



Daffodil International University

Faculty of Science & Information Technology

Department of Computer Science and Engineering

Mid-Semester Examination, Spring-2025

Course Code: ENG 102 Course Title: Writing and Comprehension

Level: 1 Term: 2 Batch: 67

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.]

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|----|---|-----------------|------|
| 1. | Reading | 1x 15= 15 Marks | CO's |
| | Reading Passage 1: Read the following passage and answer the following questions | | |
| | <p style="text-align: center;">Sport Science in Australia</p> <p>The professional career paths available to graduates from courses relating to human movement and sport science are as diverse as the graduate's imagination. However, undergraduate courses with this type of content, in Australia as well as in most other Western countries, were originally designed as preparation programmes for Physical Education (PE) teachers.</p> <p>The initial programmes commenced soon after the conclusion of World War II in the mid-1940s. One of the primary motives for these initiatives was the fact that, during the war effort, so many of the men who were assessed for military duty had been declared <u>unfit</u>. The government saw the solution in the providing of Physical Education programmes in <u>schools</u>, delivered by better prepared and specifically educated <u>PE teachers</u>.</p> <p>Later, in the 1970s and early 1980s, the surplus of Australians graduating with a PE degree obliged institutions delivering this qualification to identify <u>new employment opportunities</u> for their graduates, resulting in the first appearance of <u>degrees catering for recreation professionals</u>. In many instances, this diversity of programme delivery merely led to degrees, delivered by physical educators, as a side-line activity to the production of PE teachers.</p> <p>Whilst the need to produce Physical Education teachers remains a significant social need, and most developed societies demand the availability of quality leisure programmes for their citizens, the career options of graduates within this domain are still developing. The two most evident growth domains are in the area of the professional delivery of sport, and the role of a physical lifestyle for community health.</p> <p>The sports industry is developing at an unprecedented rate of growth. From a business perspective, sport is now seen as an area with the potential for high returns. It is quite significant that the businessman Rupert Murdoch broadened his business base from media to sport, having purchased an American baseball team and an Australian Rugby League competition, as well as seeking opportunities to</p> | | CO 1 |

invest in an English football club. No business person would see fit to invest in sport unless he was satisfied that this was a sound business venture with ideal revenue-generating opportunities.

These developments have confirmed sport as a business with professional management structures, marketing processes, and development strategies in place. They have indicated new and developing career paths for graduates of human movement science, sport science, exercise science and related degrees. Graduates can now visualise career paths extending into such diverse domains as sport management, sport marketing, event and facility management, government policy development pertaining to sport, sport journalism, sport psychology, and sport or athletic coaching.

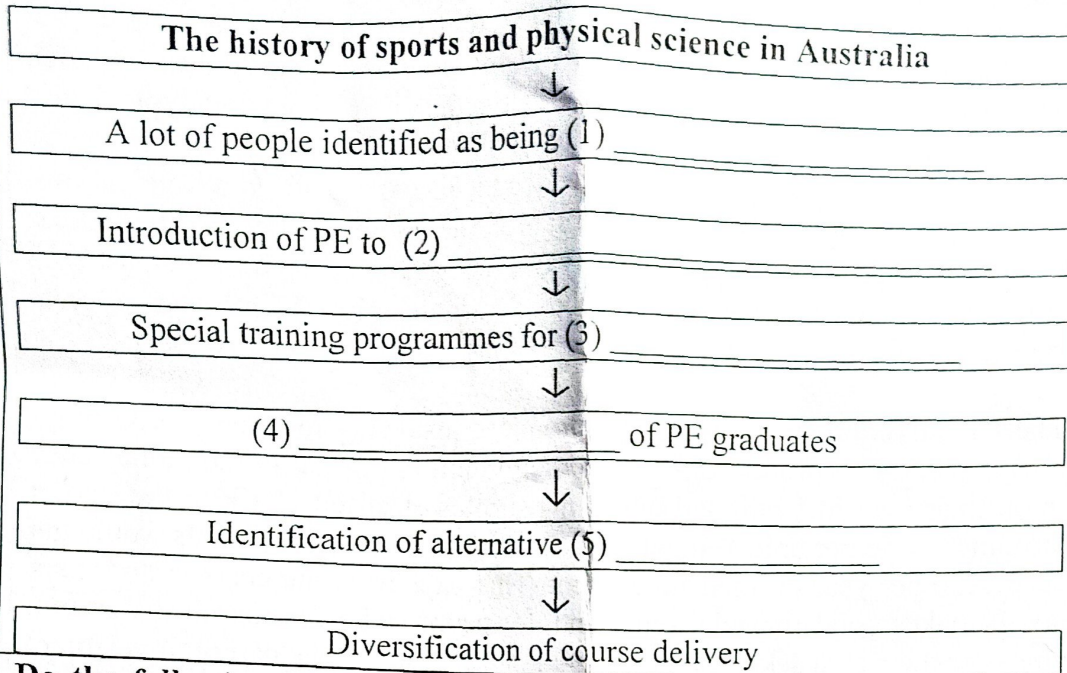
Business leaders will only continue their enthusiasm for sport if they receive returns for their money. Such returns will only be forthcoming if astute, enthusiastic and properly educated professionals are delivering the programs that earn appropriate financial returns. The successful universities of the 21st century will be those that have responded to this challenge by delivering such degrees.

