmental problems; however, they were well informed about AIDS (86.4%) for effects and 93.9% for cause or source). The conclusions are: (1) subjects in the educated group had better perception, more detailed knowledge, were more aware. 48 And had better attitudes in regard to regional and global environmental problems than those in the community group; (2) more education is needed to develop environmental actions and ethics in developing countries; (3) non-formal environmental education through popular mass media should be used more widely and frequently, and more detailed information on the environment should be provided to literate people by newspapers and other means.

Walford (2002) indicated that lack of awareness is one ofthe largest obstacles to development. Ifpeople are not aware of what things are harmful to the environment, how can they respect it? Schools play an important role in the formation of positive attitudes towards the environment in young children. English and Mexican school children of 7-9 years of age were analyzed in this study with the objective of analyzing some possible reasons of influencing the environmental awareness and perception of these children. Children were from eight schools with different environmental ethos.

Results revealed that schools with strong orientation in Environmental Science seemed to transmit environmental information more effectively than schools with no environmental policies. The development of effective environmental policies in all schools needed to be considered in order to promote an environmental awareness in the school population.

Gupta and Mehra (2002) in their UGC project reported that an environmental educational learning package helped to promote awareness among primary school students of Chandigarh.

Hoerisch (2002) conducted a comparative study on environmental awareness and environmental beneficial behaviour in India. The study gave clear evidence that the role of media in creating environmental awareness is definitely dominant one. In this thesis, the results of the house hold survey show that more than half of the interviewees are convinced the information provided by media has been most important in making them aware of environmental problems, followed by 38% who thought that it was their own confrontation with pollution in everyday life, while education at school or other institutions was considered to be most important in creating environmental awareness by only 7% ofthe interviewed persons.

Wong (2003) revealed that university students in Beijing are not single-minded about the pro-growth beliefs and values that are deeply embedded in society. On the whole, students were conscious about the seriousness of environmental problems, both in 49 China and throughout the world. However, they were pessimistic about future environmental conditions. Many students anticipated a decline in environmental quality over the next five years, both in China and the world. The students were also ambivalent about dividing priorities between economic growth and environmental protection. Yet they supported the establishment of more environmental NGOs to exert pressure on the government to protect the environment. Overall, a rising environmental awareness among the young intellectuals would ultimately spark environmental activism in China.

Hsu (2004) studied the effects of an environmental education (EE) course college students' responsible erWiwaiiiKntalbehavior and associated environmental literacy variables. This undergraduate course emphasized issue investigating-evaluation and action training. A nonequivalent control group design was used. The results ofthis study showed that the course significantly promoted the students' responsible environmental behaviour, locus of control, environmental responsibility, intention to act, perceived knowledge of environmental issues, and perceived knowledge of and skills in using environmental action strategies.

Littledyke (2004) examined children from seven classes representing the year groups in a primary school in groups of three or four to find out their understanding and views on issues related to the environment and science. The large majority showed considerable interest and concern about environmental issues related to their experience and understanding, drawn from school and influences outside of the school, though most showed limitations and contradictions in their understanding of the issues. The children's understanding of science was mainly limited to their experience of the subject at school and few showed any understanding of the impact of science on society or the environment.

Karhonen and lappalainen (2004) examined children's and adolescents's environment awareness in rural Madagascar. Two types ofschool survey among 8- to 21- year-old students and pupils in 18 schools were used for data collection. The objective of this comparative study was to examine the environmental awareness and knowledge of children and adolescents living under different ecological conditions. The role of education in forming environmental awareness was also considered. This research was carried out in villages nearby Ranomafana National Park located in forested areas as well 50 as in more environmentally degraded villages further from the park. The results of the study show that children in rural areas of Madagascar are measurably aware of environmental issues and can relate them to human activities. The effect of education on environmental concerns is significant, but when the effects of degradation can be felt and seen in daily life there is an increase in this awareness. Children's environmental concern and demand for action was stronger in deforested areas.

Anuradha (2005) reported that teacher educators possessed more environmental awareness than student teachers. However, teacher-educators, teaching social science, and science in colleges of educations located (either in urban or rural areas) did not show any marked difference in their environmental awareness. Male and female student teachers almost had the same environmental awareness. Science student -teachers had more awareness of their environment than student-teachers opting for social science and language. No significant difference was observed in the environmental awareness of urban and rural student-teachers.

Sahaya and Paul (2005) studied the environmental awareness among the high school students in Pondicherry region in terms of gender, locality of the school, medium of instruction, type of the family and size ofthe family; and in terms of caste, type of the school and religion. The sample for the study consists of 198 students of standard IX from 10 schools in Pondicherry region. The tools used for the study were

Environment Awareness Opinionnaire and Performa Sheet. Statistical techniques like t-test, and ANOVA were used for this study. The findings of the study revealed that the environmental awareness among the high school students is above average. The medium of instruction in the school and locality of the school influence the Environmental Awareness among the students. The gender, type of the family and size of the family do not affect the environmental awareness among the students. The different type of schools and different type of religions do not affect the awareness among the students. The caste of the students within the group affects the environmental awareness among the students.

Dhillon and Sandhu (2005) studied the environmental education awareness of the elementary school teachers with respect to their residential background (urban/rural), gender and subject specialization. A sample of 1800 elementary school teachers was selected using the technique of stratified random sampling from five districts in Punjab. There was equal representation of teachers in the sample (i.e., 150) with respect to the 51 background (urban and rural), sex (male and female) and subject specialisation (science, social science and language). The analysis was done using t-test. The findings were (1) significant difference was found in the environmental education awareness between urban and rural school teachers, with the former having greater awareness than the latter. (2) No significant difference was observed in the environmental education awareness between male and female teachers. (3) Significant differences were found between teachers with respect to their subject specialization. (4) Science teachers had greater environmental awareness than both social science and language teachers. Social science teachers had greater awareness than language teachers.

Lianne (2005) examined the effects of an urban environmental education programme on children awareness of their local biophysical environment. She examined changes in environmental awareness among 3rd and 5th grade participants in the open spaces as learning place program in New Haven,Connecticut. Results showed a significant positive effect of the programme on student's awareness of the local environment and on their knowledge of environmental concepts. Improvements in environmental knowledge were uncorrelated with the children's socio economic status, whereas improvements in local environmental awareness appeared only among students living in high socio economic neighbourhood.

Michalzion et al (2005) found that a long term instructional program combining formal and informal activities is more effective in transmitting environmental knowledge than a short term program. A long term program also

provides students with a multidisciplinary approach to the environment, thereby nurturing positive and proactive concrete and abstract environmental attitudes. The study found that implementing a long term instructional program, which, combines both formal and informal learning activities merits serious considerations when formulating environmental curricula for 14-15 years olds.

Kuczynski et al (2006) studied the environmental awareness of the residents of Szczecin. The study was carried out in 2004-2005 among 132 residents of Szczecin between the age of 18 and 55 years. The main research tool was a questionnaire which included fifteen, questions about the sensitivity to environmental issues, attitudes, ecological knowledge, and pro-ecological behavior of the respondents. Most of the respondents declared that they are able to foster improvements in the natural environment 52 and are aware of the problems connected with environment pollution in their vicinity. The pro-ecological behavior is manifested by reducing water (68%) and electric energy consumption (75%), by pro-ecological consumer attitudes (66%) and waste sorting (55%). Very few of Szczecin's residents are members of ecological organizations (5%). The main sources of knowledge about environmental protection are the radio and television (38%), press (31%) and the internet (16%). Among the respondents there was a group of people (15%) showing interest in and sensitivity to environmental issues and therefore called a pre ecological group. Nevertheless, environmental awareness of the residents of Szczecin is rather low and still needs to be improved through professional educational activities.

Rout and Aggarwal (2006) conducted a study to know the environmental awareness and environmental attitude of the male and female students of science and non-science streams belonging to rural and urban backgrounds studying in class X of different schools of Moradabad city. The findings of the study are: l. The students of science stream have more environmental awareness and environmental attitude than the students of non-science stream 2. The students belonging to urban background are comparatively better in terms of their environmental awareness and environmental attitude as compared to the students belonging to rural background 3. The male and female students do not differ significantly in terms of their environmental awareness and environmental attitudes.

Shoebeiri et al (2007) investigated secondary school students' environmental awareness in India and Iran. Nine hundred and ninety-one students were selected through the stratified random sampling technique from 103 secondary schools of Mysore city (India) and Tehran city (Iran). Subjects consisted of 476 boys and 515 girls. They were assessed using the Environment Awareness Ability Measure (EAAM).

Results indicate that there are significant differences between Indian and Iranian students in their level of environmental awareness. Also there are significant differences between them in environmental awareness across and within two groups with regard to their gender. Also type of school management (Government and private) is a factor, which can affect student's environmental awareness in both countries.

Said, Yahaya and Ahmadun (2007) conducted a descriptive study to gauge levels of environmental understanding, awareness and knowledge, and the involvement 53 of secondary school students in sustainable consumption practices. A survey was conducted using a self-administered questionnaire with 306 students who were randomly selected from four secondary schools in the state ofJohor, Malaysia. The instrument had sections addressing demography, sources of environmental information, concept of environment, environmental knowledge, environmental awareness and concern, sustainable consumption behaviours, and nature-related activities. The data illustrate that students were aware of, but only moderately concerned with, environmental issues. Only 10% of the students were able to define environment in terms of a relational conception (as opposed to an object). The adoption of Janikowski's four principles of sustainable consumption (selection, reduction, maximization and segregation) in their daily living was modest. Environmental education 'in' and 'with' nature experiences was found to be minimal among the respondents. The relationship between variables was also investigated. The findings showed that environmental education had raised the environmental consciousness of students but was rather ineffective in changing action and behavior patterns.

Environment Agency-Abu Dhabi (2008) revealed in a survey that the overall level of awareness among the general public in Abu Dhabi Emirate stands at 49%, while the level of overall behavior stands at 44%. The highest awareness was found to be among youth and the lowest was among younger children. Overall, women were found to be more aware than men, while the survey revealed that there is a variation between awareness and behavior among adults. This means that although some people demonstrated awareness, their behavior did not reflect this awareness.

Ozden (2008) assessed the awareness and attitudes of student teachers in Turkey. The relationship between the student teachers' attitudes and their gender, academic major, grade level, geographical region and socioeconomic status (level of family income, their parents' education level and occupation, residence) was evaluated with an instrument developed by the researcher. The present descriptive study was carried out at the University of Ad and Inodot; Yaman in Turkey, Faculty of Education on 830 subjects. A 30- item Likert-type questionnaire containing four dimensions

(awareness of environmental issues-AEI, awareness of individual responsibility-AIR, general attitudes towards environmental problems-GAEP and general attitudes towards 54 environmental solutions GAES) was developed to measure student teachers' environmental attitudes by the researcher. Results of T-test and ANOVA showed that the female elementary student teachers in the last year of an instruction program who have less than three brothers and sisters with high socioeconomic level (student teachers' income level of family, father's job and education, mother's job, living residence) living in Marmara Region had more positive attitudes towards the four dimensions of environmental attitude than the other student teachers.

Dixit and Aggarwal (2009) conducted a study on environmental awareness among prospective elementary teachers and reported no significant difference between total environmental awareness of male and female prospective elementary teachers of U.P state. Also prospective teachers from rural and urban area exhibited no significant difference with respect to environmental awareness.

Uzunboylu et al (2009) investigated the use of integrating use of mobile technologies, data services, and multimedia messaging systems to increase student'use of mobile technologies and to develop environmental awareness. Data was collected using "usefulness of mobile learning systems" questionnaire from a sample consisting of 20 male and 21 female undergraduates enrolled in computer education and instructional technologies classes at the Near East University in North Cyprus. Students voluntarily participated in a six-week program using mobile telephones to transmit photographs of local environmental blights and to exchange pictures and observations. Participants learned ways to maintain clean environments and increased their awareness of environmental concerns. Responses on questionnaire differed significantly based upon gender and grade.

Devi Surekha (2015) studied environmental awareness among the students of 10^{th} Class of Chamba District and found that secondary schools students of Chamba District are well aware about the environment.

Bhowmik Arup & Verma Anju (2019) conducted a comparative study regarding environmental awareness among senior secondary school students of the east district in Sikkim. The study revealed that level of environmental awareness significantly differs between girls and boys students of senior secondary schools however; there is no significant difference between Science and Non-Science stream students of senior secondary schools in their level of environmental awareness.

Parmar Anupam, Mahajan ABhishek& Neetu (2019) studied environmental awareness of high school teachers in relation to their sex and stream in District

Hamirpur of Himachal Pradesh. The study revealed that high school teachers of Hamipur District of Himachal Pradesh are well aware about their environment. There is no significant difference in the environmental awareness of male and female high school teachers of Hamirpur. There is significant difference in the environmental awareness among high school teachers with different stream and the environmental awareness of high school teachers with science stream are more than high school teachers with art streams in district Hamirpur. There is no significant interaction effect of sex and stream on environmental awareness of high school teachers of Hamirpur district of Himachal Pradesh.

Banga, Chaman Lal (2020) conducted a study and compare environmental awareness of senior secondary school students in relation to gender and type of school in Shimla District of Himachal Pradesh and found that there is significant difference in the environmental awareness of senior secondary school students at two levels of gender i.e. boys and girls and there is significant difference in the environmental awareness of senior secondary school students of two levels of type of school i.e. government and private.

