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# Daffodil International University

**Faculty of Science & Information Technology**
**Department of Computer Science and Engineering**
**Mid-Semester Examination, Summer-2025**
**Course Code: ENG 102 Course Title: Writing and Comprehension**
**Level: 1 Term: 2 Batch: 68**

**Exam Duration: 1.5 Hours** **Marks: 25**

## Answer ALL Questions

*[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]*

| 1. | | **Reading** | **1x 15= 15 Marks** | **CO1** |
|---|---|---|---|---|
| | | **Reading Passage 1: Read the following passage and answer the following questions** | | |
| | | **Alfred Nobel: The man behind the Nobel Prize**<br>A Since 1901, the Nobel Prize has been honoring men and women from all corners of the globe for outstanding achievements in physics, chemistry, medicine, literature, and for work in peace. The foundations for the prize were laid in 1895 when Alfred Nobel wrote his last will, leaving much of his wealth to the establishment of the Nobel Prize.<br><br>B Alfred Nobel was born in Stockholm on October 21, 1833. His father Immanuel Nobel was an engineer and inventor who built bridges and buildings in Stockholm. In connection with his construction work, Immanuel Nobel also experimented with different techniques for blasting rocks. Successful in his industrial and business ventures, Immanuel Nobel was able, in 1842, to bring his family to St. Petersburg. There, his sons were given a first-class education by private teachers. The training included natural sciences, languages and literature. By the age of 17, Alfred Nobel was fluent in Swedish, Russian, French, English and German. His primary interests were in English literature and poetry as well as in chemistry and physics. Alfred's father, who wanted his sons to join his enterprise as engineers, disliked Alfred's interest in poetry and found his son rather introverted.<br><br>C In order to widen Alfred's horizons, his father sent him abroad for further training in chemical engineering. During a two year period, Alfred Nobel visited Sweden, Germany, France and the United States. In Paris, the city he came to like best, he worked in the private laboratory of Professor T. J. Pelouze, a famous chemist. There he met the young Italian chemist Ascanio Sobrero who, three years earlier, had invented nitroglycerine, a highly explosive liquid. But it was considered too dangerous to be of any practical use. Although its explosive power greatly exceeded that of gunpowder, the liquid would explode in a very unpredictable manner if subjected to heat and pressure. Alfred Nobel became very interested in nitroglycerine and how it could be put to practical use in construction work. He also realized that the safety problems had to be solved and a method had to be developed for the controlled detonation of nitroglycerine. | | |



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**D** After his return to Sweden in 1863, Alfred Nobel concentrated on developing nitroglycerine as an explosive. Several explosions, including one (1864) in which his brother Emil and several other persons were killed, convinced the authorities that nitroglycerine production was exceedingly dangerous. They forbade further experimentation with nitroglycerine within the Stockholm city limits and Alfred Nobel had to move his experimentation to a barge anchored on Lake Malaren. Alfred was not discouraged and in 1864 he was able to start mass production of nitroglycerine. To make the handling of nitroglycerine safer Alfred Nobel experimented with different additives. He soon found that mixing nitroglycerine with kieselguhr would turn the liquid into a paste which could be shaped into rods of a size and form suitable for insertion into drilling holes. In 1867 he patented this material under the name of dynamite. To be able to detonate the dynamite rods he also invented a detonator (blasting cap) which could be ignited by lighting a fuse. These inventions were made at the same time as the pneumatic drill came into general use. Together these inventions drastically reduced the cost of blasting rock, drilling tunnels, building canals and many other forms of construction work.

**E** The market for dynamite and detonating caps grew very rapidly and Alfred Nobel also proved himself to be a very skillful entrepreneur and businessman. Over the years he founded factories and laboratories in some 90 different places in more than 20 countries. Although he lived in Paris much of his life he was constantly traveling. When he was not traveling or engaging in business activities Nobel himself worked intensively in his various laboratories, first in Stockholm and later in other places. He focused on the development of explosives technology as well as other chemical inventions including such materials as synthetic rubber and leather, artificial silk, etc. By the time of his death in 18%, he had 355 patents.

