Score: **100%**

No. of questions: **7**

Correct answer: **7**

Incorrect answer: **0**

Show incorrect attempt only

Question 1

1 Mark

What is the reason behind the better performance of ensemble models?

A High variance

B Low variance

C None of the above

Correct Answer: B. Low variance

Ensemble model leads to low variance which helps to improve the performance of the model.

Question 2

2 Marks

What exactly the term "Ensembling" stands for in predictive modeling?

A Combining different datasets for better predictions

B Combining different models for better predictions ✓

C Combining independent variables to form new ones

D None of the above

Correct Answer: B. Combining different models for better predictions

Ensembling refers to combining different models in order to achieve better predictions.

Question 3 ✓

3 marks

Generally, an ensemble method works better, if the individual base models have _____.

A less correlation among predictions ✓

B high correlation among predictions

C Correlation does not have any impact on ensemble output

D None of the above

Correct Answer: A. less correlation among predictions

A lower correlation among ensemble model members will increase the error-correcting capability of the model. So, it is preferred to use models with low correlations when creating ensembles.

Question 4 ✓

1 Mark

Ensemble of classifiers may or may not be more accurate than any of its individual model.

A True ✓

Correct Answer: A. True

Usually, ensemble would improve the model, but it is not necessary. Hence, the first option is correct.

Question 5

2 Marks

Ensemble learning can only be applied to supervised learning methods.

A True

B False

Correct Answer: B. False

Generally, we use ensemble technique for supervised learning algorithms. But you can also use an ensemble for unsupervised learning algorithms.

Question 6

3 marks

Which of the following is/are the benefit of an ensemble model?

a. Better performance
b. Generalized models
c. Better interpretability

A a and c

B b and c

C a and b

D a, b, and c

Correct Answer: C. a and b

Better performance and generalized models are the benefits of ensemble modeling. Better interpretability as a benefit of an ensemble model is incorrect because when we ensemble multiple models, we lose interpretability of the models.

Question 7

1 Mark

Which of the following is true about averaging ensemble?

A It can only be used in the classification problem

B It can only be used in the regression problem

C It can be used in both classification as well as regression problem

D None of the above

Correct Answer: C. It can be used in both classification as well as regression problem

You can use average ensemble on classification as well as regression. In classification, you can apply averaging on prediction probabilities whereas in regression you can directly average the prediction of different models.