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sh ./scripts/train_nus_wide.sh
Random Seed: 3483
attributes are combined in this order-> seen+unseen
Data loading finished, Time taken: 12.659903526306152
REMOVING ZEROS LABELS
Data with N=20 labels=torch.Size([153203, 925])
Full Data labels=torch.Size([154812, 925]) with min label/feature = 1 and max
label/feature = 117
USING TRAIN FEATURES WITH <=N
Training data already trimmed and converted
seen=1.0, unseen=0.5, seen-unseen=0.5
syn num=1
GZSL TEST LABELS: torch.Size([306405, 1006])
Data preprocssing finished, Time taken: 27.9346866607666
training samples: 153203
Encoder(
  (fc1): Linear(in_features=4396, out_features=4096, bias=True)
  (fc3): Linear(in_features=4096, out_features=600, bias=True)
  (lrelu): LeakyReLU(negative_slope=0.2, inplace)
  (linear_means): Linear(in_features=600, out_features=300, bias=True)
  (linear_log_var): Linear(in_features=600, out_features=300, bias=True)
)
CLF(
  (early_fusion): generator(
    (fc1): Linear(in_features=600, out_features=4096, bias=True)
    (fc2): Linear(in_features=4096, out_features=4096, bias=True)
    (lrelu): LeakyReLU(negative_slope=0.2, inplace)
  )
  (late_fusion): generator(
    (fc1): Linear(in_features=600, out_features=4096, bias=True)
    (fc2): Linear(in_features=4096, out_features=4096, bias=True)
    (lrelu): LeakyReLU(negative_slope=0.2, inplace)
  )
  (attn): Fusion_Attention(
    (self_attn): MultiHeadAttention(
      (q_linear): Linear(in_features=4096, out_features=4096, bias=False)
      (v_linear): Linear(in_features=4096, out_features=4096, bias=False)
      (k_linear): Linear(in_features=4096, out_features=4096, bias=False)
      (out): Linear(in_features=4096, out_features=4096, bias=False)
      (dropout_1): Dropout(p=0.1)
      (dropout_2): Dropout(p=0.1)
    )
  )
  (feedforward_net): FeedForward(
    (linear_1): Linear(in_features=4096, out_features=8192, bias=True)
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(linear_2): Linear(in_features=8192, out_features=4096, bias=True)
)
)
)
Discriminator(
  (fc1): Linear(in_features=4396, out_features=4096, bias=True)
  (fc2): Linear(in_features=4096, out_features=1, bias=True)
  (lrelu): LeakyReLU(negative_slope=0.2, inplace)
)
[0/70] Loss_D: 15.2730 Loss_G: -0.5655, Loss_E: 2754.2975, Wasserstein_dist:
-2.1553
Generator 0th finished time taken 1094.8441059589386
torch.Size([306600, 1006])
GZSL: AP=0.0211
GZSL K=5 : f1=0.1598,P=0.1887,R=0.1386
GZSL K=3 : f1=0.1472,P=0.2405,R=0.1060
GZSL classification finished time taken 359.084858417511
ZSL DATA torch.Size([85172, 81])
ZSL: AP=0.0851
ZSL K=5 : f1=0.2566,P=0.1765,R=0.4702
ZSL K=3 : f1=0.3069,P=0.2494,R=0.3987
ZSL classification finished time taken 105.58908605575562
[1/70] Loss_D: 15.7179 Loss_G: -0.7272, Loss_E: 2750.7077, Wasserstein_dist:
-2.4286
Generator 1th finished time taken 1142.5891194343567
