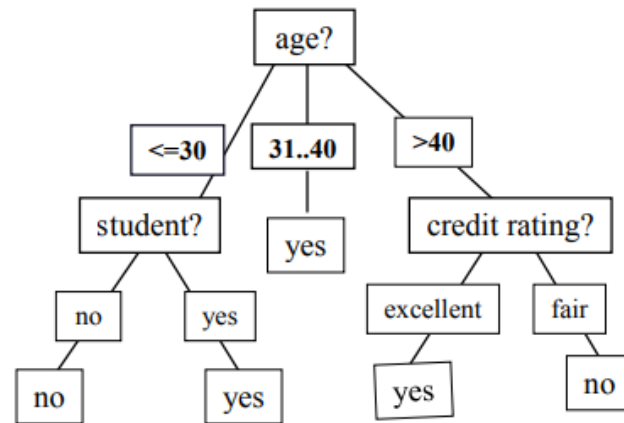


### UNIT-3

1. Classification is supervised learning. Justify.
2. Entropy is an important concept in information theory. What is its significance in mining context.
3. What is OverFitting?
4. Explain Naive Baye's Classification.
5. Describe the essential features of decision trees in context of classification.
6. What are the advantages and disadvantages of decision tress over other classification methods?
7. Explain ID3 Algorithm.
8. Explain the methods for computing best split.
9. What is classification?
10. What is Bayesian theorem?
11. Write the Algorithm for Decision Tree?
12. What are the Conditions for stopping partitioning in a Decision Tree induction?
13. What is tree pruning?
14. Write a note on the naïve Bayes classifier
15. What are the Steps involved in classification?
16. Write a short note on cross validation.
17. Write a note on Bootstrapping
18. Write a Short note on Extracting Classification Rules from Trees
19. Define pre pruning.
20. Define post pruning.
21. Explain the measures that can be used to determine the best way to split the record
22. Explain the rule based classifier with an example
23. Discuss Classifier accuracy with examples.
24. Explain in detail about ensemble methods

25. Extract a rule based system from a decision tree given bellow, use rule-based ordering technique.



26. i. Apply the Naive Bayes classifier to classify example 8, to see whether it is poisonous or not.

ii. Use the same table to construct decision tree and test whether example 8, is poisonous or not.

Example	Colour	Toughness	Fungus	Appearance	Poisonous
1	Green	Hard	N	Smooth	N
2	Green	Hard	Y	Smooth	N
3	Brown	Soft	N	Wrinkled	N
4	Orange	Hard	N	Wrinkled	Y
5	Green	Soft	Y	Smooth	Y
6	Green	Hard	Y	Wrinkled	Y
7	Orange	Hard	N	Wrinkled	Y
8	Green	Soft	Y	Wrinkled	?

27. What are the metrics used in evaluating the classifier performance?