A second professional growth area for this group of graduates is associated with community health. The increasing demand for government expenditure within health budgets is reaching the stage where most governments are simply unable to function in a manner that is satisfying their constituents. One of the primary reasons for this problem is the unhelpful emphasis on treatment in medical care programmes. Governments have traditionally given their senior health official the title of 'Minister for Health', when in fact this officer has functioned as 'Minister for Sickness and the Construction of Hospitals'. Government focus simply has to change. If the change is not brought about for philosophical reasons, it will occur naturally, because insufficient funding will be available to address the ever-increasing costs of medical support.

Graduates of human movement, exercise science and sport science have the potential to become major players in this shift in policy focus. It is these graduates who already have the skills, knowledge and understanding to initiate community health education programmes to reduce cardio-vascular disease, to reduce medical dependency upon diabetes, to improve workplace health leading to increased productivity, to initiate and promote programmes of activity for the elderly that reduce medical dependency, and to maintain an active lifestyle for the unemployed and disadvantaged groups in society. This is the graduate that governments will be calling upon to shift the community focus from medical dependency to healthy lifestyles in the decades ahead.

The career paths of these graduates are developing at a pace that is not evident in other professions. The contribution that these graduates can make to society, and the recognition of this contribution is at an unprecedented high, and all indications are that it will continue to grow.

A (Questions 1-5) Complete the flow chart below. Choose NO MORE THAN TWO WORDS from the passage for each answer.



B Do the following statements agree with the information given in Reading Passage 1? For the questions, 6 - 8 on your answer sheet, write

- TRUE. if the statement agrees with the information
 FALSE. if the statement contradicts the information
 NOT GIVEN If there is no information on this

6. It is inevitable that government priorities for health spending will change.
 7. Existing degree courses are unsuitable for careers in community health.
 8. Funding for sport science and related degrees has been increased considerably.

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

An assessment of micro-wind turbines

A In terms of micro-renewable energy sources suitable for private use, a 15-kilowatt (kW) turbine is at the biggest end of the spectrum. With a nine-metre diameter and a pole as high as a four-storey house, this is the most efficient form of wind micro-turbine, and the sort of thing you could install only if you had plenty of space and money. According to one estimate, a 15-kW micro-turbine (that's one with the maximum output), costing £41,000 to purchase and a further £9,000 to install, is capable of delivering 25,000 kilowatt-hours (kWh) of electricity each year if placed on a suitably windy site.

B I don't know of any credible studies of the greenhouse gas emissions involved in producing and installing turbines, so my estimates here are going to be even more broad than usual. However, it is worth trying. If turbine manufacture is about as carbon intensive per pound sterling of product as other generators and electrical motors, which seems a reasonable assumption, the carbon intensity of manufacture will be around 640 kilograms (kg) per £1,000 of value. Installation is probably about as carbon intensive as typical construction, at around 380 kg per £1,000. That makes the carbon footprint (the total amount of greenhouse gases that installing a turbine creates) 30 tonnes.

C The carbon savings from wind-powered electricity generation depend on the carbon intensity of the electricity that you're replacing. Let's assume that your generation replaces the coal-fuelled part of the country's energy mix. In other words, if you live in the UK, let's say that rather than replacing typical grid electricity, which comes from a mix of coal, gas, oil and renewable energy sources, the effect of your turbine is to reduce the use of coal-fired power stations. That's reasonable, because coal is the least preferable source in the electricity mix. In this case the carbon saving is roughly one kilogram per kWh, so you save 25 tonnes per year and pay back the embodied carbon in just 14 months - a great start.

