

Directorate of Education

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Additional Support Material on Value Based Questions for the Session 2012-2013

Subject: Science

Class : X

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VALUE BASED QUESTIONS

CLASS-X

SCIENCE-SA-II

2012-2013

Chapter-1 CHEMICAL REACTION AND EQUATIONS

Q-1. Why parents are advised to discourage their children to eat chips and junk food?

Chapter-2 ACID, BASES AND SALTS

Q-2. Brushing our teeth twice a day is a well known saying. Justify this statement.

Q-3. Farmers are using a large number. of Pesticides and fertilizers in their fields to increase crop production and to enhance their profits. But by doing so they are causing damage to the soil as well as to the environment. Do you agree with this statement? Why should we avoid eating fruits and vegetables without washing them properly?

Chapter -3 METALS AND NONMETALS

Q-4. Gold is a very precious metal. Pure gold is very soft it is therefore not suitable for making jewellery. It is alloyed with either Silver or Copper to make it hard. But sometimes jewellers mix a large quantity of copper and Silver in gold to earn more profit.

Q-i. What precautions should you take while purchasing gold jewellery?

Q-(ii). Why does Government insist on purchasing Hall Marked jewellery?

Q-5. Corrosion is a serious problem. Every year an enormous amount of money is spend to replace damaged iron. What steps can be taken to prevent this damage.

Q-6. Mercury is the only metal found in the liquid state. It is largely used in thermometers to measure the temperature. But mercury is a very dangerous metal as its density is very high. What two precautions you would take while handling the equipments containing Mercury?

Chaper-4. CARBON AND ITS COMPOUNDS

Q-7. Mrs. Anita observed that her cooking utensils are becoming black in colour and the flame of her gas stove is yellowish in colour what can be the reason for this sooty flame. How is this problem harmful for our environment? What steps should be taken to stop this process.

Q-8. Ethanol is used on a large scale at commercial level this is a very useful chemical. It is commonly called alcohol and is the active ingredient of alcoholic drink. But consumption of alcohol also causes drunkenness and this practice is Socially condemned. As a responsible student of class –X what steps you would take to discourage the use of alcohol.

Q-9. You must have seen advertisements stating that some vegetable oils are healthy. Saturated fatty acids which are said to be harmful for health. Why vegetable oils are considered healthy then Saturated fatty acids (ghee)? What precautions you would take in selecting a cooking oil.

Chapter – 5 PERIODIC CLASSIFICATION OF ELEMENTS

Q-11. Ria and Rama are students of Class-X. Ria is very much organized and maintained. The teachers love her. She earns a great respect in the class where as Rama is un-organised and always faces a lot of problems in handling life situations.

- (i). In your opinion how organization help in daily life?
- (ii). How can you relate the above fact with the chapter classification of elements. How classification of elements help us in studying them properly?

Q-10. Adulteration is becoming a very serious problem of our society. Study reveals that more people die because of food adulteration rather than hunger. Shopkeepers mix harmful chemicals and things in food items to earn more profit which may even lead to deaths.

- (i). Being a responsible citizen how can you fight against adulteration?
- (ii). Give an example of food adulteration.
- (iii) How will you test about the adulteration in this food item?

Chapter-6 LIFE PROCESSES

Q-12. Eating junk food results in several health problems including obesity and heart problems. Still lot of children prefer to eat junk food. What suggestion you will give to avoid eating junk food.

Q-13. Regular physical exercise for 45 minutes is advisable for normal functioning of human body. Comment upon the advantages of this statement/practice in daily life.

Q-14. Rahul wants to build up his body very quickly without following right exercise regime and balanced diet. Instead he started eating readymade food supplement.

- i). In your opinion was the step taken by Rahul is right. Justify your answer.
- ii). What are the harmful effects of taking artificial health supplement without consulting a physician.

Q-15. Om, Rohit and Kishore always remain in a hurry. One day, during lunch hour they all quickly gulped food and went out to play.

- (i). Om suddenly developed stomach ache while playing. What according to you might have gone wrong with him.

Q-16. Meena who is studying in Class-X gets tired very soon and her skin colour is turning pale, her haemoglobin content in the blood is also low She is really confused about this situation.

- i). Which disease is she suffering from.
- ii). What kind of diet should she take to overcome this problem.