G. Sushakar, Rao P. Brahmaji & Swarnalatha G (2020) conducted study on level of environmental awareness among secondary school students in Guntur District of Andhara Pradesh. Study revealed that Environmental awareness in secondary school students differed significantly in relation to gender, language. Boys and girls differed significantly in both aspects languages.

Parul, Vikas & Ritu Bala (2022) studied environmental awareness among higher secondary school students in relation to their gender and locality. The study was carried out in the Solan District of Himachal Pradesh. Study revealed the conclusion that the higher secondary school students of district Solan had shown a high level of awareness about environment. Male and female students of higher secondary school did not differ significantly on the environmental awareness. Rural and Urban area students of higher secondary school did not differ significantly on environmental awareness.

RESEARCH QUESTIONS

The present study will address the following research questions:

1. Is there any impact of Family background on Environmental Awareness among elementary students?
2. Is there any impact of environmental awareness among elementary students on the basis of gender?

NEED AND SIGNIFICANCE OF THE STUDY

For the protection and enrichment of environment it important that the youth of the country are required with knowledge, attitude, and skill related to environment. Teacher engaged in teaching at government school level should be competent enough to impart environment knowledge. Therefore teacher should be aware with issues and problem related with environment. The scope of environment educate very wide the best place to start environment awareness in school from lower levels. It is in the formative stage of child that desirable attitude can be easily developed if environmental education is imparted at this stage, the coming generation will have knowledge, skill attitude, which will be useful in protection and enriching the environment . We can't expect the teacher who accomplishes this task without themselves being aware about important issue related to the environment.

Keeping in the view the background discussion of the concept of environmental education awareness and research studies revels that there is extensive research conducted on environmental education. Still more research to be needed on the concerned problems, because it is a burning problem that the world is facing now-a-days. Further keeping in view the above discussion and from the review of related literature, it becomes quite clear that present study is very much needed and is quite justified.

STATEMENT OF THE STUDY

Environmental awareness among 5^{th} standard students of Hamirpur district in Himachal Pradesh

OBJECTIVES OF THE STUDY

1. To Study the impact of Family back ground on Environmental Awareness among elementary students.
2. To study the impact of environmental awareness among. The elementary students on the basis of gender.

HYPOTHESIS OF THE STUDY

In this study, the following hypotheses have been developed:

1. There will be significant difference on Environmental Awareness among elementary students on the basis of family background.

2. There will be no significant difference in environmental awareness of elementary students on the basis of gender.

DELIMITATIONS OF THE STUDY

The study was delimited with respect to the following:

1. The study was delimited to the Govt. Elementary Schools of District Hamirpur in Himachal Pradesh.
2. The study was conducted only on 100 students of Govt. Elementary School Students.
3. The study was delimited to dependent variable age, sex, type of family, family income, occupation of parents, and one independent variable Environmental Awareness.
4. The study was delimited to the statistical technique of simple percentage method only.
5. The study was delimited in terms of time money and resources.

OPRATIONAL DEFINATIONS OF THE STUDY

Environment:

The term environment is used to describe, in the aggregate, all the external force, influences and conditions, which affect the life, nature behaviour and the growth, development and maturity of living organisms.

Awareness:

To help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.

Knowledge:

To help social groups and individuals gain a variety of experience in, and acquire a basic understanding of the environment and its associated problems.

Family:

Family in the present study refers to both nuclear and joint family.

Gender:

Gender in the present study refers to both boys and girls.

CHAPTER-II

METHODOLOGY AND PROCEDURE

INTRODUCTION

Webster has viewed methodology as, "The science of method or arrangement". Research methods are of extremely significant in research process. Theorists describe the various steps of the plan to be implemented in solving a research problem such as, the manner in which the problems are formulated, the definition of terms, the selection of subjects for investigations, the validation of data gathering kind of tools, the collection of the data for investigation and the proce of drawing inferences and generalization of findings of research. Methodology and procedure is very essential for the success of any work and it is very important for the success of research. After having received the literature related to the research problem, next task of the investigation was to select a method and procedure suitable for the research study. The present chapter describes the methodology and procedure, which has been followed in the present study.

RESEARCH METHOD

There are several research methods- the Historical, Normative Survey, Experimental, the Casual –Comparative, the Case Study and Genetic Method. Each method is used in appropriate situation depending upon the nature of the problem. The present study was conducted through descriptive survey method of research. This research method is most commonly used in educational research. The investigator collects the data to explore the nature of existing conditions to decide the relationship that exists between specific events. Many times, survey study intends to understand and explain the phenomena in a natural setting to provide information to government and other organization or compare different demographic groups or see the cause-and-effect relationship to make exact prediction. For this purpose, it needs responses directly from the respondents of selected population. In general the kind of information required, determines the nature of geographical area of data collection for investigation and whether it is a extensive or intensive, one extensive survey is carried out

when investigators intends to make generalization, whereas, intensive survey was practiced for making estimation. Survey research methods demand various tools to collect the data from samples and these ranges from observation, interview and questionnaire. In the present study data regarding theenviormentalawareness of elementary school students of hamirpur district of Himachal Pradesh with their type of family, gender and age was collected through simple ramdom technique of sampling.

SAMPLING

Sampling is essential for every research work, as one cannot take the entire population since it consume much time, energy and adds to difficulties and cost. Nevertheless, a sample can yield reliable result, if it is a true representative of the population which is unbiased and of adequate size. Sampling is a technique of significant small group, from a population which included the entire essential element needed for the investigation in hand. A sample is the representative of the whole universe. Sampling is a kind of indispensible technique in behavioral research; the research work can't be undertaken without the process of sampling. The concept of sampling has been introduced with a view to making the research findings economical, precise and accurate.

W.G. Cochran: reflected about the term sampling as, "In every branch of science we lack the resources, to study more than a fragment is the sample and a phenomenon is the population." The sample observations are applied to the phenomena i.e. generalization.

David, S. Fox: revealed regarding the term sampling as, "In the social sciences, it is not possible to collect data from every respondent to our society but only from some fractional part of the respondents. The process of selecting the fractional part is called sampling."

TYPES OF SAMPLING

There are two types of sampling viz. probability sampling and non-probability sampling.

Probability Sampling: Probability samplings methods are those where the units are drawn randomly by providing equal probability to all. The probability sampling can be made by using the following techniques:

(i) Simple random sampling

(ii) Systematic sampling

(iii) Stratified sampling

(iv) Multistage sampling

(v) Cluster sampling

Non-Probability Sampling: Non-Probability sampling methods are those where the units are selected on the considerations of convenience of judgment of the researcher. The techniques of Non – Probability Sampling includes:

(i) Incidental or Accidental sampling

(ii) Purposive Sampling

(iii) Quota Sampling

(iv) Judge mental Sampling

In the present study cluster technique of probability sampling was used for data collection.

POPULATION

Population is a group of individuals or items that share one or more characteristics from which data can be collected and analyzed. Population is the statistical concept which means a group of large number of units from which a smaller group of a few units is selected and used for achieving some purpose. According to Kerlinger (1978)[79] population is generally defined as "all the members of any defined class of people, events or object". The Population is defined in term of their specific characteristics. In educational researches they are called "Target Population," more often defined as "all the members of a real or a hypothetical set of people, event objects or other units". It is a large group scattered over a small group concentrated in limited narrow area. Population is homogeneous with regard to characteristics. Hence, each heterogeneous

population can have homogeneous population means the totality of these units. On the other hand when population is vaguely defined, it becomes difficultto judge what units are to be considered when taking the sample. Van Dalen (1973)[149]suggested that "conclusions cannot be drawn concerning a population until the nature of units that comprise it, is clearly identified". He further observed that many investigators produce disappointing results because they use available population frame without investigating the units that were used to compile and without ascertaining whether all members of population were included. Sometimes, they select unit list that are out of data, or duplication or do not adequately represent the population of the study. Keeping in the view of the above, all the 5thstandard students in government elementary schools of district Hamirpur of Himachal Pradesh constitute the population of current study.

SAMPLING FRAME

Selection of a sample from a given population for investigation it is very essential to comprise a complete, accurate and up to-date list of the entire units in the population. Such a list is known as sample frame. In the current study Elementary School Students of district Hamirpur of Himachal Pradesh formulated the sample frame.

THE SAMPLE

Dictionary.com describes the meaning of sample as "The sample is a portion, piece or segment that is representative of a whole". It is an entity which shows the representative of a class, a group, a specimen etc. Bias in sample selection can be made representative of the population by selecting it randomly. A random sample comprises small error in predicting value of population and this error can be estimated as well. Thus, the objective should always be to draw a representative sample. A sample plan has to be prepared. If the plan guarantees will enough that the chances are more occurring that selected sample in representative of the population, it is called a representative sample plan. It makes sure selecting diverse element and making sure that these diverse elements are represented adequately in the sample. In the present study simple random sampling technique was used to draw sample from the schools of

District Hamirpur in Himachal Pradesh. Investigation of the present study comprised the sample of 100 government elementary school students.

SAMPLE STRUCTURE

The final sample of the study comprised of 100 students(50 boys and 50 girls) of elementary school of district Hamirpur in Himachal Pradesh.

RESEARCH TOOL USED

The present study researcher used the standardized tool 'Environment Awareness Scale' constructed by Dr. Haseen Taj(2001).

Description of the tool

The tool consists of 61 items in the form of statements.There are favorable and unfavorable items and the items are classified on the basis of health and hygiene(5 items), Wildlife (6 items), Forests (5 items), Polluters(26 items), Population explosion(5 items), Environmental concerns (14 items). Four options are given such as strongly agree, strongly disagree and disagree. Items are scored as 4(strongly agree) to 1(strongly disagree) for favorable items. In case of unfavorable items, the scoring is reversed, from 1(strongly agree) to 4(strongly disagree).

STATISTICAL TECHNIQUE USED

In the present study researcher used simple percentage method technique.

VARIATE STRUCTURE

According to H.E. Garrett, "Variable are attributes or qualities which exhibit differences in magnitude and which vary along some dimensions". In research, variables are any characteristics that can take on different values, such as height, age, temperature or test scores. Researchers often manipulate or measure independent and dependent variables in studies to test cause-and-effect relationship.

TYPES OF VARIABLES

There are two types of Variables found in research:

1. **Independent Variables**- Independent variable is the cause. Its value is independent of other variables in the study.
2. **Dependent Variables**- Dependent variable is the effect. Its value depends on changes in the independent variable.

SCORING

Scoring procedure is very simple. The correct answer is awarded '1' score and incorrect answer is scored as '0'.

PROCEDURE OF DATA COLLECTION

After having the question-booklet, the investigator visited the different schools for the purpose of collecting the data.

CHAPTER-III

ANALYSIS AND INTERPRETATION OF DATA

INTRODUCTION

Analysis of data is considered to be most important stage and heart of the researchwork. It involves breaking down existing complex factor into simple parts and putting the parts together in new arrangements for the purpose of interpretation. Analysis of data includes comparison of the outcome of the various treatments upon the several groups and the making of decision as to the achievement of goals of research. In the process of analysis and interpretation of data, the first step involves the organization of the data. Once the data is organized the researcher can be move to the second step in data analysis i.e., description. Only after the data has been organized and described, the researcher begins the final and most crucial step i.e., interpretation**.** Interpretation involves employing the findings, answering research questions and connecting significance to specific results.

The main function of analysis and interpretation of the data is to reveal useful information for decision making. Thus, the analysis and interpretation of the data collected for study is important to draw out significant conclusions. Importance of analysis and interpretation of the data has been beautifully described by following quote:

"Any piece of research is generally directed towards the solution of the problem and analysis as well as interpretation in the research helps to know the logical and inferential part of research"- Best &Khan (1993).

Following the methodology and procedure described in the earlier chapter, the data on the Environment Awareness Gender,Age, type of familyof 100 elementary school students were collected from different Government Schools of district Hamirpur of Himachal Pradesh. This chapter presents the analysis and interpretation of obtained data in a systematic manner.

The Table-1 Present the percentage difference of Environmental Awareness among elementary students of District Hamirpur In Himachal Pradesh based on their Family Background

TABLE-1

Present the percentage difference of Environmental Awareness among elementary students of District Hamirpur in Himachal Pradesh based on their Family Background

Sr No.	Family Background	N	Environmental Awareness Score	Percentage
1	Joint family	57	2896	59.62%
2	Nuclear Family	43	3976	57.56%

The table- 1 indicates that the obtained percentage of environmental awareness scale of joint family background students is 59.62% and nuclear family students is 57.56, which means that joint family background students are more oriented towards environmental awareness. Hence, the null hypothesis that "there will be significant difference on Environmental Awareness among elementary students on the basis of family background" was accepted.

The Table-2 presents the calculated statistics of Environmental Awareness among elementary students based on gender

TABLE-2

Present the percentage difference of Environmental Awareness among elementary students of District Hamirpur in Himachal Pradesh based on their gender

Sr No.	Gender	N	Environmental Awareness Score	Percentage
1	Male	57	3441	58.82
2	Female	43	3401	58.14

The table- 2 indicates that the obtained percentage of environmental awareness scale of Male elementary students is 58.82 and female elementary students is 59.62, which means that female elementary students are show more concern towards environmental awareness. Hence, the null hypothesis that "There will be no significant difference in environmental awareness of elementary students on the basis of gender" was rejected.

