

card and find the reason for its poor sales. As the Marketing Manager you have to conduct a survey to know customers' views on the new product, the reason for its poor sales and give your recommendations to improve the sales. (16 Marks)

14. Write an essay of not more than 300 words on any one of the topics given below:
(a) You are one of the finalists in a mission to go to a new planet full of intelligent alien life. Create an argument as to why you think you would be a top candidate to go on this expedition. Make sure to include both your strengths and your weaknesses. (16 Marks)

OR

- (b) Does mankind depend on computers and technology too much? - Do you agree or disagree? Justify your views. (16 Marks)

15. Rearrange any one set of the jumbled sentences given below: (16 Marks)

- (a)
- (1) First, it is noted for the Wheaton River, which is very wide and beautiful.
 - (2) These three landmarks are truly amazing and make my hometown a famous place.
 - (3) Second, on the other side of the town is Wheaton Hill, which is unusual because it is very steep.
 - (4) In autumn the leaves of these trees fall and cover the riverbanks like golden now
 - (5) The third amazing feature is the Big Old Tree, which stands two hundred feet tall and is probably about six hundred years old.
 - (6) My hometown is famous for several amazing natural features.
 - (7) Even though it is steep, climbing this hill is not dangerous, because there are some firm rocks along the sides that can be used as stairs.
 - (8) On either side of this river, which is 175 feet wide, are many willow trees which have long branches that can move gracefully in the wind.

OR

- (b)
- (1) As another example, the Gemini project was intended to find out whether two people could work in the weightless environment of space.
 - (2) Finally, the Apollo project, with three astronauts, had the goal of testing spacecraft and skills so that people could actually fly to the Moon and land on it.
 - (3) For example, the Mercury project was designed to test whether or not human beings could survive and function in outer space.
 - (4) That is, they floated outside their spacecraft in a spacesuit, connected to it by a tether.
 - (5) Other goals included performing scientific experiments on the lunar surface and collecting rocks for study on Earth.
 - (6) One way of doing this was by having Gemini astronauts take "spacewalks."
 - (7) Each of the U.S. manned space exploration projects had specific major goals.
 - (8) In addition, the Mercury project tested rockets with the new Mercury space capsule, which could hold one person.



09/11/15

9. Fill in the blanks with suitable phrasal verbs in appropriate forms. (4 × ½ = 2)
(look into, take up, break down, turn up, look after, do without)

Email Message from a boss to his secretary:

The service lift in our office has _____(1)_____ (stopped working) again. Could you please get the service engineer to _____(2)_____ (investigate) what has gone wrong and fix it as soon as possible? This is urgent, because we really cannot _____(3)_____ (manage) it. We are having to move everything upstairs using staircase which is really difficult. This is _____(4)_____ (occupying) a lot of time which can be used for something better.

10. Combine the following sentences with the given connectives. (4 × ½ = 2)
- Ram is snobbish. People like him. (yet)
 - He failed. He won't give up his goals. (even though)
 - She fell asleep. She was watching the film. (while)
 - The first test was easy. This one is extremely difficult. (whereas)

PART B (5 × 16 = 80)

11. Read the following passage and answer the questions given below: (16 Marks)

(1) Medical waste has been a growing concern because of recent incidents of public exposure to discarded blood vials, needles (sharps), empty prescription bottles, and syringes. Medical waste can typically include general refuse, human blood and blood products, cultures and stocks of infectious agents, laboratory animal carcasses, contaminated bedding material, and pathological wastes.

(2) Wastes are generally collected by gravity chutes, carts, or pneumatic tubes, each of which has its own advantages and disadvantages. Chutes are limited to vertical transport, and there is some risk of exhausting contaminants into hallways if a door is left open during use. Another disadvantage of gravity chutes is that the waste container may get jammed while dropping or it may be broken upon hitting the bottom. Carts are primarily for horizontal transport of bagged or containerized wastes. The main risk here is that bags may be broken or torn during transport, potentially exposing the worker to the wastes. Using automated carts can reduce the potential for exposure. Pneumatic tubes offer the best performance for waste transport in a large facility. Advantages include high-speed movement, movement in any direction, and minimal intermediate storage of untreated wastes. However, some objects cannot be conveyed pneumatically.

(3) Off-site disposal of regulated medical wastes remains a viable option for smaller hospitals (those with less than 150 beds). Some preliminary on-site processing, such as compaction or hydropulping, may be necessary prior to sending the waste off site. Compaction reduces the total volume of solid wastes, often reducing transportation and disposal costs, but it does not change the hazardous characteristics of the waste.

Compaction may not be economical if transportation and disposal costs are based on weight rather than volume.

(4) Hydropulping involves grinding the waste in the presence of an oxidizing fluid, such as hypochlorite solution. The liquid is separated from the pulp and discharged directly into the sewer unless local limits require additional pretreatment prior to discharge. The pulp can often be disposed of at a landfill. One advantage is that waste can be rendered innocuous and reduced in size within the same system. Disadvantages are the added operating burden, difficulty of controlling fugitive emissions, and the difficulty of conducting microbiological tests to determine whether all organic matters and infectious organisms have been destroyed from the waste.

(5) On-site disposal is a feasible alternative for hospitals generating two tons or more per day of total solid waste. Common treatment techniques include steam sterilization and incineration. Although other options are available, incineration is currently the preferred method for on-site treatment of hospital waste.