torch.Size([306600, 1006])
GZSL: AP=0.0256
GZSL K=5 : f1=0.1695,P=0.2000,R=0.1470
GZSL K=3 : f1=0.1518,P=0.2481,R=0.1094
GZSL classification finished time taken 350.1818187236786
ZSL DATA torch.Size([85544, 81])
ZSL: AP=0.1063
ZSL K=5 : f1=0.2677,P=0.1841,R=0.4906
ZSL K=3 : f1=0.3021,P=0.2456,R=0.3926
ZSL classification finished time taken 109.93856692314148
[2/70] Loss_D: 14.3085 Loss_G: -0.1282, Loss_E: 2750.2716, Wasserstein_dist:
-0.2978
Generator 2th finished time taken 1063.2681517601013
torch.Size([306600, 1006])
GZSL: AP=0.0277
GZSL K=5 : f1=0.1580,P=0.1865,R=0.1370
GZSL K=3 : f1=0.1458,P=0.2382,R=0.1050
GZSL classification finished time taken 343.8805809020996
ZSL DATA torch.Size([85296, 81])
ZSL: AP=0.1141
ZSL K=5 : f1=0.2458,P=0.1690,R=0.4504
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ZSL K=3 : f1=0.2814,P=0.2287,R=0.3656
ZSL classification finished time taken 105.41566777229309
[3/70] Loss_D: 0.5624 Loss_G: -0.1707, Loss_E: 2749.0593, Wasserstein_dist:
-0.0844
Generator 3th finished time taken 1094.5165104866028
torch.Size([306600, 1006])
GZSL: AP=0.0287
GZSL K=5 : f1=0.1845,P=0.2179,R=0.1601
GZSL K=3 : f1=0.1791,P=0.2927,R=0.1290
GZSL classification finished time taken 321.8730957508087
ZSL DATA torch.Size([85258, 81])
ZSL: AP=0.1180
ZSL K=5 : f1=0.2645,P=0.1819,R=0.4846
ZSL K=3 : f1=0.3088,P=0.2510,R=0.4013
ZSL classification finished time taken 97.39124488830566
LAST GZSL BEST EPOCH 3
GZSL: AP=0.0287
GZSL K=5 : f1=0.1845,P=0.2179,R=0.1601
GZSL K=3 : f1=0.1791,P=0.2927,R=0.1290
LAST ZSL BEST EPOCH 3
ZSL: AP=0.1180
ZSL K=5 : f1=0.2645,P=0.1819,R=0.4846
ZSL K=3 : f1=0.3088,P=0.2510,R=0.4013
[4/70] Loss_D: 0.9641 Loss_G: -0.2590, Loss_E: 2749.0279, Wasserstein_dist:
1.2649
Generator 4th finished time taken 1090.9052658081055
torch.Size([306600, 1006])
GZSL: AP=0.0285
GZSL K=5 : f1=0.1764,P=0.2083,R=0.1530
GZSL K=3 : f1=0.1802,P=0.2944,R=0.1298
GZSL classification finished time taken 330.2261908054352
ZSL DATA torch.Size([85584, 81])
ZSL: AP=0.1302
ZSL K=5 : f1=0.2521,P=0.1733,R=0.4619
ZSL K=3 : f1=0.2792,P=0.2269,R=0.3628
ZSL classification finished time taken 99.13198208808899
[5/70] Loss_D: 0.1270 Loss_G: -0.4689, Loss_E: 2748.8402, Wasserstein_dist:
0.7222
Generator 5th finished time taken 1103.3961589336395
torch.Size([306600, 1006])
GZSL: AP=0.0350
GZSL K=5 : f1=0.1620,P=0.1912,R=0.1405
GZSL K=3 : f1=0.1395,P=0.2279,R=0.1005
GZSL classification finished time taken 322.751580953598
ZSL DATA torch.Size([85777, 81])
ZSL: AP=0.1359

ZSL K=5 : f1=0.2674,P=0.1839,R=0.4900
ZSL K=3 : f1=0.3210,P=0.2609,R=0.4170
ZSL classification finished time taken 110.54140400886536
[6/70] Loss_D: 1.0151 Loss_G: -0.4557, Loss_E: 2748.6430, Wasserstein_dist:
0.9076
Generator 6th finished time taken 1050.8067302703857
torch.Size([306600, 1006])
GZSL: AP=0.0317
GZSL K=5 : f1=0.1721,P=0.2032,R=0.1493
GZSL K=3 : f1=0.1573,P=0.2570,R=0.1133
