DECISION TREE CLASSIFICATION

1. What is the percentage of correct classification of both Purchased and Not purchased (overall performance) to the total input of the test set?
   Accuracy = 0.87

2. What is the percentage of correct classification of Purchased to the total input of Purchased in the test set?
   Recall = 0.84

3. What is the percentage of correct classification of Not purchased to the total input of Not purchased in the test set?
   Recall = 0.89

4. What is the percentage of correct classification of Purchased to the sum of correctly classified as Purchased and wrongly classified as Purchased in the test set?
   Precision = 0.82

5. What is the percentage of correct classification of Not purchased to the sum of correctly classified as Not purchased and wrongly classified as Not purchased in the test set?
   Precision = 0.90

6. What is the overall performance of Purchased?
   F1-score = 0.83

7. What is the overall performance of Not purchased?
   F1-score = 0.90

8. What is the average performance of Precision (correctly and wrongly classified)?
   Macro avg = 0.86

9. What is the average performance of Recall (correctly classified)?
   Macro avg = 0.87

10. What is the average performance of F1-Measure (overall performance)?
    Macro avg = 0.86

11. What is the sum of product of proportion rate (Weight) of Precision class?
    Weighted avg = 0.87

12. What is the sum of product of proportion rate (Weight) of Recall class?
    Weighted avg = 0.87

13. What is the sum of product of proportion rate (Weight) of F1-Measure?
    Weighted avg = 0.87

RANDOM FOREST CLASSIFICATION

1. What is the percentage of correct classification of both Purchased and Not purchased (overall performance) to the total input of the test set?
   Accuracy = 0.90

2. What is the percentage of correct classification of Purchased to the total input of Purchased in the test set?
   Recall = 0.88

3. What is the percentage of correct classification of Not purchased to the total input of Not purchased in the test set?
   Recall = 0.92

4. What is the percentage of correct classification of Purchased to the sum of correctly classified as Purchased and wrongly classified as Purchased in the test set?
   Precision = 0.86

5. What is the percentage of correct classification of Not purchased to the sum of correctly classified as Not purchased and wrongly classified as Not purchased in the test set?
   Precision = 0.93

6. What is the overall performance of Purchased?
   F1-score = 0.87

7. What is the overall performance of Not purchased?
   F1-score = 0.92

8. What is the average performance of Precision (correctly and wrongly classified)?
   Macro avg = 0.89

9. What is the average performance of Recall (correctly classified)?
   Macro avg = 0.90

10. What is the average performance of F1-Measure (overall performance)?
    Macro avg = 0.90

11. What is the sum of product of proportion rate (Weight) of Precision class?
    Weighted avg = 0.90

12. What is the sum of product of proportion rate (Weight) of Recall class?
    Weighted avg = 0.90

13. What is the sum of product of proportion rate (Weight) of F1-Measure?
    Weighted avg = 0.90

SVM CLASSIFICATION

1. What is the percentage of correct classification of both Purchased and Not purchased (overall performance) to the total input of the test set?
   Accuracy = 0.78

2. What is the percentage of correct classification of Purchased to the total input of Purchased in the test set?
   Recall = 0.47

3. What is the percentage of correct classification of Not purchased to the total input of Not purchased in the test set?
   Recall = 0.96

4. What is the percentage of correct classification of Purchased to the sum of correctly classified as Purchased and wrongly classified as Purchased in the test set?
   Precision = 0.88

5. What is the percentage of correct classification of Not purchased to the sum of correctly classified as Not purchased and wrongly classified as Not purchased in the test set?
   Precision = 0.76

6. What is the overall performance of Purchased?
   F1-score = 0.61

7. What is the overall performance of Not purchased?
   F1-score = 0.85

8. What is the average performance of Precision (correctly and wrongly classified)?
   Macro avg = 0.82

9. What is the average performance of Recall (correctly classified)?
   Macro avg = 0.72

10. What is the average performance of F1-Measure (overall performance)?
    Macro avg = 0.73

11. What is the sum of product of proportion rate (Weight) of Precision class?
    Weighted avg = 0.81

12. What is the sum of product of proportion rate (Weight) of Recall class?
    Weighted avg = 0.78

13. What is the sum of product of proportion rate (Weight) of F1-Measure?
    Weighted avg = 0.76