

Question 1:

Your teacher recommended you to read the book 'Deep Learning with Python'. After reading the book, you want to summarize it. What kind of summarization method would you use for this purpose?

1. Abstractive single document summarization
  2. Abstractive multi document summarization
  3. Extractive single document summarization
  4. Extractive multi document summarization
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- a. 1, 2
  - b. 3, 4
  - c. 1, 3
  - d. 2, 4

Extractive: original sent., Abstractive: rephrase, Option C) is correct.

Question 2:

Which of the following is/are True?

- a. PageRank based algorithm is used to compute the sentence centrality vector
- b. Query-focused summarization can be thought of as a simple question answering system
- c. The underlying hypothesis of LexRank algorithm is sentences that convey the theme of the document are more similar to each other
- d. All of the above

Multi-choice multi-correct: Option a), c) is correct.

Question 3:

Which of the following is/are True?

- a. ROUGE metric is as good as human evaluation
- b. LexRank can be applied for multi-document summarization
- c. In optimization based approach for summarization, the inference problem is to select a subset  $S$  of textual units found such that summary score is maximized
- d. Maximum Marginal Relevance strives to reduce redundancy while maintaining query relevance.

Multi-choice multi-correct: Option b), c), d)

Question 4:

It is estimated that 20% of GPT-4 generated texts are fake. Google built some AI system to filter these fake contents. An AI system claims that it can detect 99% of fake contents, and the probability for a false positive (a real content detected as fake) is 3%. Now if a content is detected as fake, then what is the probability that it is in fact a real content?

- a. 0.084
- b. 0.118
- c. 0.108
- d. None of the above

Option C) is correct.

For question 5-8 follow the below Table . One classifier predicts the following. The correct prediction is shown by the tick mark under Match column.

No	Actual	Predicted	Match
1	Airplane	Airplane	<input checked="" type="checkbox"/>
2	Car	Boat	<input type="checkbox"/>
3	Car	Car	<input checked="" type="checkbox"/>
4	Car	Car	<input checked="" type="checkbox"/>
5	Car	Boat	<input type="checkbox"/>
6	Airplane	Boat	<input type="checkbox"/>
7	Boat	Boat	<input checked="" type="checkbox"/>
8	Car	Airplane	<input type="checkbox"/>
9	Airplane	Airplane	<input checked="" type="checkbox"/>
10	Car	Car	<input checked="" type="checkbox"/>

Question 5:

What is the macro-averaged f1 score?

- a. 0.54
- b. 0.56
- c. 0.58
- d. 0.64

Option C) is correct

Question 6:

What is the micro averaged precision?

- a. 0.58
- b. 0.64
- c. 0.50
- d. 0.60

Option D) is correct

Question 7:

What is the f1 score of boat class?

- a. 0.40
- b. 0.30
- c. 0.58
- d. 0.67

Option A) is correct  $\% = 0.4$

Question 8:

What is the accuracy of the classifier?

- a. 0.40
- b. 0.50
- c. 0.60
- d. 0.90

$6/10 = 0.6$  Option c) is correct