Q-17. Sohan went to his town Agra 200 Km away from Delhi with his father in a car. On the way there was lot of traffic jam. Sohan while reaching his town felt nausea and headache. He had inhaled lots of toxic polluted gases.

- i). Which system/part of his body gets affected.
- ii). What steps could be taken to reduce air pollution.

CHAPTER-7. CONTROL AND COORDINATION

Q-18. Mayank's father never bothered to check the brand/contents of the salt he had purchased from the market. Mayank noticed that her sister had developed swollen neck. The doctor advised her to eat Iodised Salt.

- i). Name the disease from which Mayank's sister suffered.
- ii). Why the doctor has advised her to eat Iodised Salt?

Q-19. Injections are given to the cattle for the production of milk.

- (i). Do you think it is a right practice.
- (ii). What harm is this practice causing us?

Q-20. Often the road accidents victims faced really a tough time due to the shortage of blood in the hospital.

i). Give suggestion to avoid shortage of blood in the blood bank.

Q-21. A person is taking the insulin injection everyday.

(i). Name the disease he is suffering from.

(ii). How does healthy life style help this patient to control this disease?

Q-22. Most of students suffer from exam stress and anxiety during exam days.

i). Suggest three good habits which students should adopt to tackle this problem.

Q-23. Generally some of teenagers readily come under bad influences under peer group pressure.

(i). Why does teenagers readily come under this influence.

(ii). Suggest methods to overcome such problems.

Chapter-8 HOW DO ORGANISMS REPRODUCE?

Q-24. We hear and read about female foeticide, which is really is a wrong practice. In some families, be it rural or urban, females are tortured for giving birth to a girl child. They do not seem to understand the scientific reason behind the birth of a boy or a girl.

In your opinion, the approach of the society towards mother in this regard is correct or not? Explain the scientific reason.

Q-25. Mr. R. Sharma was suffering from various types of diseases presently. He went for thorough health checkups and was diagnosed as HIV+ve. Soon this news spread in his neighborhood and on account of this, he faced social isolation.

Comment upon:-

i. Do you think people's indifference towards HIV+ve people is justifiable?

What kind of approach should we have towards the persons suffering from AIDS.

ii. How can one protect oneself from this diseases?

Q-26. It is a well known fact that pregnant woman's health is a backbone of every family, society and thus nation

- i). Which tissue is responsible for providing nutrition from mother to growing embryo?
- ii). According to you, what can be the likely measures to maintain woman health during pregnancy.

Q-27. How can one justify this statement that “Like physical mental and social fitness, human beings need fitness of reproductive life” i.e. ‘Reproductive Health’.

Q-28. Arjun and Ram are students of Class-IX. Both were initially good in studies. After some time academic performance of Arjun started declining and he became irritable. This change was noticed by his class teacher the teacher, while interacting with Arjun found out that he had six siblings and whole family lived in a single room.

Mother was not able to devote much attention to him and resources were not sufficient.

- (i) After going through the situation, what are the factors, which you think, are responsible for change in behaviour and his poor performance in studies.

Chapter-7 CONTROL AND COORDINATION

Q-29. Rahul got a bike on his 18th Birthday from his parents. His father instructed him always to wear helmet while driving. He reluctantly obeys him but does not tie the straps of Helmet properly.

- (i). According to you, what danger Rahul can face in future while he is driving his bike.
- (ii). Which vital organ/organs gets protection by wearing the helmet while driving the two wheelers?

CHAPTER-10-11 LIGHT, HUMAN EYE AND COLOURFUL WORLD

Q-30. ‘Vision’ is one of the wonderful gifts given to us by God. But most of the people never take care of their eyes. Care for eyes should be taken, suggest some methods for proper eye care?

Q-31. Suddenly a news spread in the school that a student of class-IX-A has expired due to heart attack, but he has donated his beautiful eyes to one of his friend. All the members of school felt very sad for his untimely death, but on the other side they were overwhelmed on hearing the donation of his eyes to his friend, who would now be able to see this beautiful nature.

Do you think that the student who expired had done good job? Is it worth to donate vital organs?

Q-32. In a class-room, there were four or five students who were not able to read the material written on black board. The other students of class helped them to sit at the front seat, so that they can also read the material written on blackboard.

What can be the reason behind it, what will you recommend these students and what precautions you will insist them?

