--- Training and Evaluating MLP ---

Epoch [1/25], Train Loss: 1.6616, Train Acc: 0.4114, Val Loss: 1.5349, Val Acc: 0.4506

Epoch [2/25], Train Loss: 1.4491, Train Acc: 0.4904, Val Loss: 1.4614, Val Acc: 0.4818

Epoch [3/25], Train Loss: 1.3365, Train Acc: 0.5280, Val Loss: 1.4810, Val Acc: 0.4821

Epoch [4/25], Train Loss: 1.2427, Train Acc: 0.5636, Val Loss: 1.4207, Val Acc: 0.5048

Epoch [5/25], Train Loss: 1.1548, Train Acc: 0.5919, Val Loss: 1.4118, Val Acc: 0.5164

Epoch [6/25], Train Loss: 1.0720, Train Acc: 0.6190, Val Loss: 1.4306, Val Acc: 0.5138

Epoch [7/25], Train Loss: 0.9928, Train Acc: 0.6475, Val Loss: 1.4700, Val Acc: 0.5137

Epoch [8/25], Train Loss: 0.9061, Train Acc: 0.6772, Val Loss: 1.5020, Val Acc: 0.5130

Epoch [9/25], Train Loss: 0.8365, Train Acc: 0.7009, Val Loss: 1.5703, Val Acc: 0.5217

Epoch [10/25], Train Loss: 0.7533, Train Acc: 0.7309, Val Loss: 1.6575, Val Acc: 0.5131

Epoch [11/25], Train Loss: 0.6898, Train Acc: 0.7522, Val Loss: 1.7323, Val Acc: 0.5098

Epoch [12/25], Train Loss: 0.6265, Train Acc: 0.7752, Val Loss: 1.7990, Val Acc: 0.5194

Epoch [13/25], Train Loss: 0.5766, Train Acc: 0.7947, Val Loss: 1.9098, Val Acc: 0.5125

Epoch [14/25], Train Loss: 0.5176, Train Acc: 0.8162, Val Loss: 2.0002, Val Acc: 0.5161

Epoch [15/25], Train Loss: 0.4946, Train Acc: 0.8234, Val Loss: 2.0980, Val Acc: 0.5148

Epoch [16/25], Train Loss: 0.4440, Train Acc: 0.8423, Val Loss: 2.1122, Val Acc: 0.5158

Epoch [17/25], Train Loss: 0.4131, Train Acc: 0.8536, Val Loss: 2.2712, Val Acc: 0.5191

Epoch [18/25], Train Loss: 0.3838, Train Acc: 0.8615, Val Loss: 2.5186, Val Acc: 0.5104

Epoch [19/25], Train Loss: 0.3615, Train Acc: 0.8720, Val Loss: 2.6031, Val Acc: 0.5151

Epoch [20/25], Train Loss: 0.3534, Train Acc: 0.8757, Val Loss: 2.5638, Val Acc: 0.5212

Epoch [21/25], Train Loss: 0.3301, Train Acc: 0.8840, Val Loss: 2.7633, Val Acc: 0.5220

Epoch [22/25], Train Loss: 0.3004, Train Acc: 0.8944, Val Loss: 2.8315, Val Acc: 0.5091

Epoch [23/25], Train Loss: 0.2985, Train Acc: 0.8937, Val Loss: 2.9047, Val Acc: 0.5118

Epoch [24/25], Train Loss: 0.3036, Train Acc: 0.8927, Val Loss: 3.0854, Val Acc: 0.5079

Epoch [25/25], Train Loss: 0.2856, Train Acc: 0.9002, Val Loss: 3.1752, Val Acc: 0.5064

--- MLP Test Results ---

Test Loss: 3.2325

Test Accuracy: 0.5046 (5046/10000)

--- Training and Evaluating CNN ---

Epoch [1/25], Train Loss: 1.4425, Train Acc: 0.4802, Val Loss: 1.1549, Val Acc: 0.5959

Epoch [2/25], Train Loss: 1.0444, Train Acc: 0.6346, Val Loss: 0.9776, Val Acc: 0.6581

Epoch [3/25], Train Loss: 0.8755, Train Acc: 0.6972, Val Loss: 0.8882, Val Acc: 0.6890

Epoch [4/25], Train Loss: 0.7663, Train Acc: 0.7340, Val Loss: 0.8285, Val Acc: 0.7082

Epoch [5/25], Train Loss: 0.6843, Train Acc: 0.7657, Val Loss: 0.8082, Val Acc: 0.7241

Epoch [6/25], Train Loss: 0.6143, Train Acc: 0.7893, Val Loss: 0.7893, Val Acc: 0.7313

Epoch [7/25], Train Loss: 0.5538, Train Acc: 0.8101, Val Loss: 0.8836, Val Acc: 0.7014

Epoch [8/25], Train Loss: 0.4942, Train Acc: 0.8307, Val Loss: 0.8293, Val Acc: 0.7194

Epoch [9/25], Train Loss: 0.4384, Train Acc: 0.8492, Val Loss: 0.8322, Val Acc: 0.7312

Epoch [10/25], Train Loss: 0.3946, Train Acc: 0.8630, Val Loss: 0.8413, Val Acc: 0.7344

Epoch [11/25], Train Loss: 0.3435, Train Acc: 0.8801, Val Loss: 0.8903, Val Acc: 0.7300

Epoch [12/25], Train Loss: 0.3057, Train Acc: 0.8934, Val Loss: 0.9327, Val Acc: 0.7335

Epoch [13/25], Train Loss: 0.2656, Train Acc: 0.9071, Val Loss: 1.0100, Val Acc: 0.7276

Epoch [14/25], Train Loss: 0.2371, Train Acc: 0.9169, Val Loss: 1.0600, Val Acc: 0.7304

Epoch [15/25], Train Loss: 0.2080, Train Acc: 0.9252, Val Loss: 1.1174, Val Acc: 0.7235

Epoch [16/25], Train Loss: 0.1826, Train Acc: 0.9368, Val Loss: 1.1874, Val Acc: 0.7298

Epoch [17/25], Train Loss: 0.1562, Train Acc: 0.9446, Val Loss: 1.3211, Val Acc: 0.7163

Epoch [18/25], Train Loss: 0.1459, Train Acc: 0.9477, Val Loss: 1.4159, Val Acc: 0.7178

Epoch [19/25], Train Loss: 0.1310, Train Acc: 0.9535, Val Loss: 1.4810, Val Acc: 0.7135

Epoch [20/25], Train Loss: 0.1229, Train Acc: 0.9560, Val Loss: 1.4654, Val Acc: 0.7169

Epoch [21/25], Train Loss: 0.1143, Train Acc: 0.9587, Val Loss: 1.5273, Val Acc: 0.7194

Epoch [22/25], Train Loss: 0.1018, Train Acc: 0.9626, Val Loss: 1.6353, Val Acc: 0.7161

Epoch [23/25], Train Loss: 0.1034, Train Acc: 0.9621, Val Loss: 1.7099, Val Acc: 0.7217

Epoch [24/25], Train Loss: 0.0932, Train Acc: 0.9666, Val Loss: 1.7900, Val Acc: 0.7111

Epoch [25/25], Train Loss: 0.0864, Train Acc: 0.9688, Val Loss: 1.9266, Val Acc: 0.7038

--- CNN Test Results ---

Test Loss: 1.9714

Test Accuracy: 0.7137 (7137/10000)

--- Comparison of MLP and CNN ---

MLP Test Accuracy: 0.5046, MLP Test Loss: 3.2325

CNN Test Accuracy: 0.7137, CNN Test Loss: 1.9714