**Student Names:**

**Student IDs:**

*Briefly describe the hyperparameter tuning strategies you used in this assignment. Then record your optimal hyperparameters and test/val performance for the four different network types*

**Two-layer Relu Activation Network**

Best hyperparameters (if you changed any of the other default hyperparameters like initialization method, etc. please note that as well):

|  |  |
| --- | --- |
| Batch size: |  |
| Learning rate: |  |
| Hidden layer size: |  |
| Regularization coefficient: |  |

Record the results for your best hyperparameter setting below:

|  |  |
| --- | --- |
| Validation accuracy: |  |
| **Test accuracy:** |  |

**Two-layer Sigmoid Activation Network**

Best hyperparameters (if you changed any of the other default hyperparameters like batch size, initialization method, etc. please note that as well):

|  |  |
| --- | --- |
| Batch size: |  |
| Learning rate: |  |
| Hidden layer size: |  |
| Regularization coefficient: |  |

Record the results for your best hyperparameter setting below:

|  |  |
| --- | --- |
| Validation accuracy: |  |
| **Test accuracy:** |  |

**Three-layer Relu Activation Network**

Best hyperparameters (if you changed any of the other default hyperparameters like batch size, initialization method, etc. please note that as well):

|  |  |
| --- | --- |
| Batch size: |  |
| Learning rate: |  |
| Hidden layer size: |  |
| Regularization coefficient: |  |

Record the results for your best hyperparameter setting below:

|  |  |
| --- | --- |
| Validation accuracy: |  |
| **Test accuracy:** |  |

**Three-layer Sigmoid Activation Network**

Best hyperparameters (if you changed any of the other default hyperparameters like batch size, initialization method, etc. please note that as well):

|  |  |
| --- | --- |
| Batch size: |  |
| Learning rate: |  |
| Hidden layer size: |  |
| Regularization coefficient: |  |

Record the results for your best hyperparameter setting below:

|  |  |
| --- | --- |
| Validation accuracy: |  |
| **Test accuracy:** |  |