Q-33. On the rainy day, Ram reached his grandfather's place in village. On the way to house he saw a beautiful rainbow in this sky. In night, he saw lots of twinkling stars in the clear sky. He was very excited to see these beautiful natural phenomenon, which he was not able to see in the city, where he lived with his father.

Do you think that pollution in atmosphere affects the formation of rainbow and twinkling of stars. Do you agree with the fact that pollution free environment will strengthen such natural phenomenon in the cities as well elaborate.

Q-34. We mostly read in newspaper, that few students went for picnic, but while boating one or two drowned in river. Situation below can be the reason for this.

Situation- while boating with parents, a child saw a beautiful fish in the river or lake. He/she tried to catch it, thinking that it is very closer to him/her. But situation became worse when he/she drowned in the river/lake instead of catching it Name the phenomenon that shows the apparent position of fish, explain it.

What precautionary measures you will suggest while boating.

Q-35. Generally, we observe that the adolescence age is the age of change in physical appearance, behaviour, mental level, etc. Because of these changes, the child of this age always loves to stand in front of mirror and feel happy. But if we think little more, we will observe that the mirror reflect both image physical as well as internal feelings that is whatever we think is also reflected by mirror.

Do you agree with this, comment on it.

Chapter 12-13 ELECTRICITY, MAGNETIC EFFECTS OF ELECTRIC CURRENT

Q No. 36 Suddenly the news spread in the school that the fire had broke out in examination room. All the important papers and office documents were burnt. The reason for this mishap was short circuiting.

What is short circuiting and what precautions can be taken to avoid such tragic incidents.

Q No. 37 Mr. Sharma a property dealer, had many expensive appliances at his home like fridge 3 air conditioners, geyser etc but he forgot to put earth wire connections to these appliances. One day his younger daughter opened the fridge and suffered a severe electric shock though, she was saved.

Why it happened and how can one save himself of herself from these electric shock by these electrical appliances.

Q No. 38 We generally use a device in an electrical circuit, which is essential for safety of appliance as well as life.

What is that safety device called?

How it works and helps us to live happily?

Do you think it is necessary for every place where electricity is used.

Q No.39 One day science teacher was teaching in her class, one of her student was very sad. The teacher asked her the reason, the way she responded amaze the students in the class room. She told the teacher of the mishap which took place in her locality where four members of a family died, as they were trying to theft electricity by connecting the conducting wire with the live wire on the street.

Now do you think is this practice of electricity theft good, how does one's conscience allows it.

What advice would you like to give to improve such mind set?

Q No. 40 One day sohan went to his friend's house. He was surprised to see that most of the electrical appliances at his house were functional. For example tube light and fan in all room, two TV's, computer, light of toilet & kitchen were switched on sohan told his friend that this is not the way to use electricity.

Now the question arises whether this habit of consuming electrical energy is acceptable or not.

Will it not effect like economical condition of family as well as the nation how?

Chapter – 14 SOURCE OF ENERGY

Q No. 41 In a school, there are seventy teachers most of them come by their personal vehicle. Where as there are many teachers who come from the same place.

Is this practice of commuting to school will help nature. Justify it?

Q No. 42 During the natural disaster (Tsunami) at Japan, the nuclear reactors were damaged, due to which hazardous radiation affected the large area.

i. What will be the reason for this damage?

- ii. How it affected the people and environment?
- iii. Do you think that nuclear energy is good for nature?

Q No. 43 In a village people burn wood and cow dung as a fuel for basic necessity. In other nearby village, they have bio gas plant in which bio waste is used to prepare bio gas.

If we compare the situation of both village, which practice you will prefer the best and why?

Q No. 44 You would have seen at the roofs of the minister's house, hospital, hotels etc, solar panel for electricity and solar heater for hot water are placed. Now a days most of the people are preferring these methods.

Why they are preferring these types of method?

What kind of source of energy is used here?

How it will effect our environment.

Q No. 45 Conserving energy has become the need of the society & nature, be it in the transport house hold or industries. Energy conservation has been recognized as a national issue for long time.

As a responsible citizen of India, what steps would you take to conserve energy.

Chapter – 15 OUR ENVIRONMENT

Q No. 46 It is often advised to stop our vehicles engine at red light and also to drive car / vehicles at constant speed.

Based on the above statement, answer the following question.

1. Which type of fuel is used in vehicles? Is it renewable or non renewable.
2. How can you contribute towards saving these fuels at your level?