3.2 DISCUSSION OF THE RESULTS

This section deals with discussion on findings of the present study in a systematic manner as given below:

3.2.1 Differences in the Environmental Awareness of Elementary School Students based on Age, Gender and Type of family

The first finding of the present study referring to type of family difference in environmental awareness revealed that no significant difference was found in nuclear and joint family elementary school students. The finding of the study was in agreement with the previous research studies conducted by Sahaya & Paul (2005), Hausbeck, Millbrath & Enright (1992).

The second finding of the present study referring to gender difference in environmental awareness revealed that no significant differences was found in male and female elementary school students. The finding of the study was assisted by the previous studies conducted by Banga, Chaman Lal (2020), Parul, Vikas, Ritu Bala (2022), Sahaya & Paul (2005), Kahan & Friedman (1995), Shivamourthy (2013), Wahab et.at. (2010).

The third finding of the present study referring to age differences in environmental awareness revealed that no significant difference was found in elementary school students with respect to their age. The finding of the study was supported by the previous research studies conducted by Hausbeck, Millbrath & Enright (1992), Walford (2002)

CHAPTER-IV

CONCLUSION, EDUCATIONAL IMPLICATIONS AND FURTHUR SUGGESTIONS

CONCLUSION

There is a necessity to make in the areas- health and hygiene, pollution, protection of wildlife, population explosion, importance of environment and other aspects in environmental education. Study of environment education helps the human life to be happy and contributes the quality of life suited to the present-day situations. This promotes interaction between local and regional communities, conflict prevention and resolution in critical environmental situations. This has direct implications for policy development implementation in order to develop strong links between research community, policy makers and environmental management experts.

EDUCATIONAL IMPLICATIONS

The present study has its implication for the teacher educators, educational planners, parents, educators and educational administrators. Environmental education should be provided to the teachers of Science and Arts faculties in order to preserve the delicate eco-system of our planet earth by imparting knowledge, understanding and skills about environmental and its allies problems. It will be very unfortunate for us to realize such a very low awareness towards environment among elementary school teachers. Such an attitude towards environment cannot be changed unless education consciously tries to develop environmental awareness among the students. Unless people have a sensitive and loving attitude towards nature, externally enforced laws and regulations will remain ineffective.

SUGGESTIONS FOR FURTHER RESEARCH

Environmental education is a vast relatively new subject. There are various field on which research can be conducted. Some of these are suggested below:

1. Development of environment education material for different classes.
2. Research in appropriate technology for promoting environmental education.

3. Survey of present attitude of people towards environment.
4. Development of curriculum in environmental education for different levels of education, pre-school to university level.
5. Production of text-books, additional reading materials and audio-visual aids for different level of education.

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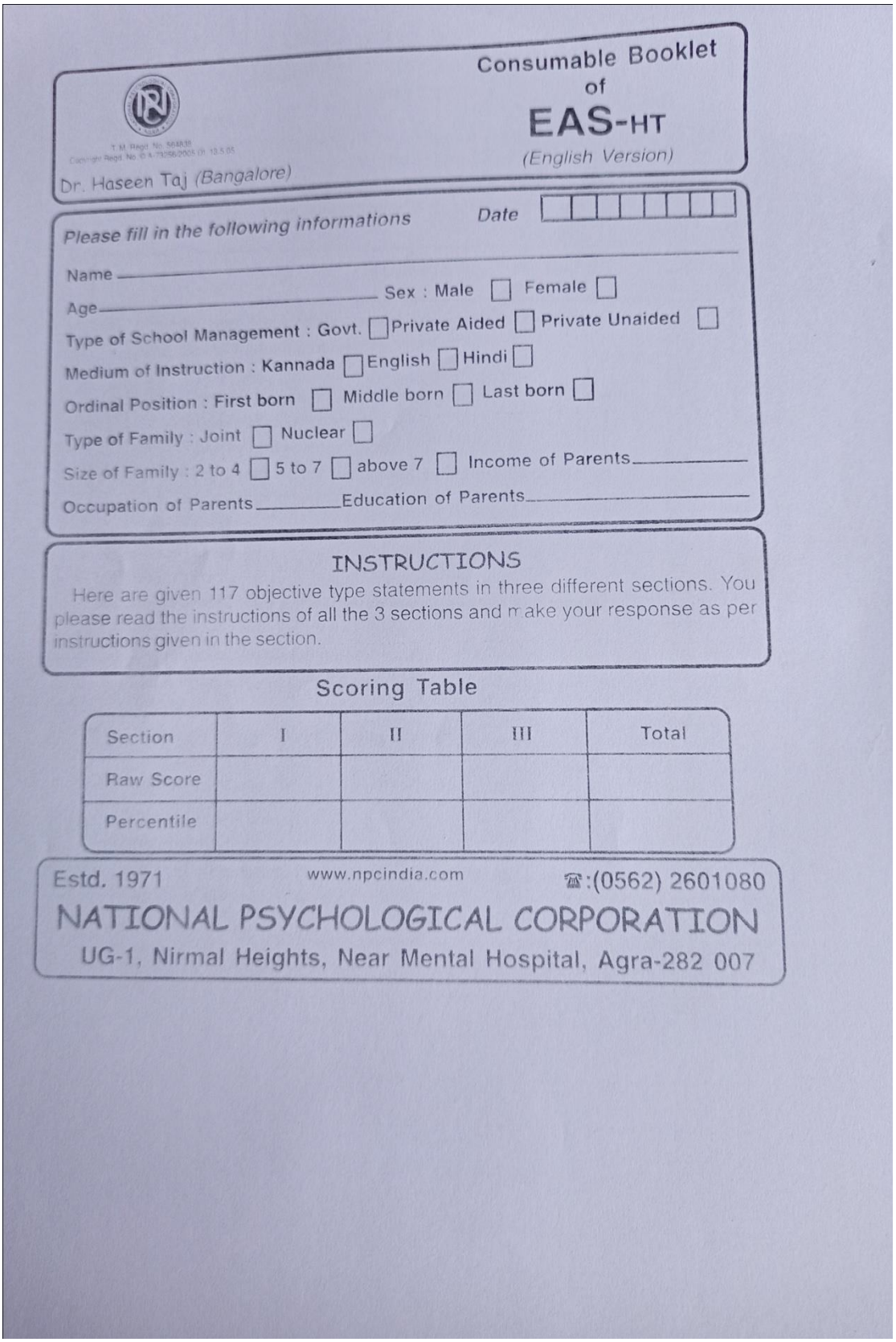


Consumable Booklet
of
EAS-HT
(English Version)

T. M. Regd. No. 564838
Copyright Regd. No. © A-73256/2005 Dt. 13.5.05

Dr. Haseen Taj (Bangalore)

Please fill in the following informations Date

Name _____

Age _____ Sex : Male ☐ Female ☐

Type of School Management : Govt. ☐ Private Aided ☐ Private Unaided ☐

Medium of Instruction : Kannada ☐ English ☐ Hindi ☐

Ordinal Position : First born ☐ Middle born ☐ Last born ☐

Type of Family : Joint ☐ Nuclear ☐

Size of Family : 2 to 4 ☐ 5 to 7 ☐ above 7 ☐ Income of Parents _____

Occupation of Parents _____ Education of Parents _____

INSTRUCTIONS

Here are given 117 objective type statements in three different sections. You please read the instructions of all the 3 sections and make your response as per instructions given in the section.

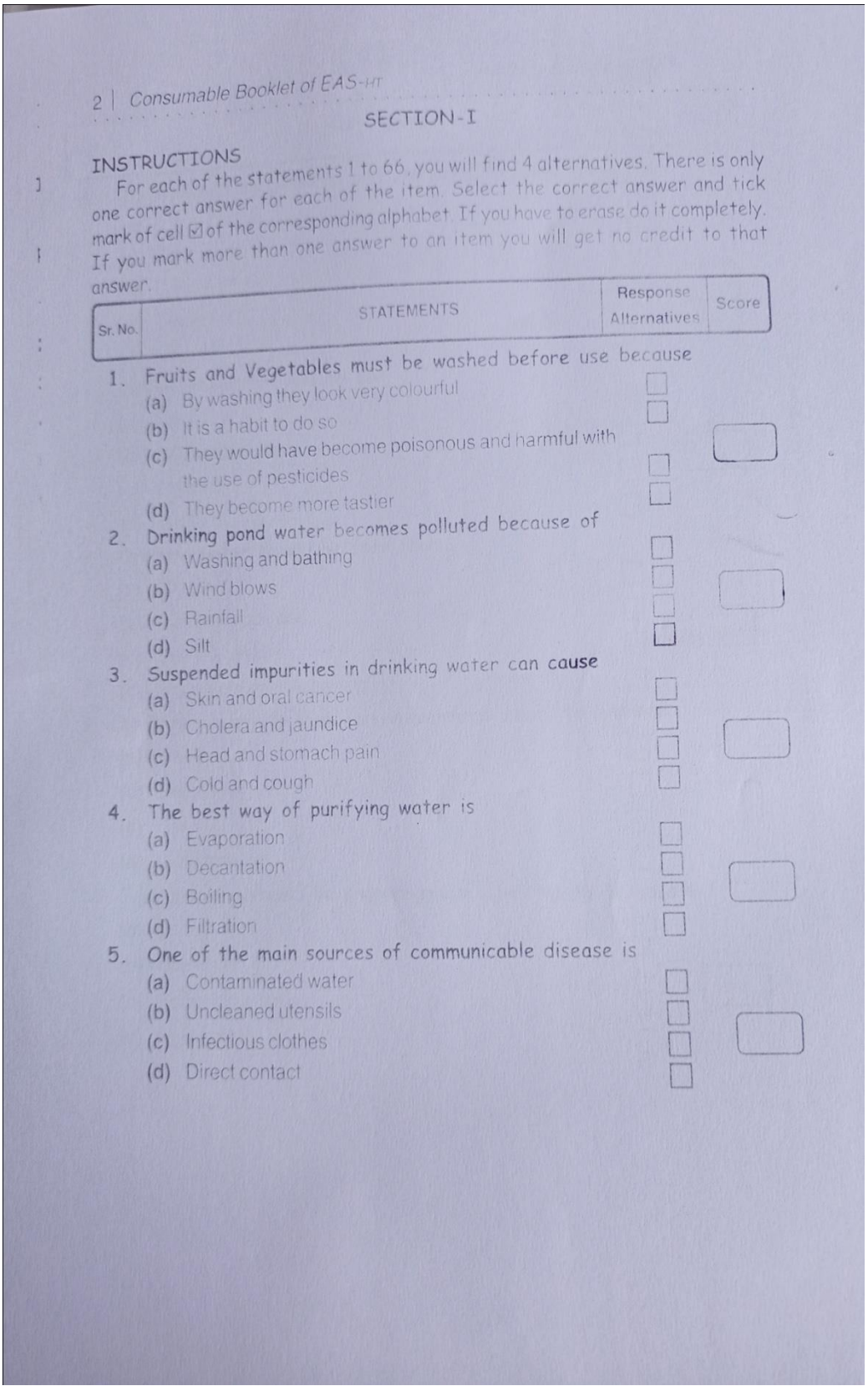
Scoring Table

Section	I	II	III	Total
Raw Score				
Percentile				

Estd. 1971 www.npcindia.com ☎:(0562) 2601080

NATIONAL PSYCHOLOGICAL CORPORATION

UG-1, Nirmal Heights, Near Mental Hospital, Agra-282 007



2 | Consumable Booklet of EAS-HT

SECTION-I

INSTRUCTIONS

For each of the statements 1 to 66, you will find 4 alternatives. There is only one correct answer for each of the item. Select the correct answer and tick mark of cell ☑ of the corresponding alphabet. If you have to erase do it completely. If you mark more than one answer to an item you will get no credit to that answer.

