1. What is the primary goal of text classification in NLP?

A) To predict numerical data

B) To classify images

C) To categorize text into predefined labels

D) To translate languages

2. Which technique is commonly used for spam detection?

A) Object detection

B) Text classification

C) Speech synthesis

D) Named entity recognition

3. Which of the following is NOT a preprocessing technique?

A) Tokenization

B) Stopword removal

C) Compilation

D) Lemmatization

4. What does TF-IDF stand for?

A) Text Frequency–Inverted Document Flow

B) Term Frequency–Inverse Document Frequency

C) Total Frequency–Indexed Document Frequency

D) Tokenized Form–Indexed Document Format

5. Which model assumes word independence?

A) Naïve Bayes

B) SVM

C) K-Means

D) Logistic Regression

6. Which Naïve Bayes variant is used for word counts?

A) Gaussian

B) Bernoulli

C) Multinomial

D) Logistic

7. Which algorithm finds the optimal hyperplane for classification?

A) Naïve Bayes

B) Decision Tree

C) SVM

D) K-NN

8. Which classifier works well with high-dimensional data?

A) Decision Trees

B) Random Forest

C) SVM

D) Naïve Bayes

9. What is the primary input for machine learning models in NLP?

A) Images

B) Raw text

C) Numerical vectors

D) Audio signals

10. Which feature extraction technique counts how often each word appears?

A) TF-IDF

B) Bag-of-Words

C) GloVe

D) FastText

11. Which metric gives the overall correctness of a model?

A) Precision

B) Recall

C) F1-Score

D) Accuracy

12. Which metric is most useful when false positives are costly?

A) Recall

B) Accuracy

C) Precision

D) Confusion matrix

13. Which metric balances precision and recall?

A) F1-Score

B) Accuracy

C) Confusion Matrix

D) Recall

14. What is the use of a confusion matrix?

A) To calculate accuracy

B) To visualize errors

C) To split data

D) To extract features

15. What type of classification assigns multiple labels to a text?

A) Binary

B) Multi-Class

C) Multi-Label

D) Hierarchical

16. Which deep learning model works well with sequence data?

A) CNN

B) RNN

C) SVM

D) Logistic Regression

17. Which model improves RNN's ability to remember long-term dependencies?

A) Naïve Bayes

B) CNN

C) LSTM

D) SVM

18. Which model captures local patterns in text like n-grams?

A) CNN

B) RNN

C) LSTM

D) SVM

19. Which model architecture uses attention mechanism and context?

A) SVM

B) Transformer

C) Naïve Bayes

D) CNN

20. Which library is commonly used for classical NLP in Python?

A) PyTorch

B) TensorFlow

C) Scikit-learn

D) Transformers

21. Which method captures meaning by subword units?

A) Word2Vec

B) GloVe

C) FastText

D) TF-IDF

22. Which model uses a count-based approach to generate embeddings?

A) GloVe

B) Word2Vec

C) FastText

D) BoW

23. Which model uses surrounding words to predict the center word?

A) Skip-Gram

B) CBOW

C) TF-IDF

D) BoW

24. Which technique works best on rare words?

A) BoW

B) CBOW

C) Skip-Gram

D) TF-IDF

25. What does the Naïve assumption refer to?

A) Features are independent

B) Data is balanced

C) Words are clustered

D) Data is continuous