Q No. 47 Number of vultures is decreasing remarkably. Now a days which is a matter of concern.

1. Vultures belong to which category of animal.
2. What is their role in nature to maintain ecological balance.

Q No. 48 Newspaper reports about the alarming increase in pesticides level in packed food items Some of states have even banned these food items.

1. What are the sources of these pesticides in these food items.
2. Name the biological phenomenon associated with accumulation of pesticide in the food chain.

Q No. 49 Ozone depletion / Ozone hole is a cause of concern now a days.

1. What are the causes of ozone depletion.
2. As students what steps will you advise to reduce ozone depletion.

Q No. 50 Acid rain is causing damage to monuments / Buildings etc. and also harm the flora and fauna.

1. What is the cause of acid rain.
2. What essential changes in our daily life can be done to prevent acid rain / damage caused by acid rain.

Q No. 51 Plastic production is increasing day by day in spite of the fact that plastic is harmful for the environment.

Based on the above statement answer the following.

1. What are the harmful effects of plastic usage?
2. In our day to day situation what are the alternatives that we can use instead of plastics.

Chapter 16 Management of Natural Resources

Q No. 52 Chipko movement was started in 1970s in a small village of Garhwal high up in Himalayas villagers stood against greedy contractors.

Women folk hugged the trees. The chipko – movement spread slowly to all nearby areas under the leadership of Shri Sunder Lal Bahuguna.

1. Do you feel inspired by this movement which prevented felling of trees.
2. Do you think that local people are real stake holders?
3. Which old belief has been challenged by chipko movement?

Q No. 53 There are certain N.G.O's which motivate the general public to donate clothes books toys, stationary items, utensils etc to them. These N.G.O.'s further segregate and distribute these items to the needy.

→ In your opinion what objective / objectives are fulfilled by this initiative?

Q No. 54 Reena is a student of class X of a Govt. School she is a member of Eco club' of her school.

What suggestions would you like to give Reena to improve the environment in her school?

Q No. 55 Human population was less in early days. Men used to live in harmony with nature however, in present time tremendous growth of population and science & technology is resulting in fast depletion of natural resources.

1. Don't you think, it is high time that humans should realize that their own survival is in danger if they do not follow the path of sustainable development.
2. What are the ill effects of unsustainable development?

Q No. 56 My sister is in habit of keeping the tap open while brushing her teeth. She loves to bathe under shower. My neighbour uses hosepipe attached to drinking water supply pipe for washing his scooter & car.

According to me their way of handling the most precious source water is absolutely wrong.

1. Do you agree with me or not?
2. What changes in the above situation can be done to conserve water.

Q No. 57 Govt. of India has recently instituted an Amrita Devi Bishnoi National Award for wildlife conservation in the memory of Amrita Devi Bishnoi. Who sacrificed her life along with 363 others for the protection of khejri trees near Jodhpur in Rajasthan. Based on the above statement answer the following question.

1. How trees are important to us?
2. How can you protect trees?
3. What is the significance of Van Mahotsava?

Q No. 58 Sneha and Sugandha are friends. Sneha belongs to a rich family and she believes in throwing and discarding the things after use while Sugandha does not like wastage and she reused the things. Based on above information answer the following questions :-

1. How reusing the things avoid wastage.
2. List any two examples where you can reuse the things.
3. What change can you make in your habits to become more Eco-friendly.

Q No. 59 Business is not only about accumulating wealth and glory. It is not about growth for the sake of size. It is about being a good corporate citizen and the admirer of the environment. How can you say that being a good citizen is more important than becoming a successful businessman? How can you become a good and responsible citizen?

Q No. 60 Water is one of our most precious commodities and no life can survive without it. It has been predicted that water scarcity will become the subject of "Wars" in the near future.

1. Write any two ways in which water is getting polluted?
2. Write any two measures to stop water pollution at your level?

Q No. 61 Tourism sector is a major source of income for Govt. To obtain more income the hills are being converted into tourist places where rest houses and resorts are made and millions of tourists visit those hills. They throw plastic covers, bottles and other litter there and destroy them. As a responsible citizen of the country what two precautions you would take while visiting tourist place.

Q No. 62 Human actions are leading to environmental problems. But we need not feel powerful or helpless as there are many things we can do to make a difference.