(6) Steam sterilization is limited in the types of medical waste it can treat, but is appropriate for laboratory cultures and/or substances contaminated with infectious organisms. The waste is subjected to steam in a sealed, pressurized chamber. The liquid that may form is drained off to the sewer or sent for processing. The unit is then reopened after a vapor release to the atmosphere, and the solid waste is removed for further processing or disposal. One advantage of steam sterilization is that it has been used for many years in hospitals to sterilize instruments and containers and to treat small quantities of waste. However, since sterilization does not change the appearance of the waste, there could be a problem in gaining acceptance of the waste for landfilling.

(7) A properly designed, maintained, and operated incinerator achieves a relatively high level of organism destruction. Incineration reduces the weight and volume of the waste as much as 95% and is especially appropriate for pathological wastes and sharps. The most common incineration system for medical waste is the controlled-air type. The principal advantage of this type of incinerator is low particulate emissions. Rotary-kiln and grate-type units have been used, but use of grate-type units has been discontinued because of high air emissions. The rotary kiln also puts out high emissions, and the costs have been prohibitive for smaller units.

A. Choose the right option for the following questions based on the passage: (6 × 1 = 6)

- (1) One disadvantage of the compaction method of waste disposal is that it
- cannot reduce production costs.
 - reduces the volume of solid waste material.
 - does not allow hospitals to confirm that organic matter has been eliminated.
 - does not reduce the weight of solid waste material.
- (2) For hospitals that dispose of waste on their own premises, the optimum treatment method is
- incineration
 - compaction
 - sterilization
 - hydropulping

- (3) According to the passage, which of the following could be safely disposed of in a landfill but might not be accepted by landfill facilities?
 (a) hydropulped material (b) sterilized waste
 (c) incinerated waste (d) laboratory cultures
- (4) The two processes mentioned in the passage that involve the formation of liquid are
 (a) compaction and hydropulping (b) incineration and compaction
 (c) hydropulping and sterilization (d) sterilization and incineration
- (5) Hospitals can minimize employee contact with dangerous waste by switching the method of transportation from
 (a) a manual cart to a gravity chute (b) an automated cart to a hydropulping machine
 (c) a gravity chute to a manual cart (d) a manual cart to an automated cart
- (6) Budgetary constraints have precluded some small hospitals from purchasing
 (a) pneumatic tubes (b) rotary kilns
 (c) sterilization equipment (d) controlled-air kilns

B. State whether the following statements are true or false: (5 × 1 = 5)

- (1) Compaction is one of the effective methods for treating waste caused by infectious matter.
 (2) Compacting is the process that transforms waste from hazardous to harmless and diminishes waste volume.
 (3) Offsite disposal of medical waste is the best option for a hospital with 300 rooms for patients.
 (4) In steam sterilization, the waste is subjected to steam in a sealed pressurized chamber.
 (5) Controlled air-type incinerator is preferred over grate type units because of its low particulate emissions.

C. Choose the right meaning for the given words based on the context. (5 × 1 = 5)

- (1) The word **exhausting**, as it is used in the second paragraph of the passage, means
 (a) debilitating (b) disregarding (c) detonating (d) discharging
- (2) The phrase **fugitive emissions** in the fourth paragraph most nearly means
 (a) contaminants that are extremely toxic (b) contaminants that are illegally discharged
 (c) contaminants that escape the disposal process (d) contaminants that come from micro-biological testing
- (3) The phrase **rendered innocuous** in the fourth paragraph means
 (a) to throw it somewhere else (b) to make it unconscious
 (c) to make it completely harmless (d) to recycle it
- (4) The phrase **feasible alternative** given in paragraph 5 means
 (a) possible option (b) potential ability
 (c) possible reason (d) potential difference
- (5) The word **prohibitive for smaller units** in the last paragraph means
 (a) dangerous for smaller units (b) too expensive for smaller units
 (c) stopped by smaller units (d) stopped due to smaller units

12. (a) During the summer vacation you would like to do an internship in your favourite company. Write a letter of application to the HR Manager requesting permission to do internship in their company and enclose your cv for their reference. (16 Marks)

OR

(b) Send a job application along with your resume for the advertisement given below: (16 Marks)

ENGINEERS WANTED!!!!

We are an Engineering company executing different projects of Mechanical and Civil Engineering with Government, Multinational and Private Organizations. We seek the following Technical Staff for our Head Office situated at New Delhi:

- Civil Engineer: B.E (Civil) with 5 years in Project Planning
- Mechanical Engineer: B.E (Mechanical) / B.E Production Engg with minimum 2 years of Experience in any production unit
- Structural Design Engineer: B.E (Civil) with experience in steel structural designing

All those who interested to undertake challenging jobs can be provided excellent and attractive package. Send your CVs to:

Mr. Sikkandar Sharma
 Manager HR
 Suzlon Mech Industry Limited
 New Delhi - 110001

13. (a) You are the Production Manager of a Chemical Plant located at Sholinganallur, near Chennai. On 10th May 2013 there was an accident in your factory. Two workers were carrying out modification work to the pipelines on top of two chemical tanks. One was to cut and fit the pipe and the other was to weld the pipe. An explosion occurred during this modification work. One worker was thrown to the ground and died on the spot. The other worker was badly injured. A few more workers working nearby were also hurt by the explosion. Your Managing Director from New Delhi asks you to conduct an investigation about this accident and submit a report.: (16 Marks).

OR

(b) You are the marketing manager of a popular networking company. Your company has recently launched a new data card for Internet connection that is to be used in the residential area. In spite of many useful features and low pricing, the sale of new data card is not very effective. Your General Manager asks the marketing department to conduct a survey to know customers' views on the new product – Internet data