

Section B

This section contains 4 questions, out of which, you can attempt any two questions. Each question is of three Marks.

6. Consider the following texts, **S1** and **S2**:

S1: *Smart devices may have to manage sensitive information, for example the health conditions of a patient or data gathered from caregivers on the status of an elderly person. Clearly, such data must be protected against unauthorized diffusion or from malicious attacks.*

S2: *Smart devices may have to manage sensitive information that, often, must be protected against unauthorized diffusion or from malicious attacks. Some notable examples of sensitive information are data concerning the health conditions of a patient or data gathered from caregivers about the status of an elderly person.*

Between **S1** and **S2**, which of the text is easier to read and why? [3 Marks]

7. The connecting word **and** can make the sentence too long. For improved readability, divide the following italicized text into three sentences:

The aim of this paper is to confirm that how we speak and write generally reflects the way we think and that this is true not only at a personal but also at a national level, and to this end two European languages were analyzed, English and Italian, to verify whether the structure of the language is reflected in the lifestyle of the respective nations. [3 Marks]

8. It is in fact much easier to write using long sentences – that is, it is easier for you, but not for your reader!. Improve the readability of the following italicized text:

We did several surveys aimed at investigating whether stress increases in proportion to the number of children a couple has and each survey led to the same result, i.e. that there is no correlation, thus confirming the hypothesis that stress in the family is generally connected to factors other than size. [3 Marks]

9. The following italicized text imposes a lot of effort on the reader:

Considering that peach skin is particularly rich in antioxidants (Figs. 1A, 1B, 2A, 2B), positively reacts to UV-B radiation at the end of post harvest by increasing antioxidant activity (Fig. 3A), and, differently from flesh, is directly exposed to UV-B radiation under natural conditions, the study of free radical generation was performed specifically on this tissue.

Resolves the problem by splitting the sentence. [3 Marks]

Section C

This section contains two questions with internal choice for each. Each of the question is of seven Marks.

10. Write a template research paper including the references [1, 2]. The paper should include all the necessary sections. Each section should not exceed beyond four lines. [07 Marks]

OR

Write a template research paper including the references [3, 4]. The paper should include all the necessary sections. Each section should not exceed beyond four lines. [07 Marks]

11. A key issue when linking up sentences in a paragraph is to decide how to link one sentence to the previous one. The following (italicized text) is an extract from the beginning of a paragraph from a paper on pollution in soil:

(S1) The soil is a major source of pollution. (S2) Millions of chemicals are released into the environment and end up in the soil. (S3) The impact of most of these chemicals on human health is still not fully known. (S4) In addition, in the soil there are naturally occurring amounts of potentially toxic substances whose fate in the terrestrial environment is still poorly known.

Find out which two of the above sentences from **S1-S4** are not in good logical progression and why? [07 Marks]

OR

When you need to describe the various stages in a procedure, methodology, project and so on, it helps to use a numbering system. For example, first(ly), second(ly), third(ly), finally. Read the following italicized text:

Our methodology can be divided into three main parts: first of all the characterization of demographic changes between 2000 and 2010, in order to obtain a scenario for the future with regarding to population shifts. The results from this first part were used as inputs to obtain maps for 2010 to 2015. The resulting maps and input maps regarding climatic and political characteristics were inserted into our model in order to predict future patterns.

The colon in the first sentence gives the reader the impression that the author is going to mention all three stages together within the same sentence. The second two stages are not clearly marked.

Revise the text by providing the three stages in three separate sentences, which begin with a number indicator. [07 Marks]

References

- [1] N. Pavlov, A. Iliev, A. Rahnev, and N. Kyurkchiev, A note on the "Mean Value" software reliability model, *International Journal of Pure and Applied Mathematics*, **118**, No. 4 (2018), 949-956.
 - [2] N. Kumar, Z. Vámosy, and Z. M. Szabó-Resch, Robot obstacle avoidance using bumper event, In: *IEEE 11th International Symposium on Applied Computational Intelligence and Informatics (SACI)*, Timisoara, Romania (2016), 485-490.
 - [3] G. Kertész, S. Szénási, and Z. Vámosy, Multi-directional image projections with fixed resolution for object matching, *Acta Polytechnica Hungarica*, **15**, No. 2 (2018), 211-229.
 - [4] N. Kumar, M. Takács, and Z. Vámosy, Robot navigation in unknown environment using fuzzy logic, In: *IEEE 15th International Symposium on Applied Machine Intelligence and Informatics (SAMI)*, Herl'any, Slovakia (2017), 279-284.
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