D The UK government has recently introduced a subsidy for renewable energy that pays individual producers 24p per energy unit on top of all the money they save on their own fuel bill, and on selling surplus electricity back to the grid at approximately 5p per unit. With all this taken into account, individuals would get back £7,250 per year on their investment. That pays back the costs in about six years. It makes good financial sense and, for people who care about the carbon savings for their own sake, it looks like a fantastic move. The carbon investment pays back in just over a year, and every year after that is a 25-tonne carbon saving. (It's important to remember that all these sums rely on a wind turbine having a favourable location)

E So, at face value, the turbine looks like a great idea environmentally, and a fairly good long-term investment economically for the person installing it. However, there is a crucial perspective missing from the analysis so far. Has the government spent its money wisely? It has invested 24p per unit into each micro-turbine. That works out at a massive £250 per tonne of carbon saved. My calculations tell me that had the government invested its money in offshore wind farms, instead of subsidising smaller domestic turbines, they would have broken even after eight years. In other words, the micro-turbine works out as a good investment for individuals, but only because the government spends, and arguably wastes, so much money subsidising it. Carbon savings are far lower too.

F Nevertheless, although the micro-wind turbine subsidy doesn't look like the very best way of spending government resources on climate change mitigation, we are talking about investing only about 0.075 percent per year of the nation's GDP to get a one percent reduction in carbon emissions, which is a worthwhile benefit. In other words, it could be much better, but it could be worse. In addition, such investment helps to promote and sustain developing technology.

G There is one extra favourable way of looking at the micro-wind turbine, even if it is not the single best way of investing money in cutting carbon. Input-output modelling has told us that it is actually quite difficult to spend money without having a negative carbon impact. So if the subsidy encourages people to spend their money on a carbon-reducing technology such as a wind turbine, rather than on carbon-producing goods like cars, and services such as overseas holidays, then the reductions in emissions will be greater than my simple sums above have suggested.

Questions 9-15

Reading Passage 2 has SEVEN paragraphs, A-G. Choose the correct heading for each paragraph from the list of headings below. Write the correct number, i-ix.

List of Headings

- i. A better use for large sums of money.
- ii. The environmental costs of manufacture and installation.
- iii. Estimates of the number of micro-turbines in use.
- iv. The environmental benefits of running a micro-turbine.
- v. The size and output of the largest type of micro-turbine.
- vi. A limited case for subsidising micro-turbines.
- vii. Recent improvements in the design of micro-turbines.
- viii. An indirect method of reducing carbon emissions.
- ix. The financial benefits of running a micro-turbine.

- 9. Paragraph A _____
- 10. Paragraph B _____
- 11. Paragraph C _____
- 12. Paragraph D _____
- 13. Paragraph E _____
- 14. Paragraph F _____
- 15. Paragraph G _____

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| 2 | Grammar | 0.5x06 = 3 Marks | CO2 |
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A Read the underlined sentences and identify if these sentences are Simple, Complex, Compound, or Complex-compound according to their structure:
 (i). Although Michael had planned to wake up early, he kept hitting the snooze button until the sun was high in the sky. (ii). Beneath the endless sky filled with swirling clouds, the ocean waves crashed against the jagged cliffs. (iii) When he finally got out of bed, he realized that he had an important meeting in less than an hour. (iv). He rushed to get ready, but everything seemed to go wrong—his shirt was wrinkled, he couldn't find his keys, and his phone battery was nearly dead. (v). Through the dense, shadowy forest filled with ancient trees and whispering winds, a lone traveler moved cautiously under the pale moonlight. (vi). Beneath the grand chandelier, with its sparkling crystals reflecting the golden glow of the candles, the guests whispered in hushed tones.

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| 3. | Writing | 1x 7 = 07 Marks | CO3 |
|----|----------------|-----------------|-----|

A Suppose you are the Dean of the Faculty of Science and Information Technology, Daffodil International University. As a dean of the faculty, call a meeting, through a memo, of your faculty members, to discuss the problem of shifting the dates of Mid-semester Examination.

Write at least 80-100 words.