Sr. No.	STATEMENTS	Response Alternatives	Score

1. Fruits and Vegetables must be washed before use because
   - (a) By washing they look very colourful
   - (b) It is a habit to do so
   - (c) They would have become poisonous and harmful with the use of pesticides
   - (d) They become more tastier
2. Drinking pond water becomes polluted because of
   - (a) Washing and bathing
   - (b) Wind blows
   - (c) Rainfall
   - (d) Silt
3. Suspended impurities in drinking water can cause
   - (a) Skin and oral cancer
   - (b) Cholera and jaundice
   - (c) Head and stomach pain
   - (d) Cold and cough
4. The best way of purifying water is
   - (a) Evaporation
   - (b) Decantation
   - (c) Boiling
   - (d) Filtration
5. One of the main sources of communicable disease is
   - (a) Contaminated water
   - (b) Uncleaned utensils
   - (c) Infectious clothes
   - (d) Direct contact

Sr. No.	STATEMENTS	Response Alternatives	Score

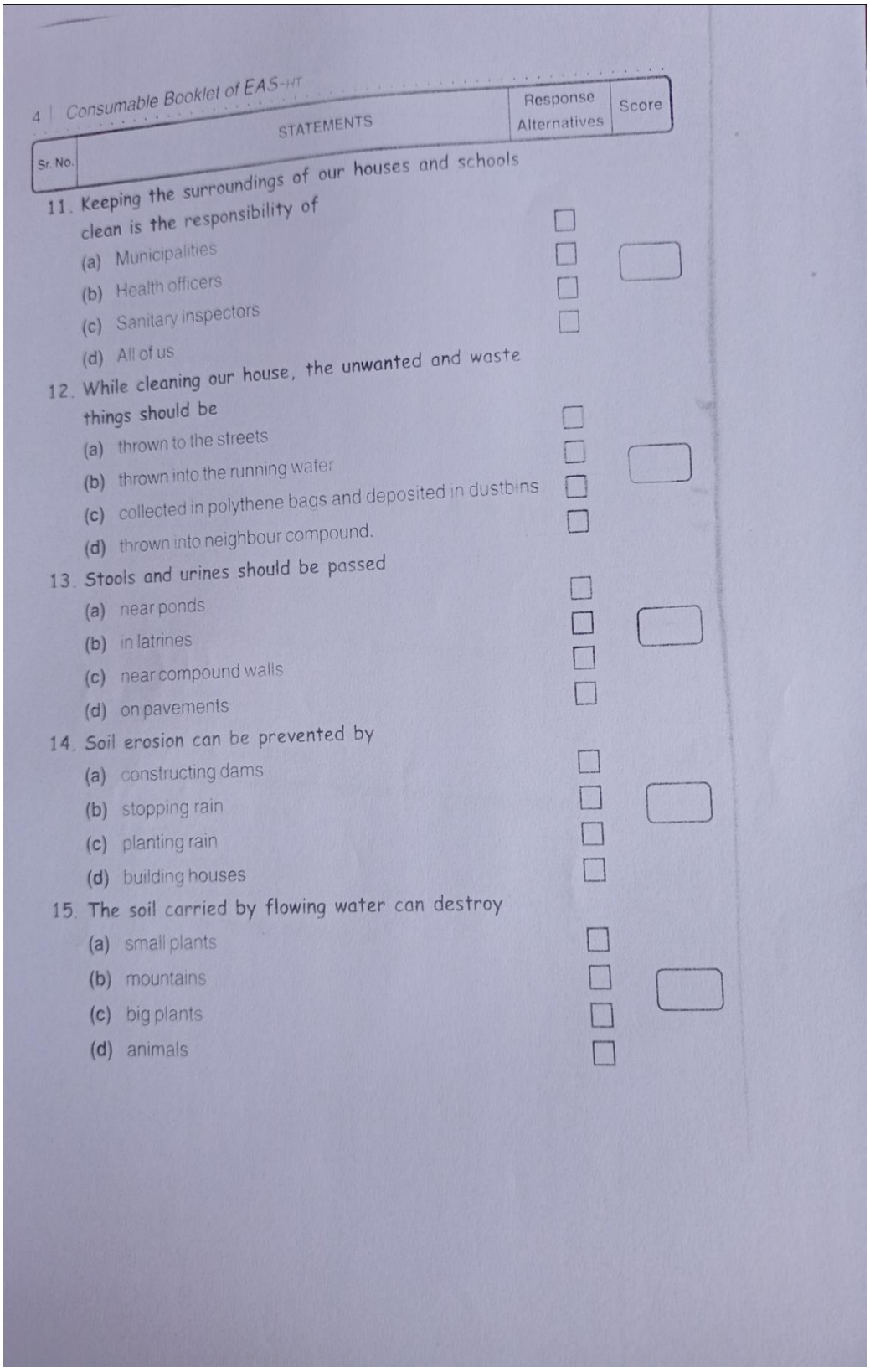
6. Plants should be nurtured and protected because they give out
   - (a) Chlorophyll ☐
   - (b) Carbon dioxide ☐
   - (c) Oxygen ☐
   - (d) Nitrogen ☐

7. During respiration humans use
   - (a) Nitrate ☐
   - (b) Carbon dioxide ☐
   - (c) Oxygen ☐
   - (d) Methane ☐

8. Drinking water should be free from
   - (a) Oxygen ☐
   - (b) Bleaching powder ☐
   - (c) Disease germs ☐
   - (d) Potassium permanganate ☐

9. It is necessary to keep our environment clean, to prevent
   - (a) Health ☐
   - (b) Diseases ☐
   - (c) Smell ☐
   - (d) Garbage ☐

10. Tree planting should be encouraged in cities mainly to ensure
    - (a) Fruits ☐
    - (b) Fuelwood ☐
    - (c) Fodder to animals ☐
    - (d) Pure air ☐



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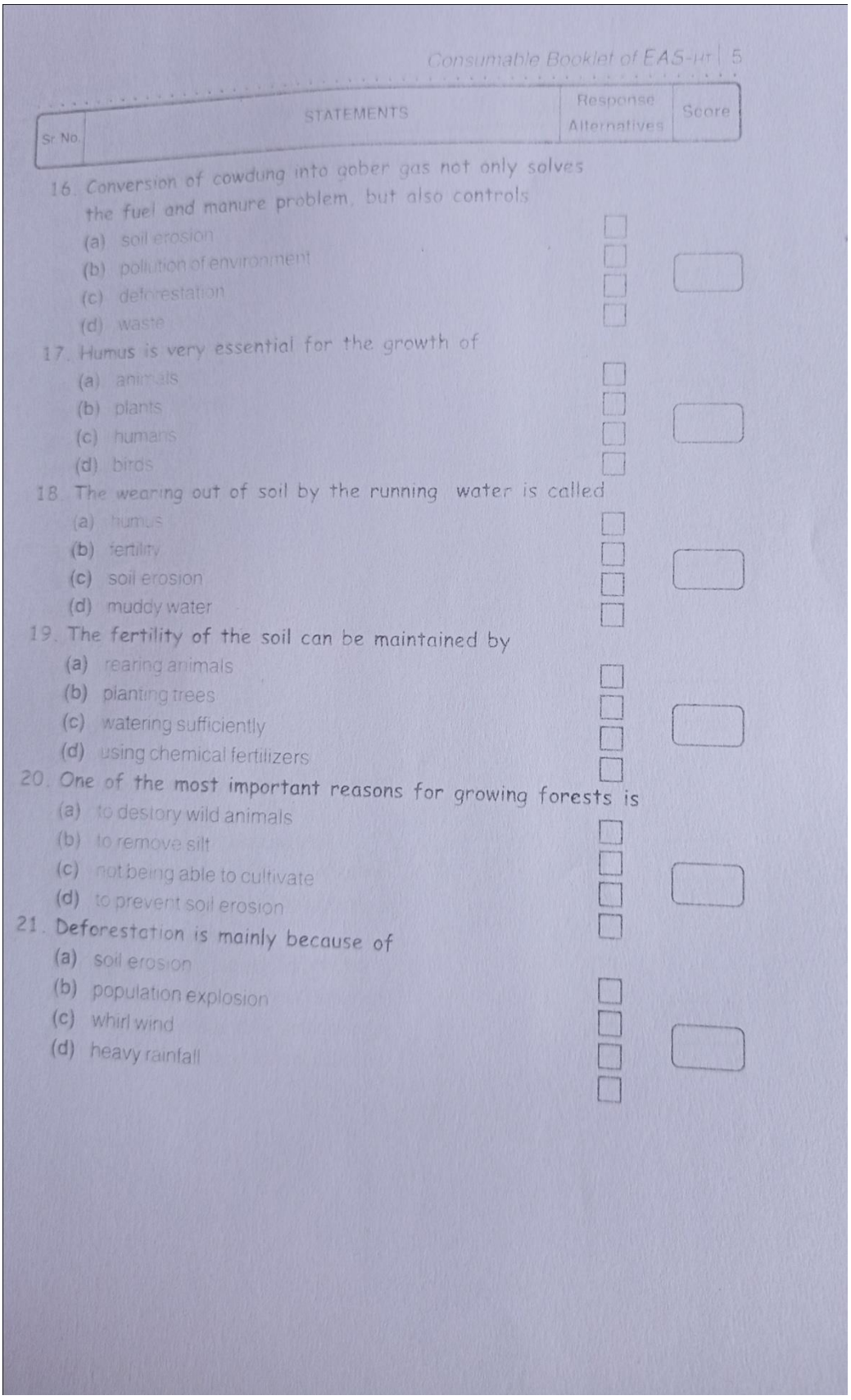
Sr. No.	STATEMENTS	Response Alternatives	Score

11. Keeping the surroundings of our houses and schools clean is the responsibility of
    (a) Municipalities
    (b) Health officers
    (c) Sanitary inspectors
    (d) All of us
12. While cleaning our house, the unwanted and waste things should be
    (a) thrown to the streets
    (b) thrown into the running water
    (c) collected in polythene bags and deposited in dustbins
    (d) thrown into neighbour compound.
13. Stools and urines should be passed
    (a) near ponds
    (b) in latrines
    (c) near compound walls
    (d) on pavements
14. Soil erosion can be prevented by
    (a) constructing dams
    (b) stopping rain
    (c) planting rain
    (d) building houses
15. The soil carried by flowing water can destroy
    (a) small plants
    (b) mountains
    (c) big plants
    (d) animals



Sr. No.	STATEMENTS	Response Alternatives	Score

16. Conversion of cowdung into gober gas not only solves the fuel and manure problem, but also controls
    (a) soil erosion
    (b) pollution of environment
    (c) deforestation
    (d) waste

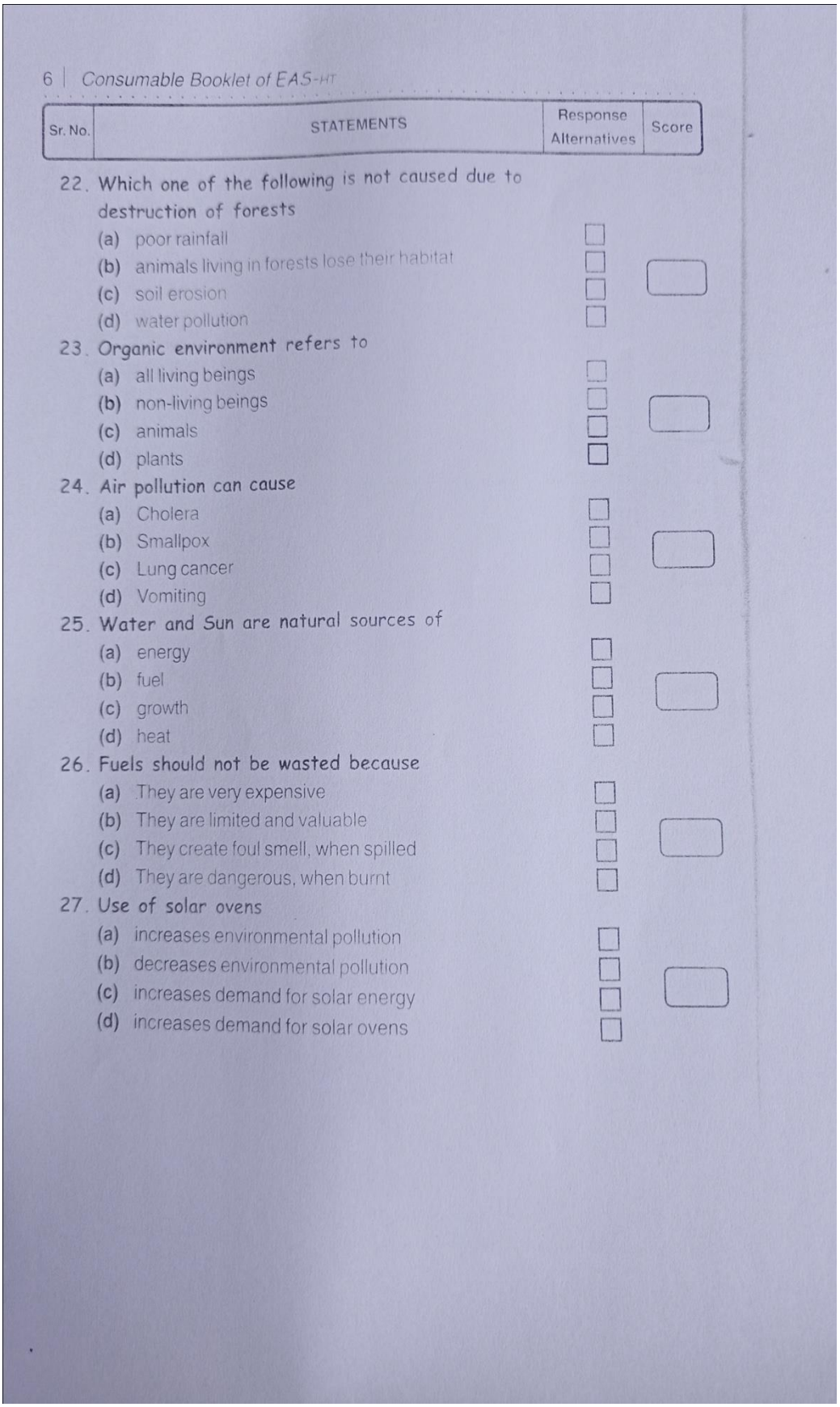
17. Humus is very essential for the growth of
    (a) animals
    (b) plants
    (c) humans
    (d) birds