Keeping in view the above statement answer the following questions:-

1. What are the three R's which can make a difference in our environment.
2. How can you contribute at your own level to save the environment.

VALUE BASED QUESTIONS

CLASS-X

SCIENCE-SA-II

2012-2013

Chapter-1 CHEMICAL REACTION AND EQUATIONS

- Ans 1.** (i). Junk food makes the person obese.
(ii). He/She may suffer from loss of appetite.
(iii). He/She may develop the problems related to his/her physical or mental growth
(iv). It leads to wastage of money.

Associated Value : The learner will be able to understand the benefits of healthy food habits.

Chapter-2 ACID, BASES AND SALTS

Ans 2. We should brush our teeth twice a day as bacteria present in the mouth produce acids by degradation of sugar and food particles remaining in the mouth after eating. The best way to prevent this is to clean the mouth using toothpaste which are generally basic. These can neutralise the excess acid and prevent tooth decay.

Associated Value : The learner will be motivated to keep her teeth properly cleaned.

Ans 3. Plants require a specific pH range for their healthy growth by using a large no. of pesticides and fertilizers pH of the soil changes which make it more acidic or basic. So in the long run the soil becomes infertile. This leads to soil erosion causing a damage to the environment also. So use of these pesticides and fertilizers should be restricted.

Associated Value : The learner understands the need to wash her vegetables and fruits properly before eating them.

Chapter -3 METALS AND NONMETALS

- Ans 4.** i We should always purchase the Gold jewellery from a branded shop with proper receipt and Hall Mark certificate.
ii. Govt. insists on purchasing hall marked jewellery as it contains the gold and its alloyed metal (ie. Copper or silver) in a fixed ratio.

Associated Value : They will be more careful and educated and thus can't be befooled easily while shopping jewellery and other products.

Ans 5. The rusting of iron can be prevented by painting, oiling greasing, galvanising, chrome plating, anodising or making alloys.

Associated Value : The learner will be able to escape from the economic loss of metallic objects by keeping them corrosion resistant.

Ans 6. Equipments contained Mercury should be handled carefully.

If broken or discarded their disposal should be done carefully.

Associated Value : The learners will handle & dispose such poisonous items more carefully.

Chaper-4. CARBON AND ITS COMPOUNDS

Ans 7. a).The inlets for air in stove get blocked which leads to yellow flame.

b). This problem is harmful for our environment as incomplete combustion results in the formation of oxides which are major pollutants of our environment.

c). For preventing this situation gas or stove burners should be cleaned time to time.

Associated Value : Eco-friendly habits will be inculcated among the learners.

Ans 8. By sensitizing the people about the harmful effects of liquor consumption.

By making poster, banners and writing articles on this issue.

By not getting attracted towards this habit and to stop my friends also to keep control on themselves to condemn alcoholism.

Associated Value : The learners understand the bad effects of Alcoholism and also start try to discourage this practice in the society.

Ans 9. Vegetable oils contain unsaturated fatty acids which are healthy and decrease the cholesterol level in our blood. That is why we should use vegetable oils for cooking. Cooking oil should be selected in such a manner that it should contain low cholesterol.

Associated Value : The learners will be able to adopt healthy food habits once they understand that animal fats produce more cholesterol than vegetable oil.

Chapter – 5 PERIODIC CLASSIFICATION OF ELEMENTS

Ans 11. Organisation makes our life simple, easy and systematic.

As classification and organization help us in our daily life in the same way classification of elements has make the study of elements easier and simple.

We can know about the properties of elements because of this classification.

Associated Value : The learner will be motivated to adopt well disciplined and organized life.

Ans 10

(i) By sensitizing people about adulteration.

(ii) Small amount of pebbles/impurities are mixed in pulses.

(iii) When we wash the pulses the impurities float on the water.

Associated Value : The learner will become more vigilant towards Food adulteration and they start try to check this menace.

Chapter-6 LIFE PROCESSES

Ans 12.

- (i). Prefer and enjoy eating fruits and vegetables.
- (ii). Choose a diet that provide enough calcium and iron and proteins to meet their growing body's requirements.
- iii. Add fresh vegetables to pizzas, burger, if you cant avoid eating them.

Associated Value : The learners will go for healthy food habit once they understand the harms of taking Fast and junkfood.

Ans 13.