**F** Intensive work and travel did not leave much time for private life. At the age of 43, he was feeling like an old man. At this time he advertised in a newspaper "Wealthy, highly-educated elderly gentleman seeks the lady of mature age, versed in languages, as secretary and supervisor of household." The most qualified applicant turned out to be an Austrian woman, Countess Bertha Kinsky. After working a very short time for Nobel she decided to return to Austria to marry Count Arthur von Suttner. In spite of this Alfred Nobel and Bertha von Suttner remained friends and kept writing letters to each other for decades. Over the years Bertha von Suttner became increasingly critical of the arms race. She wrote a famous book, Lay Down Your Arms and became a prominent figure in the peace movement. No doubt this influenced Alfred Nobel when he wrote his final will which was to include a Prize for persons or organizations who promoted peace. Several years after the death of Alfred Nobel, the Norwegian Storting (Parliament) decided to award the 1905 Nobel Peace Prize to Bertha von Suttner.

**G** Alfred Nobel died in San Remo, Italy, on December 10, 1896. When his will was opened it came as a surprise that his fortune was to be used for Prizes in Physics, Chemistry, Physiology or Medicine, Literature and Peace. The executors of his will were two young engineers, Ragnar Sohlman and Rudolf Lilljequist. They set about forming the Nobel Foundation as an organization to take care of the financial assets left by Nobel for this purpose and to coordinate the work of the Prize-Awarding Institutions. This was not without its difficulties since the will was contested by relatives and questioned by authorities in various countries.



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H Alfred Nobel's greatness lay in his ability to combine the penetrating mind of the scientist and inventor with the forward-looking dynamism of the industrialist. Nobel was very interested in social and peace-related issues and held what were considered radical views in his era. He had a great interest in literature and wrote his own poetry and dramatic works. The Nobel Prizes became an extension and a fulfillment of his lifetime interests.

A **(Questions 1-7) Complete the notes below using** NO MORE THAN TWO WORDS **from the passage.** ***Write your answers in boxes 1-7 on your answer sheet.***

**Education:**

Having accumulated a great fortune in his business, Nobel's father determined to give his son the best education and sent him abroad to be trained in (1) -------- during Nobel's study in Paris, he worked in a private laboratory, where he came in contact with a young engineer (2) ---------- and his invention nitroglycerine, a more powerful explosive than (3) ----------

**Benefits in construction works:**

Nobel became really interested in this new explosive and experimented on it. But nitroglycerine was too dangerous and was banned for experiments within the city of (4) --------. So Nobel had to move his experiments to a lake. To make nitroglycerine easily usable, Nobel invented dynamite along with (5)--------. while in the meantime (6) --------- became popular, all of which dramatically lowered the (7) -------- of construction works.

**Reading Passage 2: Read the following passage and answer the following questions**

**The Flavour Industry**

A. Read through the nutritional information on the food in your freezer, refrigerator or kitchen pantry, and you are likely to find a simple, innocuous-looking ingredient recurring on a number of products: "natural flavour". The story of what natural flavour is, how it got into your food, and where it came from is the result of more complex processes than you might imagine.

B. During the 1980s, health watchdogs and nutritionists began turning their attention to cholesterol, a waxy steroid metabolite that we mainly consume from animal-sourced products such as cheese, egg yolks, beef, poultry, shrimp, and pork. Nutritionists blamed cholesterol for contributing to the growing rates of obesity, heart disease, diabetes, and several cancers in Western societies. As extensive recognition of the matter grew amongst the common people, McDonald's stopped cooking their French fries in a mixture of cottonseed oil and beef tallow, and in 1990, the restaurant chain began using 100% vegetable oil instead.

C. This substantially lowered the amount of cholesterol in McDonald's fries, but it created a new dilemma The beef tallow and cottonseed oil mixture gave the French fries high cholesterol content, but it also gifted them with a rich aroma and "mouth-feel" that even James Beard, an American food critic, admitted he enjoyed. Pure vegetable oil is bland in comparison. Looking at the current ingredients list of McDonald's French fries, however, it is easy to see how they overcame this predicament. Aside from a few preservatives, there are essentially three main ingredients: potato, soybean oil, and the mysterious component of "natural flavour".