GZSL classification finished time taken 349.7687027454376
ZSL DATA torch.Size([85414, 81])
ZSL: AP=0.1414
ZSL K=5 : f1=0.2709,P=0.1863,R=0.4964
ZSL K=3 : f1=0.3105,P=0.2524,R=0.4035
ZSL classification finished time taken 102.92388343811035
LAST GZSL BEST EPOCH 3
GZSL: AP=0.0287
GZSL K=5 : f1=0.1845,P=0.2179,R=0.1601
GZSL K=3 : f1=0.1791,P=0.2927,R=0.1290
LAST ZSL BEST EPOCH 6
ZSL: AP=0.1414
ZSL K=5 : f1=0.2709,P=0.1863,R=0.4964
ZSL K=3 : f1=0.3105,P=0.2524,R=0.4035
[7/70] Loss_D: 1.0819 Loss_G: -0.4530, Loss_E: 2748.2914, Wasserstein_dist:
0.0571
Generator 7th finished time taken 1096.1519873142242
torch.Size([306600, 1006])
GZSL: AP=0.0374
GZSL K=5 : f1=0.1587,P=0.1874,R=0.1377
GZSL K=3 : f1=0.1344,P=0.2197,R=0.0968
GZSL classification finished time taken 331.0244257450104
ZSL DATA torch.Size([85512, 81])
ZSL: AP=0.1422
ZSL K=5 : f1=0.2557,P=0.1758,R=0.4685
ZSL K=3 : f1=0.2960,P=0.2406,R=0.3846
ZSL classification finished time taken 97.39399790763855
[8/70] Loss_D: 0.9015 Loss_G: -0.4347, Loss_E: 2748.4625, Wasserstein_dist:
0.0299
Generator 8th finished time taken 1106.2219035625458
torch.Size([306600, 1006])
GZSL: AP=0.0375
GZSL K=5 : f1=0.1547,P=0.1826,R=0.1342
GZSL K=3 : f1=0.1258,P=0.2055,R=0.0906
GZSL classification finished time taken 327.506005525589
ZSL DATA torch.Size([85570, 81])

ZSL: AP=0.1554
ZSL K=5 : f1=0.2430,P=0.1671,R=0.4453
ZSL K=3 : f1=0.2775,P=0.2255,R=0.3606
ZSL classification finished time taken 99.81190586090088
[9/70] Loss_D: 1.5509 Loss_G: -0.4145, Loss_E: 2748.4502, Wasserstein_dist:
0.2745
Generator 9th finished time taken 1081.086252450943
torch.Size([306600, 1006])
GZSL: AP=0.0393
GZSL K=5 : f1=0.1601,P=0.1890,R=0.1389
GZSL K=3 : f1=0.1389,P=0.2269,R=0.1000
GZSL classification finished time taken 329.10886693000793
ZSL DATA torch.Size([85278, 81])
ZSL: AP=0.1516
ZSL K=5 : f1=0.2621,P=0.1802,R=0.4802
ZSL K=3 : f1=0.3101,P=0.2520,R=0.4029
ZSL classification finished time taken 101.4206383228302
LAST GZSL BEST EPOCH 3
GZSL: AP=0.0287
GZSL K=5 : f1=0.1845,P=0.2179,R=0.1601
GZSL K=3 : f1=0.1791,P=0.2927,R=0.1290
LAST ZSL BEST EPOCH 9
ZSL: AP=0.1516
ZSL K=5 : f1=0.2621,P=0.1802,R=0.4802
ZSL K=3 : f1=0.3101,P=0.2520,R=0.4029
[10/70] Loss_D: 2.2026 Loss_G: -0.3800, Loss_E: 2748.3802, Wasserstein_dist:
0.1810
Generator 10th finished time taken 1080.7059524059296
torch.Size([306600, 1006])
GZSL: AP=0.0419
GZSL K=5 : f1=0.1642,P=0.1938,R=0.1424
GZSL K=3 : f1=0.1358,P=0.2220,R=0.0979
GZSL classification finished time taken 341.94779109954834
ZSL DATA torch.Size([85506, 81])
ZSL: AP=0.1596
ZSL K=5 : f1=0.2672,P=0.1837,R=0.4895
ZSL K=3 : f1=0.3100,P=0.2520,R=0.4029
ZSL classification finished time taken 97.49425745010376
[11/70] Loss_D: 2.0797 Loss_G: -0.2771, Loss_E: 2748.1479, Wasserstein_dist:
-0.0851
Generator 11th finished time taken 1105.8595931529999
torch.Size([306600, 1006])