18. The wearing out of soil by the running water is called
    (a) humus
    (b) fertility
    (c) soil erosion
    (d) muddy water

19. The fertility of the soil can be maintained by
    (a) rearing animals
    (b) planting trees
    (c) watering sufficiently
    (d) using chemical fertilizers

20. One of the most important reasons for growing forests is
    (a) to destory wild animals
    (b) to remove silt
    (c) not being able to cultivate
    (d) to prevent soil erosion

21. Deforestation is mainly because of
    (a) soil erosion
    (b) population explosion
    (c) whirl wind
    (d) heavy rainfall



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Sr. No.	STATEMENTS	Response Alternatives	Score

22. Which one of the following is not caused due to destruction of forests
    (a) poor rainfall
    (b) animals living in forests lose their habitat
    (c) soil erosion
    (d) water pollution

23. Organic environment refers to
    (a) all living beings
    (b) non-living beings
    (c) animals
    (d) plants

24. Air pollution can cause
    (a) Cholera
    (b) Smallpox
    (c) Lung cancer
    (d) Vomiting

25. Water and Sun are natural sources of
    (a) energy
    (b) fuel
    (c) growth
    (d) heat

26. Fuels should not be wasted because
    (a) They are very expensive
    (b) They are limited and valuable
    (c) They create foul smell, when spilled
    (d) They are dangerous, when burnt

27. Use of solar ovens
    (a) increases environmental pollution
    (b) decreases environmental pollution
    (c) increases demand for solar energy
    (d) increases demand for solar ovens

Sr. No.	STATEMENTS	Response Alternatives	Score

28. Resources such as water, sunlight, air, plants, hills, soils and metals are called as
    (a) artificial resources
    (b) natural resources
    (c) man made resources
    (d) earth resources

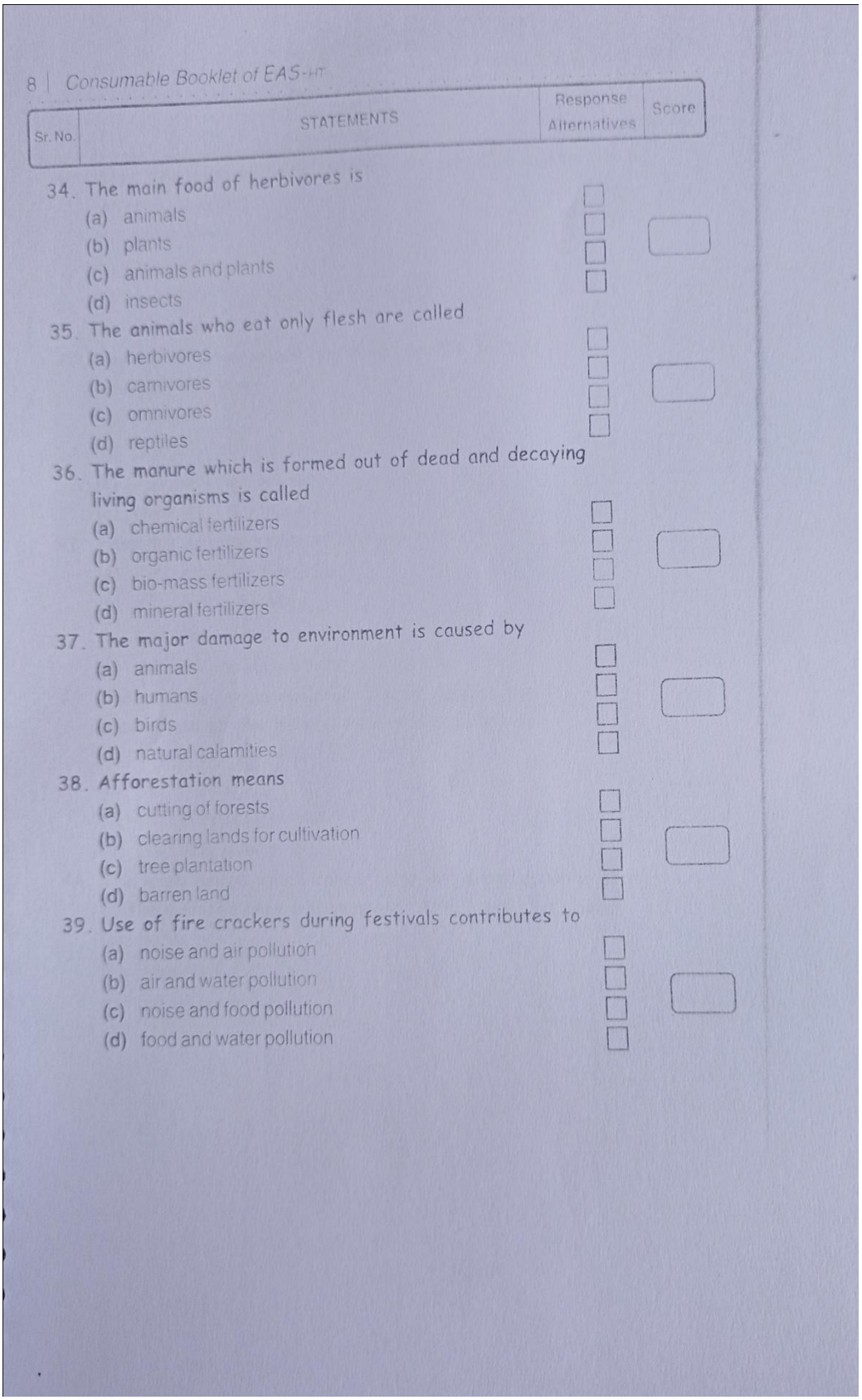
29. The main reason for air pollution is
    (a) household and agricultural emissions
    (b) industrial and motor vehicle emissions
    (c) motor vehicle and household emissions
    (d) household and industrial emissions

30. The depletion of forests can be replaced by
    (a) enacting laws
    (b) replacing trees
    (c) not using trees
    (d) by chasing away all herbivorous animals living in forests

31. Without air there can be no
    (a) rock on earth
    (b) water on earth
    (c) sunlight on earth
    (d) life on earth

32. There can be no vegetation without
    (a) water
    (b) animals
    (c) chemical fertilizers
    (d) money

33. The solar energy is
    (a) limited
    (b) exhaustible
    (c) non-renewable
    (d) non-exhaustible



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Sr. No.	STATEMENTS	Response Alternatives	Score

34. The main food of herbivores is
    (a) animals
    (b) plants
    (c) animals and plants
    (d) insects

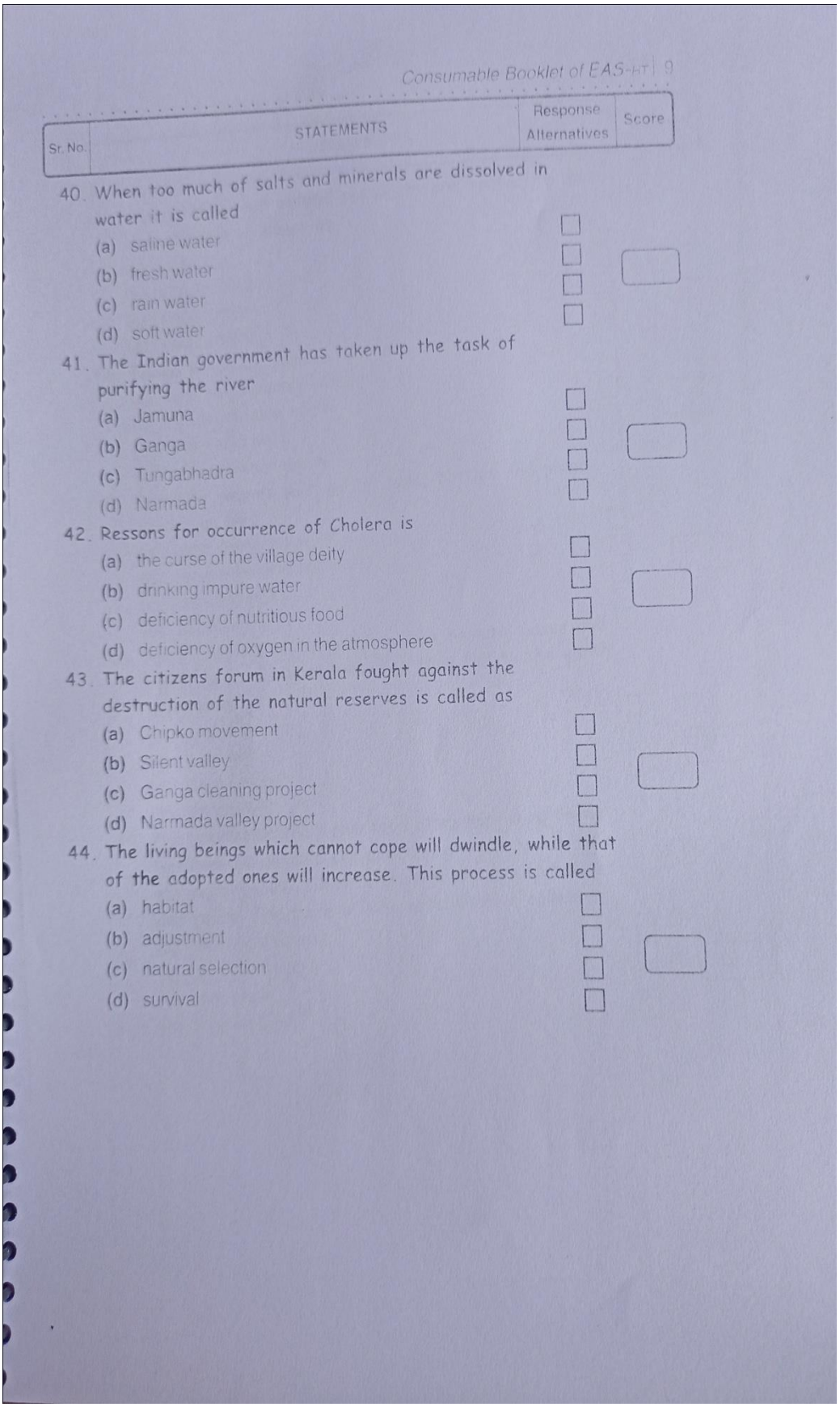
35. The animals who eat only flesh are called
    (a) herbivores
    (b) carnivores
    (c) omnivores
    (d) reptiles

36. The manure which is formed out of dead and decaying living organisms is called
    (a) chemical fertilizers
    (b) organic fertilizers
    (c) bio-mass fertilizers
    (d) mineral fertilizers

37. The major damage to environment is caused by
    (a) animals
    (b) humans
    (c) birds
    (d) natural calamities

38. Afforestation means
    (a) cutting of forests
    (b) clearing lands for cultivation
    (c) tree plantation
    (d) barren land

39. Use of fire crackers during festivals contributes to
    (a) noise and air pollution
    (b) air and water pollution
    (c) noise and food pollution
    (d) food and water pollution



Sr. No.	STATEMENTS	Response Alternatives	Score

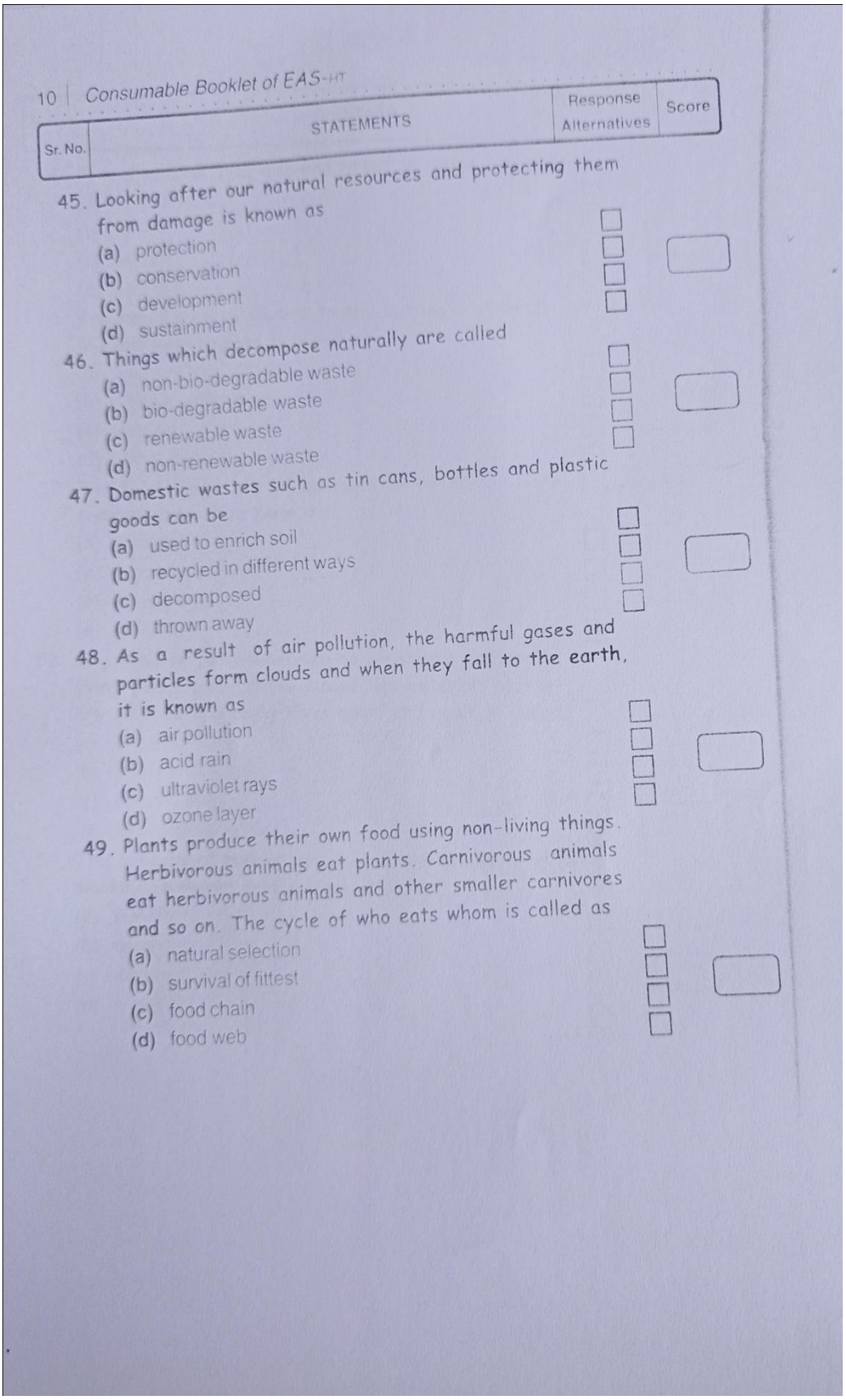
40. When too much of salts and minerals are dissolved in water it is called
    (a) saline water
    (b) fresh water
    (c) rain water
    (d) soft water

