**Book Model**

Input Layer – 32 Units – Activation Relu – Input dimensions 8

Hidden Layer – 16 Units – Activation Relu

Output Layer – 1 Unit – Activation Sigmoid

Optimizer Adam – Loss Binary Cross entropy – Epochs 200

Training Accuracy 90.22% - Testing Accuracy 74.03%

**M1 Model (Modification 1)**

Input Layer – 32 Units – Activation Relu – Input dimensions 8

Hidden Layer 1 – 32 Units – Activation Relu

Hidden Layer 2 – 32 Units – Activation Relu

Hidden Layer 3 – 32 Units – Activation Relu

Output Layer – 1 Unit – Activation Sigmoid

Optimizer Adam – Loss Binary Cross entropy – Epochs 200

Training Accuracy 100.00% - Testing Accuracy 69.48%

**M1 Model (Modification 1)**

Epochs 70

Training Accuracy 99.39% - Testing Accuracy 68.83%

**M2 Model**

Input Layer – 128 Units – Activation Relu – Input dimensions 8

Hidden Layer 1 – 128 Units – Activation Relu

Hidden Layer 2 – 128 Units – Activation Relu

Output Layer – 1 Unit – Activation Sigmoid

Optimizer Adam – Loss Binary Cross entropy – Epochs 70

Training Accuracy 100.00% - Testing Accuracy 72.08%

**M2 Model**

Epochs 25

Training Accuracy 94.70% - Testing Accuracy 72.73%

Batch Size 1

Training accuracy 92.87% - Testing Accuracy 70.13%

**M3 Model**

Input Layer – 128 Units – Activation Relu – Input Dimensions 8

Hidden Layer 1 – 128 Units – Activation Relu

Hidden Layer 2 – 128 Units – Activation Relu

Hidden Layer 3 – 128 Units – Activation Relu

Hidden Layer 4 – 128 Units – Activation Relu

Output Layer – 1 Unit – Activation Sigmoid

Optimizer SGD – Loss Mean Squared Error – Epochs 75 - Batch Size 4

Training accuracy 95.32% - Testing Accuracy: 75.32%

**M4 Model**

Input Layer – 128 Units – Activation Relu – Input Dimensions 8

Hidden Layer 1 – 128 Units – Activation Relu

Hidden Layer 2 – 64 Units – Activation Relu

Hidden Layer 3 – 32 Units – Activation Relu

Hidden Layer 4 – 16 Units – Activation Relu

Output Layer – 1 Unit – Activation Sigmoid

Optimizer SGD – Loss Mean Squared Error – Epochs 75 - Batch Size 4

Training accuracy 93.69% - Testing Accuracy: 78.57%

**M5 Model**

Input Layer – 10 Units – Activation Relu – Input Dimensions 8

Output Layer – 1 Unit – Activation Sigmoid

Optimizer SGD – Loss Mean Squared Error – Epochs 75 – Batch Size 4

Training accuracy 76.58% - Testing Accuracy: 80.52%