GZSL: AP=0.0439
GZSL K=5 : f1=0.1796,P=0.2120,R=0.1558
GZSL K=3 : f1=0.1523,P=0.2488,R=0.1097
GZSL classification finished time taken 333.56054401397705

ZSL DATA torch.Size([84931, 81])
ZSL: AP=0.1637
ZSL K=5 : f1=0.2791,P=0.1919,R=0.5113
ZSL K=3 : f1=0.3158,P=0.2566,R=0.4103
ZSL classification finished time taken 108.6184332370758
[12/70] Loss_D: 2.3040 Loss_G: -0.1421, Loss_E: 2747.9683, Wasserstein_dist:
-0.3717
Generator 12th finished time taken 1065.2404689788818
torch.Size([306600, 1006])
GZSL: AP=0.0458
GZSL K=5 : f1=0.1751,P=0.2068,R=0.1519
GZSL K=3 : f1=0.1541,P=0.2519,R=0.1110
GZSL classification finished time taken 338.042617559433
ZSL DATA torch.Size([85465, 81])
ZSL: AP=0.1610
ZSL K=5 : f1=0.2825,P=0.1943,R=0.5177
ZSL K=3 : f1=0.3116,P=0.2533,R=0.4049
ZSL classification finished time taken 103.89910578727722
LAST GZSL BEST EPOCH 11
GZSL: AP=0.0439
GZSL K=5 : f1=0.1796,P=0.2120,R=0.1558
GZSL K=3 : f1=0.1523,P=0.2488,R=0.1097
LAST ZSL BEST EPOCH 12
ZSL: AP=0.1610
ZSL K=5 : f1=0.2825,P=0.1943,R=0.5177
ZSL K=3 : f1=0.3116,P=0.2533,R=0.4049
[13/70] Loss_D: 1.7954 Loss_G: -0.1653, Loss_E: 2747.9945, Wasserstein_dist:
-0.2786
Generator 13th finished time taken 1114.2941830158234
torch.Size([306600, 1006])
GZSL: AP=0.0418
GZSL K=5 : f1=0.1768,P=0.2087,R=0.1533
GZSL K=3 : f1=0.1620,P=0.2647,R=0.1167
GZSL classification finished time taken 313.39020228385925
ZSL DATA torch.Size([85336, 81])
ZSL: AP=0.1685
ZSL K=5 : f1=0.2661,P=0.1830,R=0.4876
ZSL K=3 : f1=0.3042,P=0.2472,R=0.3953
ZSL classification finished time taken 98.57182741165161
[14/70] Loss_D: 2.6453 Loss_G: -0.1922, Loss_E: 2747.9995, Wasserstein_dist:
0.2845
Generator 14th finished time taken 1093.7460706233978
torch.Size([306600, 1006])
GZSL: AP=0.0427
GZSL K=5 : f1=0.1813,P=0.2140,R=0.1573
GZSL K=3 : f1=0.1627,P=0.2659,R=0.1172

GZSL classification finished time taken 353.2767131328583
ZSL DATA torch.Size([85174, 81])
ZSL: AP=0.1747
ZSL K=5 : f1=0.2531,P=0.1741,R=0.4638
ZSL K=3 : f1=0.2855,P=0.2321,R=0.3710
ZSL classification finished time taken 113.12890481948853
[15/70] Loss_D: 2.7601 Loss_G: -0.1587, Loss_E: 2747.8527, Wasserstein_dist:
0.6529
Generator 15th finished time taken 1088.8676195144653
torch.Size([306600, 1006])
GZSL: AP=0.0400
GZSL K=5 : f1=0.1903,P=0.2246,R=0.1650
GZSL K=3 : f1=0.1851,P=0.3025,R=0.1334
GZSL classification finished time taken 325.43932008743286
ZSL DATA torch.Size([85079, 81])
ZSL: AP=0.1745
ZSL K=5 : f1=0.2757,P=0.1896,R=0.5053
ZSL K=3 : f1=0.2949,P=0.2397,R=0.3832
ZSL classification finished time taken 99.00109219551086
LAST GZSL BEST EPOCH 15
GZSL: AP=0.0400
GZSL K=5 : f1=0.1903,P=0.2246,R=0.1650
GZSL K=3 : f1=0.1851,P=0.3025,R=0.1334
LAST ZSL BEST EPOCH 15
ZSL: AP=0.1745
ZSL K=5 : f1=0.2757,P=0.1896,R=0.5053
ZSL K=3 : f1=0.2949,P=0.2397,R=0.3832
[16/70] Loss_D: 2.4780 Loss_G: -0.2377, Loss_E: 2747.7688, Wasserstein_dist:
-0.4397