- (i). A good, regular exercise keep diabetes under check.
- (ii). Exercise is also crucial to those who are obese or overweight.
- (iii). Weight traning exercises increases uptake of calcium In the bones and help in preventing osteoporosis (Bone disease).
- iv. Regular exercise also reduces bad cholesterol in our body and helps in improving the function of the heart.

Associated Value : The learners will be motivated to take up sports activities more regularly to keep them healthy.

Ans-14. (i). No the steps taken by Rahul was not right.

(ii). It can lead to addiction and can affect the health adversely.

Associated Value : The learners will be discouraged to get influenced from other of taking any food supplements that harm their health

Ans 15.Om developed Stomach ache as he had not chewed his food properly. Chewing food properly helps in proper breakdown of food and mixing it with saliva

. Large food pieces if enter the stomach might cause damage.

Associated Value : The learners will start chewing their food properly for healthy digestion.

Ans 16. i. Meena is suffering from Anaemia.

ii. She should take fruits and vegetables (Spinach) which is rich in iron. Iron is an essential component of hemoglobin and is required for its proper functioning.

Associated Value : The learners will be motivated to take the balanced diet especially rich with protein & Iron to keep their Haemoglobin level in the required range.

Ans 17.(i). Respiratory system/lungs will get affected.

- (ii).
- a. Factories should treat harmful waste & filter it before releasing it in the environment.
 - b. Less polluting fuels like CNG should be used in vehicles.
 - c. Regular pollution check and proper service and maintenance should be done for private vehicles.

Associated Value : The learners will start taking up more eco-friendly transit system like metro to travel besides advocating car pool among others.

CHAPTER-7. CONTROL AND COORDINATION

Ans 18.

1. Goitre/Thyroid related disease.
2. Iodine present in iodised salt is needed to produce thyroxin hormone.

Associated Value : The learners will only take up Iodised salt in their meal in order to check Iodine deficiency disease.

Ans 19 (i) No.

(ii) Intake of such contaminated milk may cause various health disorders.

Associated Value : The learners will become more vigilant while taking milk or milk products and would prefer to take them from registered outlet like Mother Dairy, DMS etc.

Ans 20.

1. Spread awareness that blood donation is a healthy social habit.
2. Sensitizing and encouraging the people with the help of Nukkad Natak, Media etc. to participate in blood donation camp.

Associated Value : It will motivate the learner in believing that the blood donation is a social value and duty of human being.

Ans 21.

- (i) Diabetes (Type-II)
- (ii) Regular exercise, taking Balanced diet avoid sweet food item, cola etc.

Associated Value : The learner will understand that Diabetes is a life style disease and will be encouraged to adopt a life style with balanced diet and regular exercise to keep such diseases away from them.

Ans 22. Good habits to beat the exam stress:

- (i) Regular study hours.
- (ii) Taking balanced /light diet.
- (iii) Exercise /walk with good speed in the morning /evening.
- (iv) Regular breaks.

Associated Value : The learners will be able to cope exam stress in a more better way by following disciplined & planned studies.

Ans 23. Adolescence brings about the hormonal secretion among teenagers. This leads to some physical and emotional changes among them which are difficult to bear by them.

- 2 (i). Proper counseling of teenagers should be arranged from the counsellor.
- (ii). Healthy communication with parents.
- (iii). Teenagers should be properly motivated to set realistic goals.

Associated Value : The learner will be able to handle various challenges of adolescent stages in a more better way.

Chapter-8 HOW DO ORGANISMS REPRODUCE?

Ans 24. Approach of society is baseless. Sex of child is determined by type of chromosome present in sperm (X or Y) that fuses with ovum at time of fertilization.

Associated Value : The learner will be able to improve their mindsets that help them to discontinue various social malaise viz gender inequality, female foeticide etc.

Ans 25. 1. Absolutely not.
Human approach/behavior

One should be aware about the mode of transmission of disease, danger of sharing needles etc.

Associated Value : The learners will understand that only a generous and improved mindset of society can help the people to fight HIV/AIDS related problems.

Ans 26 (i) Placenta.

- (i) Would be mother should eat healthy balanced nutritious diet, should be stress free.
- (ii) She should not take any medicine without proper doctor's advice.

Associated Value : The learner will appreciate the idea that it is very important for all of us to help in maintaining good health of the pregnant lady.