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**D.** Natural flavour also entered our diet through the rise in processed foods, which now make up over 90% (and growing) of the American diet, as well as representing a burgeoning industry in developing countries such as China and India Processed foods are essentially any foods that have been boxed, bagged, canned or packaged, and have a list of ingredients on the label. Sometimes, the processing involves adding a little sodium or sugar, and a few preservatives. Often, however, it is coloured, bleached, stabilized, emulsified, dehydrated, odour-concealed, and sweetened. This process typically saps any original flavour out of the product, and so, of course, flavour must be added back in as well.

**E.** Often this is "natural flavour", but while the term may bring to mind images of fresh barley, hand-ground spices, and dried herbs being traded in a bustling street market, most of these natural sources are, in fact, engineered to culinary perfection in a set of factories and plants of the New Jersey Turnpike outside of New York. Here, firms such as International Flavors & Fragrances, Harmen & Keimer, Flavor Dynamics, Frutarom and Elan Chemical isolate and manufacture the tastes that are incorporated in much of what we eat and drink. The sweet, summery burst of naturally squeezed orange juice, the wood-smoked aroma in barbeque sauces, and the creamy, buttery, fresh taste in many dairy products do not come from sun-drenched meadows or backyard grills but are formed in the labs and test tubes of these flavour industry giants.

**F.** The scientists – dubbed "flavourists" who create the potent chemicals that set our olfactory senses to overdrive use a mix of techniques that have been refined over many years. Part of it is dense, intricate chemistry: spectrometers, gas chromatographs, and headspace-vapor analyzers can break down components of a flavor in amounts as minute as one part per billion. Not to be outdone, however, the human nose can isolate aromas down to three parts per trillion. Flavourists, therefore, consider their work as much an art as a science, and flavorism requires a nose "trained" with a delicate and poetic sense of balance.

**G.** Should we be wary of the industrialization of natural flavour? On its own, the trend may not present any clear reason for alarm. Nutritionists widely agree that the real assault on health in the last few decades stems from an "unholy trinity" of sugar, fat, and sodium in processed foods. The natural flavour on its own is not a health risk. It does play a role, however, in helping these processed foods to taste fresh and nutritious, even when they are not. So, while the natural flavor industry should not be considered the culprit, we might think of it as a willing accomplice.

B

**Questions 8-11**

**Reading Passage 2 has SEVEN paragraphs, A-G. Just read paragraph A-D to answer questions 8 to 11. Which paragraph contains the following information? Write the correct letter. A-D, for 8-11 on your answer sheet.**

8. A place in the home where one may encounter the term "natural flavor"
9. An instance where a solution turns into a problem
10. Details about the transformation that takes place in processed grocery items
11. Examples of diet-related health conditions.



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| | C | **Questions 12-15**<br>**Do the following statements agree with the information given in Reading Passage 2?**<br>**For the questions 12 - 15 on your answer sheet, write**<br>TRUE. if the statement agrees with the information<br>FALSE. if the statement contradicts the information<br>NOT GIVEN If there is no information on this<br><br>12. On their own, vegetable oils do not have a strong flavor.<br>13. Soybean oil is lower in cholesterol than cottonseed oil.<br>14. Processed foods are becoming more popular in some Asian countries.<br>15. McDonald's replaced beef tallow with vegetable oil primarily to reduce the cost of production. | | |
| 2 | | **Grammar** | **0.5x06 = 3 Marks** | **CO2** |
| | A | **Read the sentences and identify if these sentences are Simple, Complex, Compound, or Compound-complex according to their structure:**<br>(i) Under the shade of a large banyan tree near the edge of the quiet village, an old man with a wooden walking stick waited silently for the bus. (ii) She opened the window to let in the cool morning air, but the strong wind blew her papers all over the floor. (iii) Although the book on the dusty shelf looked boring at first glance, it held a story that changed the boy's life forever. (iv) In a small box wrapped in red paper with a silver ribbon, Layla found a note written in her grandmother's handwriting. (v) The baby, tired from the long ride in the hot car with no air conditioning, finally fell asleep in his mother's arms. (vi) He wanted to explain the truth before it was too late, yet the heavy silence between them made it hard to speak. | | |
| 3. | | **Writing** | **1x 7 = 07 Marks** | **CO3** |
| | A | Suppose you are the Registrar of a private university. Write a **Memo/Memorandum** to call a meeting of all the heads of departments to discuss the reasons and solutions to the massive students' drop-out in recent semesters.<br>**Write at least 80-100 words.** | | |

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