Generator 16th finished time taken 1089.495110988617
torch.Size([306600, 1006])
GZSL: AP=0.0488
GZSL K=5 : f1=0.1759,P=0.2076,R=0.1525
GZSL K=3 : f1=0.1567,P=0.2561,R=0.1129
GZSL classification finished time taken 339.8317346572876
ZSL DATA torch.Size([85497, 81])
ZSL: AP=0.1768
ZSL K=5 : f1=0.2698,P=0.1855,R=0.4944
ZSL K=3 : f1=0.3023,P=0.2457,R=0.3928
ZSL classification finished time taken 119.67522239685059
[17/70] Loss_D: 2.4520 Loss_G: -0.1529, Loss_E: 2747.7642, Wasserstein_dist:
0.3422
Generator 17th finished time taken 1062.4776947498322
torch.Size([306600, 1006])
GZSL: AP=0.0490
GZSL K=5 : f1=0.1745,P=0.2060,R=0.1513

GZSL K=3 : f1=0.1584,P=0.2588,R=0.1141
GZSL classification finished time taken 331.1033411026001
ZSL DATA torch.Size([85278, 81])
ZSL: AP=0.1780
ZSL K=5 : f1=0.2649,P=0.1821,R=0.4853
ZSL K=3 : f1=0.2954,P=0.2401,R=0.3838
ZSL classification finished time taken 113.06215977668762
[18/70] Loss_D: 2.2806 Loss_G: -0.1635, Loss_E: 2747.6152, Wasserstein_dist:
0.5943
Generator 18th finished time taken 1076.7639479637146
torch.Size([306600, 1006])
GZSL: AP=0.0511
GZSL K=5 : f1=0.1702,P=0.2010,R=0.1477
GZSL K=3 : f1=0.1452,P=0.2373,R=0.1046
GZSL classification finished time taken 340.2192499637604
ZSL DATA torch.Size([84867, 81])
ZSL: AP=0.1799
ZSL K=5 : f1=0.2729,P=0.1877,R=0.5001
ZSL K=3 : f1=0.3146,P=0.2557,R=0.4088
ZSL classification finished time taken 110.7244143486023
LAST GZSL BEST EPOCH 15
GZSL: AP=0.0400
GZSL K=5 : f1=0.1903,P=0.2246,R=0.1650
GZSL K=3 : f1=0.1851,P=0.3025,R=0.1334
LAST ZSL BEST EPOCH 18
ZSL: AP=0.1799
ZSL K=5 : f1=0.2729,P=0.1877,R=0.5001
ZSL K=3 : f1=0.3146,P=0.2557,R=0.4088
[19/70] Loss_D: 2.5709 Loss_G: -0.2182, Loss_E: 2747.6928, Wasserstein_dist:
-0.6341
Generator 19th finished time taken 1055.966005563736
torch.Size([306600, 1006])
GZSL: AP=0.0488
GZSL K=5 : f1=0.1829,P=0.2159,R=0.1586
GZSL K=3 : f1=0.1620,P=0.2648,R=0.1167
GZSL classification finished time taken 334.8989248275757
ZSL DATA torch.Size([85358, 81])
ZSL: AP=0.1804
ZSL K=5 : f1=0.2725,P=0.1874,R=0.4994
ZSL K=3 : f1=0.2921,P=0.2374,R=0.3795
ZSL classification finished time taken 117.82464647293091
[20/70] Loss_D: 2.1809 Loss_G: -0.2398, Loss_E: 2747.4315, Wasserstein_dist:
0.0429
Generator 20th finished time taken 1092.9389078617096
torch.Size([306600, 1006])
GZSL: AP=0.0500

GZSL K=5 : f1=0.1861,P=0.2197,R=0.1614
GZSL K=3 : f1=0.1579,P=0.2580,R=0.1137
GZSL classification finished time taken 343.0962734222412
ZSL DATA torch.Size([85188, 81])
ZSL: AP=0.1826
ZSL K=5 : f1=0.2596,P=0.1785,R=0.4756
ZSL K=3 : f1=0.2899,P=0.2356,R=0.3767
ZSL classification finished time taken 118.25624203681946
[21/70] Loss_D: 2.2828 Loss_G: -0.2187, Loss_E: 2747.4575, Wasserstein_dist:
0.3018
Generator 21th finished time taken 1093.3594710826874
torch.Size([306600, 1006])
GZSL: AP=0.0496
GZSL K=5 : f1=0.1741,P=0.2055,R=0.1510
GZSL K=3 : f1=0.1500,P=0.2451,R=0.1081