41. The Indian government has taken up the task of purifying the river
    (a) Jamuna
    (b) Ganga
    (c) Tungabhadra
    (d) Narmada

42. Ressons for occurrence of Cholera is
    (a) the curse of the village deity
    (b) drinking impure water
    (c) deficiency of nutritious food
    (d) deficiency of oxygen in the atmosphere

43. The citizens forum in Kerala fought against the destruction of the natural reserves is called as
    (a) Chipko movement
    (b) Silent valley
    (c) Ganga cleaning project
    (d) Narmada valley project

44. The living beings which cannot cope will dwindle, while that of the adopted ones will increase. This process is called
    (a) habitat
    (b) adjustment
    (c) natural selection
    (d) survival



Sr. No.	STATEMENTS	Response Alternatives	Score

45. Looking after our natural resources and protecting them from damage is known as
(a) protection
(b) conservation
(c) development
(d) sustainment

46. Things which decompose naturally are called
(a) non-bio-degradable waste
(b) bio-degradable waste
(c) renewable waste
(d) non-renewable waste

47. Domestic wastes such as tin cans, bottles and plastic goods can be
(a) used to enrich soil
(b) recycled in different ways
(c) decomposed
(d) thrown away

48. As a result of air pollution, the harmful gases and particles form clouds and when they fall to the earth, it is known as
(a) air pollution
(b) acid rain
(c) ultraviolet rays
(d) ozone layer

49. Plants produce their own food using non-living things. Herbivorous animals eat plants. Carnivorous animals eat herbivorous animals and other smaller carnivores and so on. The cycle of who eats whom is called as
(a) natural selection
(b) survival of fittest
(c) food chain
(d) food web

Sr. No.	STATEMENTS	Response Alternatives	Score

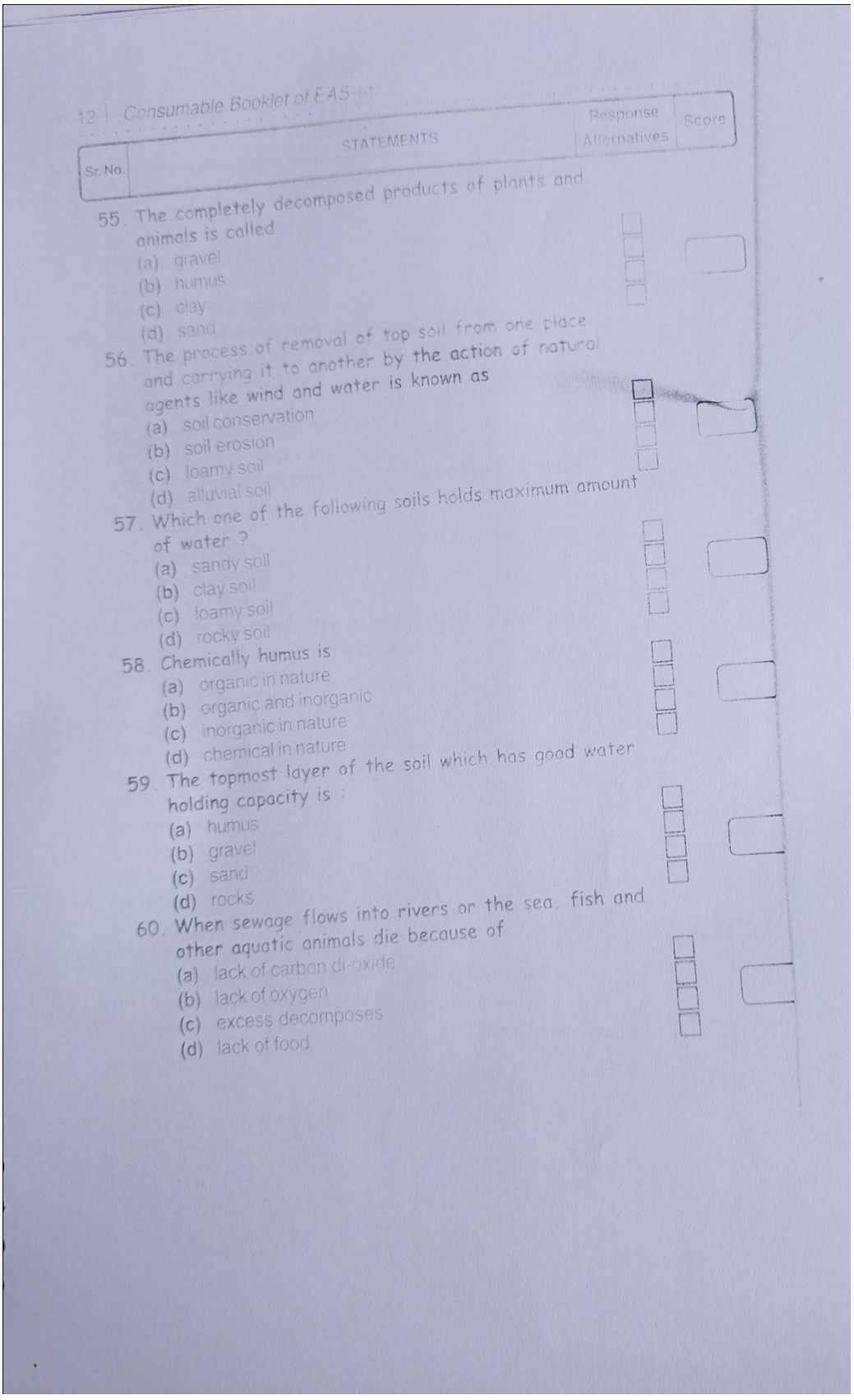
50. The organisms that live and breed in water are called
- (a) amphibians
- (b) herbivores
- (c) aquatic
- (d) carnivores

51. The resistance by women to the cutting of forest in Himalayan regions is known as
- (a) Silent valley
- (b) Chipko movement
- (c) Jagrithi
- (d) Vimochana

52. The food chains are linked together by one or more common species to form a
- (a) food chain
- (b) food web
- (c) energy web
- (d) biosphere

53. Any area or place where living organisms and non-living things co-exist, exchange the materials necessary for life and using them again and again is called
- (a) abiotic
- (b) biotic
- (c) ecosystem
- (d) aforestation

54. The process of making air, water and soil harmful by smoke, pesticides and sewage is called
- (a) pollution
- (b) decay
- (c) decomposers
- (d) contamination



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Sr. No.	STATEMENTS	Response Alternatives	Score

55. The completely decomposed products of plants and animals is called
(a) gravel
(b) humus
(c) clay
(d) sand

56. The process of removal of top soil from one place and carrying it to another by the action of natural agents like wind and water is known as
(a) soil conservation
(b) soil erosion
(c) loamy soil
(d) alluvial soil

57. Which one of the following soils holds maximum amount of water ?
(a) sandy soil
(b) clay soil
(c) loamy soil
(d) rocky soil

58. Chemically humus is
(a) organic in nature
(b) organic and inorganic
(c) inorganic in nature
(d) chemical in nature

59. The topmost layer of the soil which has good water holding capacity is :
(a) humus
(b) gravel
(c) sand
(d) rocks

60. When sewage flows into rivers or the sea, fish and other aquatic animals die because of
(a) lack of carbon di-oxide
(b) lack of oxygen
(c) excess decomposes
(d) lack of food

Sr. No.	STATEMENTS	Response Alternatives	Score

61. The excessive use of pesticides and fertilizers can pollute
    (a) air and soil
    (b) water and soil
    (c) water and air
    (d) plants and animals

62. All those resources that are replenished through relatively rapid natural cycles are called
    (a) exhaustible resources
    (b) renewabl resources
    (c) non-renewable resources
    (d) inexhaustible resources

63. Using the resources carefully without depleting them is called
    (a) renewability
    (b) conservation
    (c) non-renewability
    (d) development

64. Without plants animal life is impossible to exist due to
    (a) lack of oxygen for animals to respire
    (b) lack of food supply
    (c) both of (a) and (b)
    (d) lack of carbon dioxide

65. An environmentalist is a person who is interested in the conservation of
    (a) only forests
    (b) only animals
    (c) only humans
    (d) total eco-system

66. Air is
    (a) composed of compound gases
    (b) composed of a single gas
    (c) a mixture of different gases in different proportions
    (d) mixture of different gases in equal proportions

Total Score Section I

SECTION-II

INSTRUCTIONS

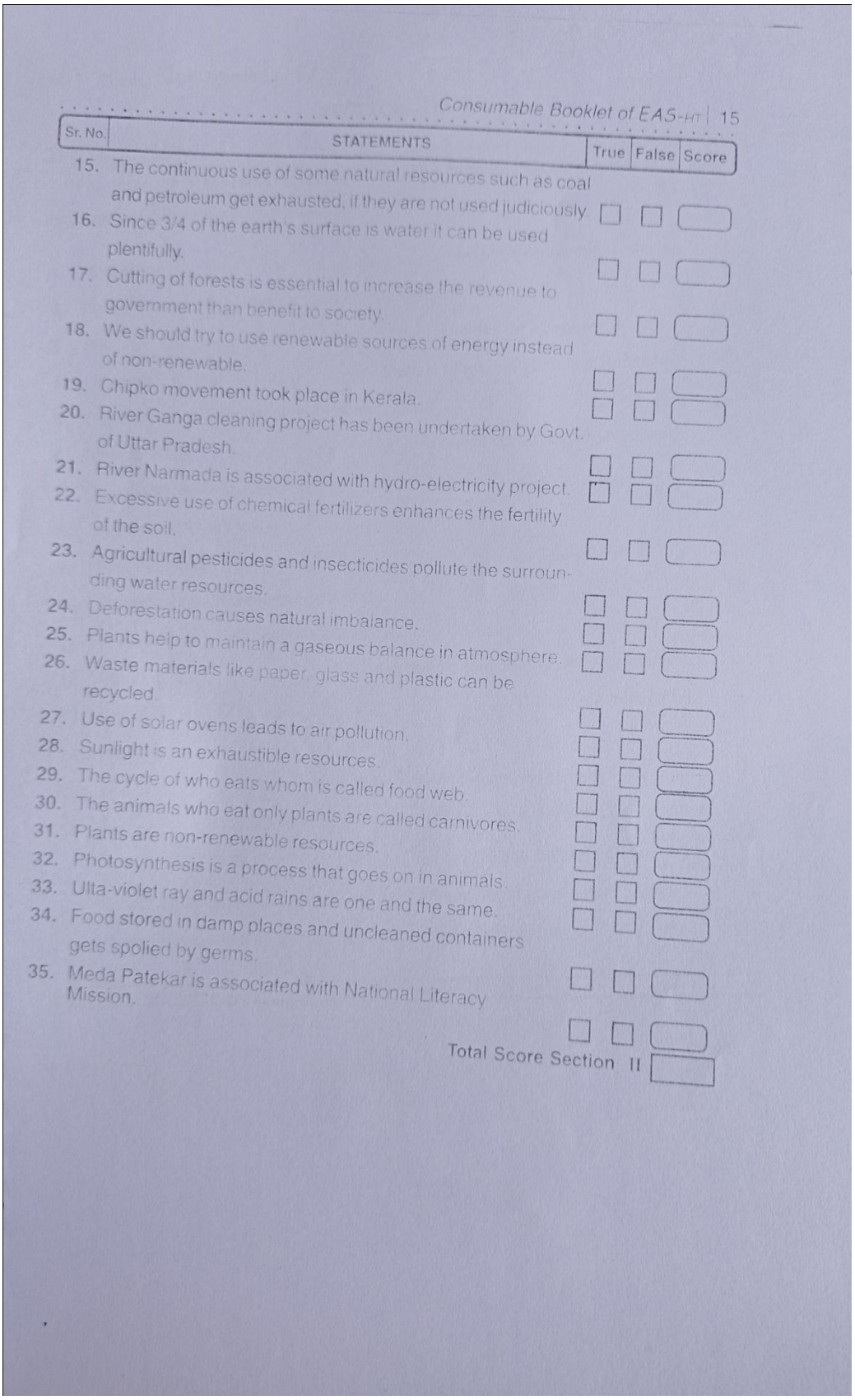
In this section, against each statement from 1 to 35 you will find 'True' and 'False' responses. If a statement is true tick mark ☑ the cell below. True responses, if a statement is false, tick mark ☑ the cell below false response against the appropriate number of statement. For example :

	True	False
Motor vehicle emissions polute air	☐	☐

The statement is true, so tick mark ☑ the cell below True.

