

MT EDUCARE LTD.

ICSE X

SUBJECT : **GEOGRAPHY**

Waste Management STEP UP ANSWER SHEET

A.1.

- (c) (i) The objectives of the treatment of gaseous waste is to drain the harmful particles and allow clean air to escape through chimneys.
(ii) Two diseases are lung-cancer and asthma.
- (d) Cause of the following are :
- (i) The Bhopal tragedy-leakage of methyl isocyanate.
(ii) The Minamata disease-by mercury poisoning.
(iii) The Chernobyl disaster-leakage of nuclear radiations.

[2013]

A.2.

- (c) (i) Waste accumulation pollutes air, water and soil.
(ii) It degenerates the landscape, chokes the drainage system.
(iii) It creates health problems like cholera, dysentery, typhoid, etc., due to growth of bacteria in the water.
- (d) Acid rain is the deposition of the acidic components in rain, snow, fog, dew or dry particles. The acidity can increase through the introduction of Sulphur dioxide and Nitrogen oxide mostly emitted by industries and automobiles into the atmosphere. Sulphur dioxide and Nitrogen oxide combine with water vapour and oxygen to form dilute sulphuric and nitric acid. Winds may spread these acidic solutions across the atmosphere when these acid rains reach the Earth. It flows across the surface run off and enters the water system.

Two effects of acid rain are : -

- (i) It is largely responsible for scarring buildings, monuments, corroding metals and damaging vegetation.
(ii) It makes water in the lakes and wet lands acidic and make them toxic for aquatic life.

[2014]

A.3.

- (c) (i) Segregation of wastes according to methods of treatment is necessary for proper waste management. Thus wastes are separately collected in different bins for biodegradable and non biodegradable products.
(ii) Radioactive elements are considered harmful because exposure to these radioactive elements can cause serious health problems. Since radioactive elements remain active for a long time, therefore it can enter human body through food, fish and water which are already affected. These radioactive accumulations further damage tissues, blood cells and cause cancer.

- (iii) Generation of wastes can be reduced by reducing recycling and reusing of wastes known as 3R's.
- (d) (i) Biodegradable wastes are easily broken down by natural processes of decomposition. e.g. leaves, plant remains.
- (ii) Gaseous waste-carbon monoxide, Methane, CO₂, Sulphur dioxide etc.

[2015]

A.4.

- (a) (i) Two sources of waste are bio-degradable waste and non-biodegradable waste.
Bio-degradable waste are produced by plants, animals, kitchen, paper, green waste, humans, fertilizers and sewage waste which can be broken down through microbial activity of fungi and bacteria.
- (b) (i) **Composting** : Composting is biodegradable organic waste like tree leaves, vegetable peel and discarded food items (converted into useful manure).
- (ii) **Incineration** : Incineration involves burning of waste at a very high temperature and are fed into an incineration chamber and combustion destroys the organic compound.
- (iii) **Segregation** : The waste from residential areas, hotels restaurants and office complexes and commercial areas must be segregated at source into different categories of bio-degradable, non-bio-degradable, bio-medical, toxic and non-toxic waste.

[2016]

A.5.

- (a) (i) **Sewage** : The liquid and solid waste from the municipality, pollutants from the industries like arsenic, lead, mercury, fluorides flow through the water channels and finally join larger water bodies. If not treated causes serious health problem.
- (ii) **Eutrophication** : It is a process of depletion of oxygen from water bodies occurring either naturally or due to human activities.
- (iii) **Recycling** : It is a process in which the waste is converted into raw material that is usable in other useful manufacturing process. This helps to reduce the waste generation by reversing or recycling it.
- (b)
 - Methane is released by industries using coal gas and coal mining.
 - Methane is released from the land-fills as large amount of waste is deposited on or under the ground.
 - Methane is emitted by natural sources such as wet lands, as well as human activities such as leakage from natural gas systems and the raising of livestock.
 - Rotting vegetation produces methane.

[2017]