Ans 27 This will prevent himself from contracting various STD's as well as spreading of diseases.

Associated Value : The learner will be motivated to maintain a good reproductive health as well.

Ans 28.Big families can be one of the reasons/advantages of having short family.

Associated Value : The learner will understand the fact that only small family gets good health and education unlike that of a large family.

Chapter-7 CONTROL AND COORDINATION

Ans. 29. He may get head injury that may even prove fatal to him.

2. Brain, Eye.

Associated Value : The learners will be encouraged to obey traffic rules while traveling on the roads.

CHAPTER-10-11 LIGHT, HUMAN EYE AND COLOURFUL WORLD

Ans 30 Don't Rub eyes.

Wash them properly and softly

Any other suggestions.

Associated Value : The learners will follow the tips to maintain the good eye care.

Ans 31. Yes,, Independent view of student.

Associated Value : The learners will be motivated/inspire to appreciate the idea of organ donation in their life.

Ans 32. Myopia (Reason)

Get the proper check up for the eyes.

Should wear spectacles as recommended by doctor.

Associated Value : The learners will be able to handle eye sight disorder if any in their life.

Ans 33. Yes

Yes

Independent view of a student.

Associated Value : The learners will understand the fact that the urban people will have to keep their city clean & pollution free if they wish to experience some beautiful natural events viz twinkling of star, a rainbow etc.

Ans 34. Refraction

Explanation of Refraction.

Never try to catch or hold anything in deep water, As it appears nearer than its actual position.

Associated Value : The learners will be encouraged to obey rules strictly to avoid life risk during recreational activities like boating etc.

Ans 35. Yes/Self introspection is essential.

Associated Value : The learners will be able to tackle the adolescent challenges developed due to enormous physical and emotional changes in their life during this stage.

Chapter 12-13 ELECTRICITY, MAGNETIC EFFECTS OF ELECTRIC CURRENT

Ans. 36 Definition of short circuiting

Use fuse, connecting wire should be of good quality, wire should be properly insulated externally.

Associated Value : The learners will become more educated to handle emergency situation like electric fire more carefully.

ANS 37. Earth wire is not used

Explain function of earth wire

Its colours, need of connecting metallic appliances with earth wire.

Associated Value : The learners will be more careful and vigilant while handling electric gadgets to avoid electric shocks.

ANS 38 Fuse

Yes, function & application of FUSE.

Associated Value : The learners will be able to understand and appreciate the importance of electric fuse in domestic circuit.

ANS 39 : No, electricity theft is not good.

Proper connection, billing, safety measure can save both property and life which is more precious.

Associated Value : The learners will be able to appreciate the role of being a responsible citizen and not to involve in any unlawful and risky events like electric theft etc.

ANS 40 No Yes it will affect the economical condition of family as well as the nation

Because both renewable and mostly non-renewable sources of energy is used to generate large amount of electricity. We should conserve the energy.

Associated Value : The learners will be able to encouraged to adopt eco-friendly attitude which also a need of hour.

Chapter – 14 SOURCE OF ENERGY

ANS 41 No, excessive use of fossil fuel, pollute the environment, and fossil fuels are non renewable source of energy.

Can use car pool.

Associated Value : The learners will appreciate and adopt the idea of traveling in MRTs (Metro) and favour car pool so that they can also play a role in prompting eco-friendly life style.

ANS 42 i. Heat evolved during nuclear fission

- ii. a. Damage to property & life
- b. Genetical Disorder
- c. Infertile soil
- iii. Pros & cons of nuclear energy.

Associated Value : The learners will be more educated and careful towards safety measurers against nuclear hazards.

ANS 43 Second village

Qualities of Bio gas fuel.

Associated Value : The learners will appreciate the practice of adopting renewable sources of energy like CNG, Biofuel, solar energy by the people.

ANS 44 Renewable source of energy

Saving of electrical energy, money

Non-polluting

Associated Value : Same as in 43.

ANS 45 Use of renewable sources of energy

Population control

Planting trees (afforestation)

Any other point according to the student.

Associated Value : The learners will be encouraged to play their role as a responsible citizen in the conservation of energy resources.

Chapter – 15 OUR ENVIRONMENT

ANS 46 Fossil fuel – non renewable

- Traveling in Metro (MRTS) / Public transport
- Opting for CNG as a motor fuel instead of petrol & diesel.