Remember you have to indicate a correct response. In this way you have to respond to all the statements.

Sr. No.	STATEMENTS	True	False	Score
1.	Freely available natural resources such as forests, soil and water can be over used.	☐	☐	
2.	Drinking water ponds can also be used for washing and bathing	☐	☐	
3.	Birds and animals migrate during cold seasons.	☐	☐	
4.	Hailstorms will not damage crops and property.	☐	☐	
5.	During respiration humans use carbon dioxide.	☐	☐	
6.	Waste papers and banana peels can be thown on streets.	☐	☐	
7.	Spitting and throwing waste everywhere can cause diseases.	☐	☐	
8.	Environment includes all that we see around us.	☐	☐	
9.	Human life and progress depends upon the natural resources, so we should exploit them to the maximum.	☐	☐	
10.	Waste products of a factory should be let out to a nearby pond or river.	☐	☐	
11.	Plants absorb oxygen and release carbon dioxide.	☐	☐	
12.	Running water does not get polluted, even when the waste is dumped into it.	☐	☐	
13.	Underground water need not be purified before drinking.	☐	☐	
14.	All species of plants and animals should be protected to maintain balance in nature.	☐	☐	



Sr. No.	STATEMENTS	True	False	Score
15.	The continuous use of some natural resources such as coal and petroleum get exhausted, if they are not used judiciously.	☐	☐	☐
16.	Since 3/4 of the earth's surface is water it can be used plentifully.	☐	☐	☐
17.	Cutting of forests is essential to increase the revenue to government than benefit to society.	☐	☐	☐
18.	We should try to use renewable sources of energy instead of non-renewable.	☐	☐	☐
19.	Chipko movement took place in Kerala.	☐	☐	☐
20.	River Ganga cleaning project has been undertaken by Govt. of Uttar Pradesh.	☐	☐	☐
21.	River Narmada is associated with hydro-electricity project.	☐	☐	☐
22.	Excessive use of chemical fertilizers enhances the fertility of the soil.	☐	☐	☐
23.	Agricultural pesticides and insecticides pollute the surrounding water resources.	☐	☐	☐
24.	Deforestation causes natural imbalance.	☐	☐	☐
25.	Plants help to maintain a gaseous balance in atmosphere.	☐	☐	☐
26.	Waste materials like paper, glass and plastic can be recycled.	☐	☐	☐
27.	Use of solar ovens leads to air pollution.	☐	☐	☐
28.	Sunlight is an exhaustible resources.	☐	☐	☐
29.	The cycle of who eats whom is called food web.	☐	☐	☐
30.	The animals who eat only plants are called carnivores.	☐	☐	☐
31.	Plants are non-renewable resources.	☐	☐	☐
32.	Photosynthesis is a process that goes on in animals.	☐	☐	☐
33.	Ulta-violet ray and acid rains are one and the same.	☐	☐	☐
34.	Food stored in damp places and uncleaned containers gets spolied by germs.	☐	☐	☐
35.	Meda Patekar is associated with National Literacy Mission.	☐	☐	☐
	Total Score Section II			☐

SECTION-III

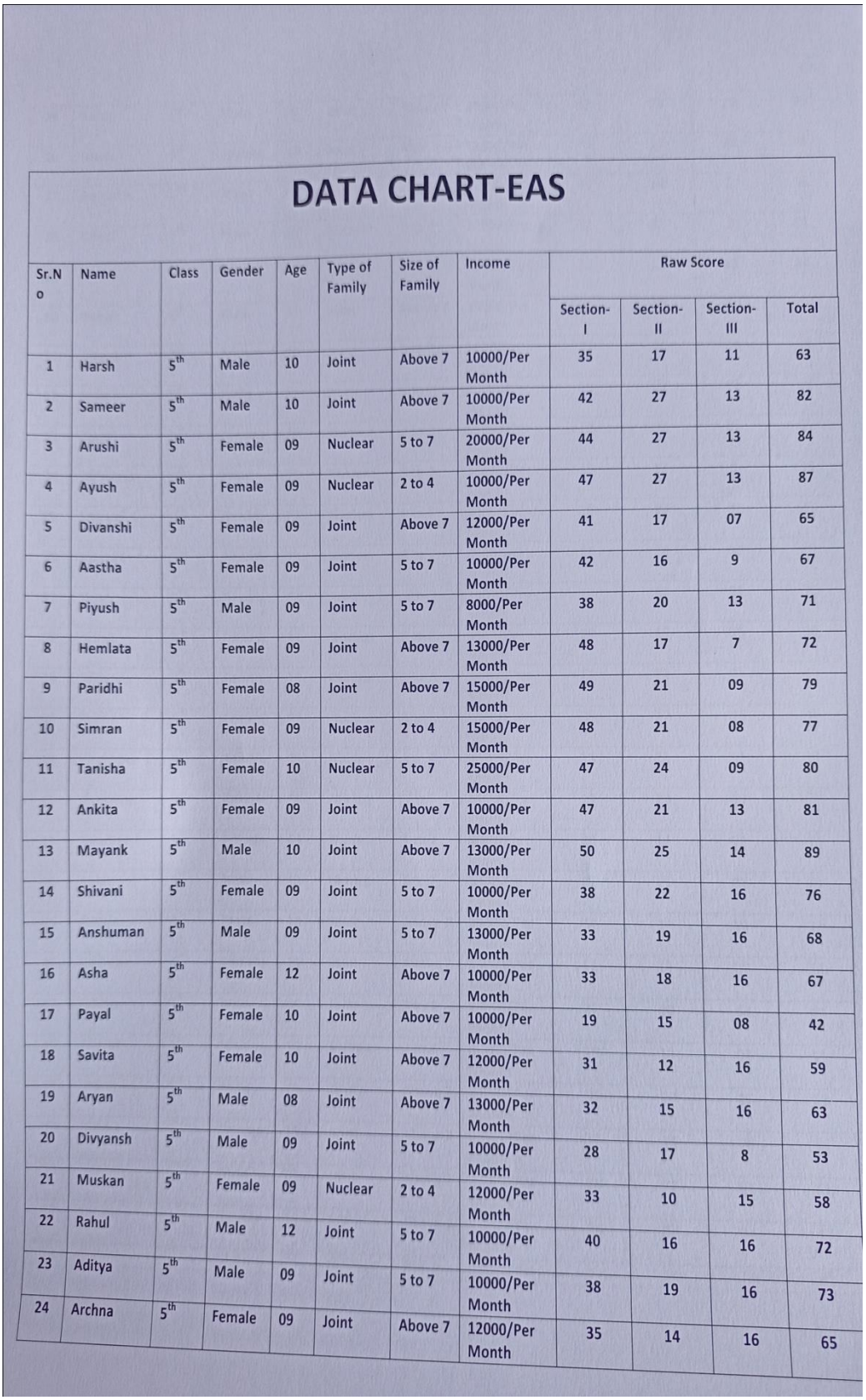
INSTRUCTIONS

For each of the items 1 to 16 fill up the blanks choosing correct answer provided in the end of this page in brackets.

1. Most of the.....we use comes from trees.
2. Water is given off by trees in a process called.....
3. The.....trees help to keep us cool.
4. The timber from.....trees is often used to make furniture.
5. Trees are often used by birds for their.....
6. Trees provide.....for building and heating houses.
7. Nuts and fruits from trees are an important source of.....
8. Trees help prevent soil.....
9. Trees help to cut down on.....pollution.
10. Decaying logs and leaves enrich the.....
11. Trees remove some pollutants from the.....
12. The.....we use on pancakes comes from trees.
13. Most of our.....is made from trees.
14. Trees use.....
15. .....is given off by trees in the process of photosynthesis.
16. The.....of pine trees is a favourite Christmas decoration.

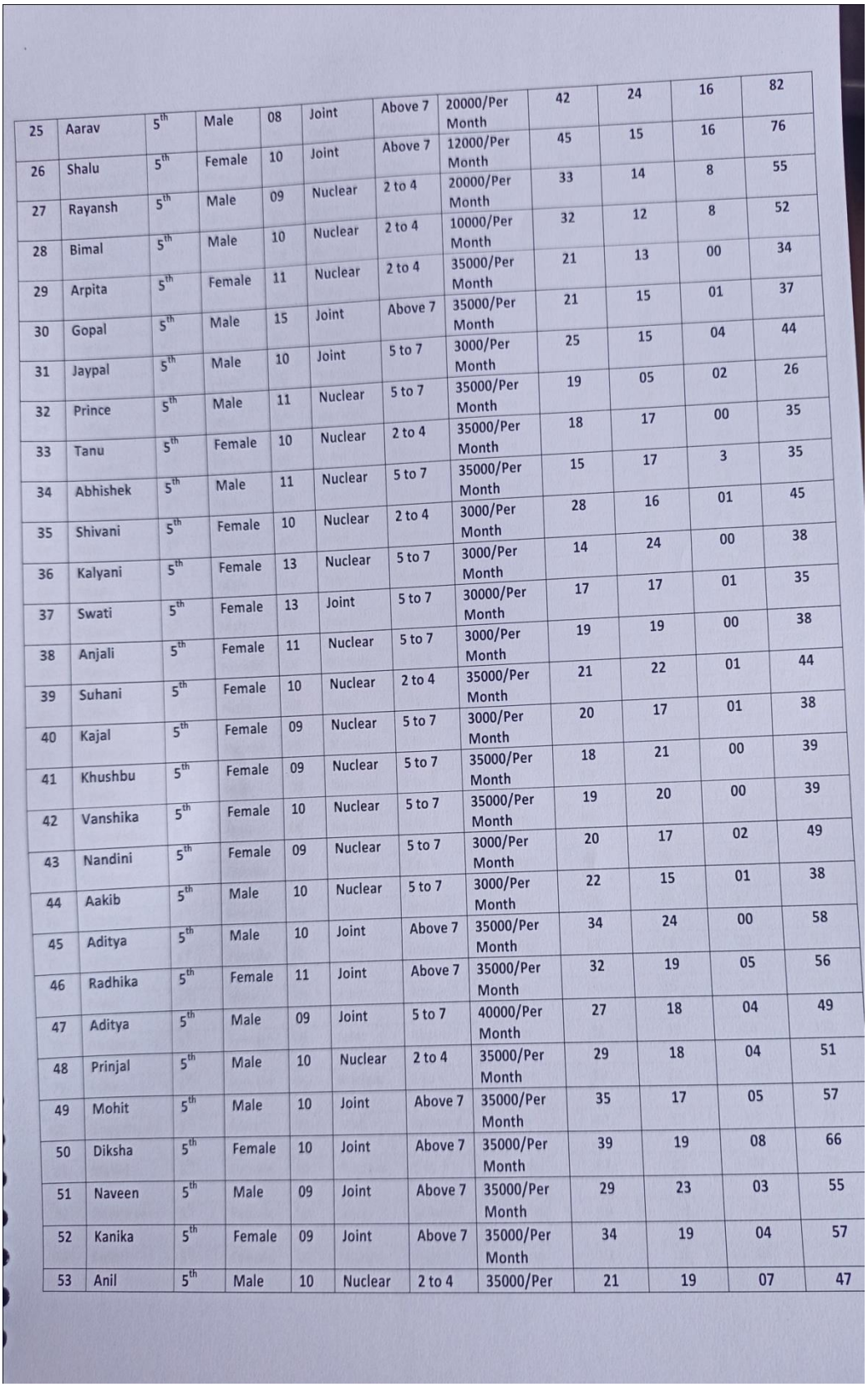
Total Score Section III [ ]

(Wood, erosion, noise, syrup, air, soil, shade, nest, oak, paper, cone, furniture, food, oxygen, carbon dioxide, transpiration).