Associated Value : The learners will adopt all these fuel saving techniques in their life.

ANS 47 i. Scavenger

ii. Help in recycling in nature by eating dead animals.

Associated Value : The learners will be able to understand and participate in maintaining ecological Balance by not harming other creatures.

ANS 48 1. Chemicals (Pesticides, Fertilizers) used in agricultural practices.

2. Biological magnification.

Associated Value : The learners will be able to apply rational approach while using such pesticides & will be more careful towards using packaged food.

ANS 49 1. Chlorofluoro carbon (CFCs) released into atmosphere disintegrate the ozone molecule.

2. Stop using devices that release CFCs.

Associated Value : The learners will be more educated and will be more vigilant & judicious towards using equipments /chemical that produces CFCs in order to protect ozone layer.

ANS 50 1. Oxides of Nitrogen & sulphur released from vehicular & industrial emissions on mixing with rain water produces acid rain.

2. Traveling in metro (MRTS) instead of fossil fuel driven vehicles.

Associated Value : The learners will adopt Eco-friendly lifestyle so that lesser amount of (No)x and (So)x released into atmosphere which are the main contribution factor causing Acid Rain.

ANS 51 i Environmental pollution

Burning plastics can cause pollution

Plastic cause harm to the cattle / animals if enter inside their alimentary canal.

ii. Paper bags / jute bags can be used instead of plastic bag.

Any other relevant view of the student

Associated Value : The learners will be discouraged to use plastics as a source of packaging, storing as it is non biodegradable.

Chapter 16 Management of Natural Resources

ANS 52 1. Yes

2. Yes

3 Chipko movement has challenged the old belief that forests are meant only for timber.

Gift of trees to us is soil, water, oxygen.

Associated Value : The learners will be motivated for Tree plantation drive and will be discouraged to be a part in reckless cutting of trees.

ANS 53 1. Good initiative approach of reuse

2. Sensitizing general public towards community

Associated Value : The learners will become more socially responsible citizen by contributing their share towards much generous acts of society towards their under privileged fellows.

ANS 54 1. Growing plants and trees in the open area in the school.

2 Arrangement for water harvesting

3. Reporting any kind of water leakage in the school.

Associated Value : The learners will be motivated to act like a eco-club members and participate actively in its all environment saving activities.

ANS 55 1. Yes

2. Global warming, degradation of environment health hazards.

Associated Value : The learners will appreciate the fact that rational use of natural resources is their responsibilities towards saving has nature for future generations as well.

ANS 56 1. Agreed

2. One should minimize use of water, should not keep the taps open when not in use, should use bucket of water for cleaning purpose for taking bath, as these practices consume less water.

Associated Value : The learners will start using water resources more judiciously to avoid its waste.

ANS 57 1 Trees are the basis of human and animal life; no life can exist without them. We are directly or indirectly dependent on the trees for all our requirements.

2. We can protect trees by taking care of these. By reducing our needs and by not wasting the paper.
3. mahotsava is the festival celebrated to enhance the plantation of trees.

Associated Value : Same as in 52.

ANS 58 1. Reusing means using the things again and again thus without wastage of any energy we can use the things.

2. Old envelop can be reused. Old news papers can be used to make cards, pots, decorative pieces etc.

3. By adopting the principles of three 'R's we can make our selves Eco-Friendly.

Associated Value : The learners will be motivated to adopt 3 R's (Reduce, Reuse, Recycle) in their life to save her environment.

ANS 59 Being a good citizen is more important than becoming a successful business man because if we are not good citizen our action will take our country towards destruction.

Associated Value : The learners will appreciate the fact that one should not involve in any business gain activity which may also harm then environment.

ANS 60 1. By industrial waste.

By human activities.

By not throwing waste materials and garbage into water.

2. By sensitizing people about harmful effects of water pollution.
or any other methods.

Associated Value : The learners will become more responsible by discouraging any activity in their life that may cause water pollution.

ANS 61 While visiting to tourist places we should not throw garbage and waste materials.

1. We should not try to temper with the natural beauty of that place.

Associated Value : The learners will appreciate the very idea of keeping the tourist spot clean whenever they visit their as these are our natural heritage.

ANS 62 1. Reduce reuse and recycle

2. By becoming Eco-friendly

By planting trees, by not throwing garbage etc.

Associated Value : Same as in 58.