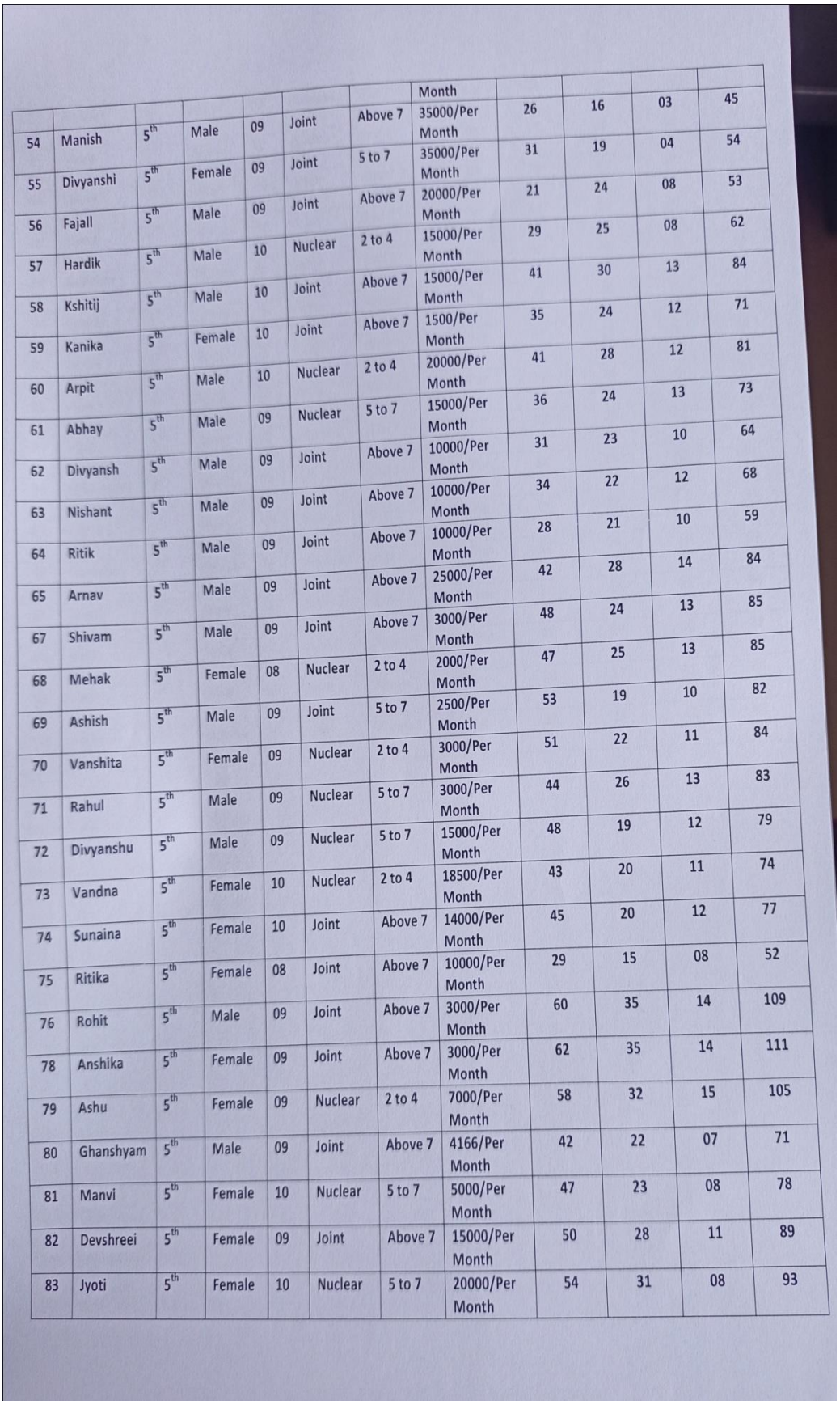


DATA CHART-EAS

Sr.No	Name	Class	Gender	Age	Type of Family	Size of Family	Income	Raw Score			
								Section-I	Section-II	Section-III	Total
1	Harsh	5th	Male	10	Joint	Above 7	10000/Per Month	35	17	11	63
2	Sameer	5th	Male	10	Joint	Above 7	10000/Per Month	42	27	13	82
3	Arushi	5th	Female	09	Nuclear	5 to 7	20000/Per Month	44	27	13	84
4	Ayush	5th	Female	09	Nuclear	2 to 4	10000/Per Month	47	27	13	87
5	Divanshi	5th	Female	09	Joint	Above 7	12000/Per Month	41	17	07	65
6	Aastha	5th	Female	09	Joint	5 to 7	10000/Per Month	42	16	9	67
7	Piyush	5th	Male	09	Joint	5 to 7	8000/Per Month	38	20	13	71
8	Hemlata	5th	Female	09	Joint	Above 7	13000/Per Month	48	17	7	72
9	Paridhi	5th	Female	08	Joint	Above 7	15000/Per Month	49	21	09	79
10	Simran	5th	Female	09	Nuclear	2 to 4	15000/Per Month	48	21	08	77
11	Tanisha	5th	Female	10	Nuclear	5 to 7	25000/Per Month	47	24	09	80
12	Ankita	5th	Female	09	Joint	Above 7	10000/Per Month	47	21	13	81
13	Mayank	5th	Male	10	Joint	Above 7	13000/Per Month	50	25	14	89
14	Shivani	5th	Female	09	Joint	5 to 7	10000/Per Month	38	22	16	76
15	Anshuman	5th	Male	09	Joint	5 to 7	13000/Per Month	33	19	16	68
16	Asha	5th	Female	12	Joint	Above 7	10000/Per Month	33	18	16	67
17	Payal	5th	Female	10	Joint	Above 7	10000/Per Month	19	15	08	42
18	Savita	5th	Female	10	Joint	Above 7	12000/Per Month	31	12	16	59
19	Aryan	5th	Male	08	Joint	Above 7	13000/Per Month	32	15	16	63
20	Divyansh	5th	Male	09	Joint	5 to 7	10000/Per Month	28	17	8	53
21	Muskan	5th	Female	09	Nuclear	2 to 4	12000/Per Month	33	10	15	58
22	Rahul	5th	Male	12	Joint	5 to 7	10000/Per Month	40	16	16	72
23	Aditya	5th	Male	09	Joint	5 to 7	10000/Per Month	38	19	16	73
24	Archna	5th	Female	09	Joint	Above 7	12000/Per Month	35	14	16	65



25	Aarav	5th	Male	08	Joint	Above 7	20000/Per Month	42	24	16	82
26	Shalu	5th	Female	10	Joint	Above 7	12000/Per Month	45	15	16	76
27	Rayansh	5th	Male	09	Nuclear	2 to 4	20000/Per Month	33	14	8	55
28	Bimal	5th	Male	10	Nuclear	2 to 4	10000/Per Month	32	12	8	52
29	Arpita	5th	Female	11	Nuclear	2 to 4	35000/Per Month	21	13	00	34
30	Gopal	5th	Male	15	Joint	Above 7	35000/Per Month	21	15	01	37
31	Jaypal	5th	Male	10	Joint	5 to 7	3000/Per Month	25	15	04	44
32	Prince	5th	Male	11	Nuclear	5 to 7	35000/Per Month	19	05	02	26
33	Tanu	5th	Female	10	Nuclear	2 to 4	35000/Per Month	18	17	00	35
34	Abhishek	5th	Male	11	Nuclear	5 to 7	35000/Per Month	15	17	3	35
35	Shivani	5th	Female	10	Nuclear	2 to 4	3000/Per Month	28	16	01	45
36	Kalyani	5th	Female	13	Nuclear	5 to 7	3000/Per Month	14	24	00	38
37	Swati	5th	Female	13	Joint	5 to 7	30000/Per Month	17	17	01	35
38	Anjali	5th	Female	11	Nuclear	5 to 7	3000/Per Month	19	19	00	38
39	Suhani	5th	Female	10	Nuclear	2 to 4	35000/Per Month	21	22	01	44
40	Kajal	5th	Female	09	Nuclear	5 to 7	3000/Per Month	20	17	01	38
41	Khushbu	5th	Female	09	Nuclear	5 to 7	35000/Per Month	18	21	00	39
42	Vanshika	5th	Female	10	Nuclear	5 to 7	35000/Per Month	19	20	00	39
43	Nandini	5th	Female	09	Nuclear	5 to 7	3000/Per Month	20	17	02	49
44	Aakib	5th	Male	10	Nuclear	5 to 7	3000/Per Month	22	15	01	38
45	Aditya	5th	Male	10	Joint	Above 7	35000/Per Month	34	24	00	58
46	Radhika	5th	Female	11	Joint	Above 7	35000/Per Month	32	19	05	56
47	Aditya	5th	Male	09	Joint	5 to 7	40000/Per Month	27	18	04	49
48	Prinjal	5th	Male	10	Nuclear	2 to 4	35000/Per Month	29	18	04	51
49	Mohit	5th	Male	10	Joint	Above 7	35000/Per Month	35	17	05	57
50	Diksha	5th	Female	10	Joint	Above 7	35000/Per Month	39	19	08	66
51	Naveen	5th	Male	09	Joint	Above 7	35000/Per Month	29	23	03	55
52	Kanika	5th	Female	09	Joint	Above 7	35000/Per Month	34	19	04	57
53	Anil	5th	Male	10	Nuclear	2 to 4	35000/Per	21	19	07	47



							Month				
54	Manish	5th	Male	09	Joint	Above 7	35000/Per Month	26	16	03	45
55	Divyanshi	5th	Female	09	Joint	5 to 7	35000/Per Month	31	19	04	54
56	Fajall	5th	Male	09	Joint	Above 7	20000/Per Month	21	24	08	53
57	Hardik	5th	Male	10	Nuclear	2 to 4	15000/Per Month	29	25	08	62
58	Kshitij	5th	Male	10	Joint	Above 7	15000/Per Month	41	30	13	84
59	Kanika	5th	Female	10	Joint	Above 7	1500/Per Month	35	24	12	71
60	Arpit	5th	Male	10	Nuclear	2 to 4	20000/Per Month	41	28	12	81
61	Abhay	5th	Male	09	Nuclear	5 to 7	15000/Per Month	36	24	13	73
62	Divyansh	5th	Male	09	Joint	Above 7	10000/Per Month	31	23	10	64
63	Nishant	5th	Male	09	Joint	Above 7	10000/Per Month	34	22	12	68
64	Ritik	5th	Male	09	Joint	Above 7	10000/Per Month	28	21	10	59
65	Arnav	5th	Male	09	Joint	Above 7	25000/Per Month	42	28	14	84
67	Shivam	5th	Male	09	Joint	Above 7	3000/Per Month	48	24	13	85
68	Mehak	5th	Female	08	Nuclear	2 to 4	2000/Per Month	47	25	13	85
69	Ashish	5th	Male	09	Joint	5 to 7	2500/Per Month	53	19	10	82
70	Vanshita	5th	Female	09	Nuclear	2 to 4	3000/Per Month	51	22	11	84
71	Rahul	5th	Male	09	Nuclear	5 to 7	3000/Per Month	44	26	13	83
72	Divyanshu	5th	Male	09	Nuclear	5 to 7	15000/Per Month	48	19	12	79
73	Vandna	5th	Female	10	Nuclear	2 to 4	18500/Per Month	43	20	11	74
74	Sunaina	5th	Female	10	Joint	Above 7	14000/Per Month	45	20	12	77
75	Ritika	5th	Female	08	Joint	Above 7	10000/Per Month	29	15	08	52
76	Rohit	5th	Male	09	Joint	Above 7	3000/Per Month	60	35	14	109
78	Anshika	5th	Female	09	Joint	Above 7	3000/Per Month	62	35	14	111
79	Ashu	5th	Female	09	Nuclear	2 to 4	7000/Per Month	58	32	15	105
80	Ghanshyam	5th	Male	09	Joint	Above 7	4166/Per Month	42	22	07	71
81	Manvi	5th	Female	10	Nuclear	5 to 7	5000/Per Month	47	23	08	78
82	Devshreei	5th	Female	09	Joint	Above 7	15000/Per Month	50	28	11	89
83	Jyoti	5th	Female	10	Nuclear	5 to 7	20000/Per Month	54	31	08	93

84	Rajveer	5th	Male	13	Nuclear	5 to 7	20000/Per Month	55	28	14	97
85	Sumit	5th	Male	13	Nuclear	5 to 7	15000/Per Month	54	29	11	94
86	Gopal	5th	Male	10	Joint	Above 7	15000/Per Month	50	28	11	89
87	Komal	5th	Female	10	Joint	5 to 7	20000/Per Month	44	29	10	83
89	Sonakshi	5th	Female	09	Joint	5 to 7	10000/Per Month	54	29	11	94
90	Roshan	5th	Female	10	Joint	Above 7	10000/Per Month	53	30	11	94
91	Kamal	5th	Male	11	Joint	Above 7	20000/Per Month	52	28	14	94
92	Amit	5th	Male	09	Joint	Above 7	15000/Per Month	46	24	11	81
93	Vijay	5th	Male	12	Nuclear	5 to 7	15000/Per Month	52	28	11	91
94	Meenakshi	5th	Female	10	Nuclear	5 to 7	15000/Per Month	54	29	11	94
95	Jugnesh	5th	Male	10	Nuclear	5 to 7	10000/Per Month	57	31	11	99
96	Tammna	5th	Female	09	Nuclear	2 to 4	15000/Per Month	58	29	10	97
97	Rahul	5th	Male	10	Nuclear	2 to 4	15000/Per Month	54	29	11	94
98	Aksh	5th	Male	10	Joint	Above 7	16000/Per Month	42	19	10	71
99	Ajay	5th	Male	10	Joint	Above 7	8000/Per Month	38	17	11	66
100	Archana	5th	Female	10	Joint	Above 7	5000/Per Month	39	17	11	67

Male :- 49

Female :- 51 Total :- 100