GZSL classification finished time taken 335.61147809028625
ZSL DATA torch.Size([85771, 81])
ZSL: AP=0.1710
ZSL K=5 : f1=0.2707,P=0.1861,R=0.4960
ZSL K=3 : f1=0.3285,P=0.2670,R=0.4269
ZSL classification finished time taken 106.68372058868408
LAST GZSL BEST EPOCH 20
GZSL: AP=0.0500
GZSL K=5 : f1=0.1861,P=0.2197,R=0.1614
GZSL K=3 : f1=0.1579,P=0.2580,R=0.1137
LAST ZSL BEST EPOCH 19
ZSL: AP=0.1804
ZSL K=5 : f1=0.2725,P=0.1874,R=0.4994
ZSL K=3 : f1=0.2921,P=0.2374,R=0.3795
[22/70] Loss_D: 2.3050 Loss_G: -0.1193, Loss_E: 2747.4015, Wasserstein_dist:
-0.1320
Generator 22th finished time taken 1065.4799346923828
torch.Size([306600, 1006])
GZSL: AP=0.0508
GZSL K=5 : f1=0.1802,P=0.2127,R=0.1563
GZSL K=3 : f1=0.1604,P=0.2621,R=0.1155
GZSL classification finished time taken 326.79637932777405
ZSL DATA torch.Size([84946, 81])
ZSL: AP=0.1758
ZSL K=5 : f1=0.2827,P=0.1944,R=0.5179
ZSL K=3 : f1=0.3394,P=0.2758,R=0.4410
ZSL classification finished time taken 105.79375076293945
[23/70] Loss_D: 1.8440 Loss_G: -0.1368, Loss_E: 2747.1807, Wasserstein_dist:
-0.2777
Generator 23th finished time taken 1080.4132719039917
torch.Size([306600, 1006])

GZSL: AP=0.0473
GZSL K=5 : f1=0.1797,P=0.2122,R=0.1559
GZSL K=3 : f1=0.1585,P=0.2590,R=0.1142
GZSL classification finished time taken 328.23285698890686
ZSL DATA torch.Size([85128, 81])
ZSL: AP=0.1806
ZSL K=5 : f1=0.2706,P=0.1861,R=0.4958
ZSL K=3 : f1=0.3151,P=0.2561,R=0.4094
ZSL classification finished time taken 106.6340720653534
[24/70] Loss_D: 1.9757 Loss_G: -0.0711, Loss_E: 2747.3347, Wasserstein_dist:
-0.3067
Generator 24th finished time taken 1052.0402092933655
torch.Size([306600, 1006])
GZSL: AP=0.0505
GZSL K=5 : f1=0.1843,P=0.2176,R=0.1599
GZSL K=3 : f1=0.1588,P=0.2596,R=0.1144
GZSL classification finished time taken 324.32641887664795
ZSL DATA torch.Size([85244, 81])
ZSL: AP=0.1855
ZSL K=5 : f1=0.2707,P=0.1862,R=0.4961
ZSL K=3 : f1=0.3080,P=0.2504,R=0.4003
ZSL classification finished time taken 113.36653280258179
LAST GZSL BEST EPOCH 20
GZSL: AP=0.0500
GZSL K=5 : f1=0.1861,P=0.2197,R=0.1614
GZSL K=3 : f1=0.1579,P=0.2580,R=0.1137
LAST ZSL BEST EPOCH 22
ZSL: AP=0.1758
ZSL K=5 : f1=0.2827,P=0.1944,R=0.5179
ZSL K=3 : f1=0.3394,P=0.2758,R=0.4410
[25/70] Loss_D: 1.5385 Loss_G: -0.0601, Loss_E: 2747.2502, Wasserstein_dist:
0.5987
Generator 25th finished time taken 1088.5335793495178
torch.Size([306600, 1006])
GZSL: AP=0.0512
GZSL K=5 : f1=0.1749,P=0.2065,R=0.1517
GZSL K=3 : f1=0.1474,P=0.2409,R=0.1062
GZSL classification finished time taken 323.9136612415314
ZSL DATA torch.Size([85361, 81])
ZSL: AP=0.1854
ZSL K=5 : f1=0.2814,P=0.1935,R=0.5156
ZSL K=3 : f1=0.3020,P=0.2454,R=0.3924
ZSL classification finished time taken 114.07121133804321
[26/70] Loss_D: 1.6169 Loss_G: -0.1150, Loss_E: 2747.2588, Wasserstein_dist:
0.2163
Generator 26th finished time taken 1065.7781674861908

torch.Size([306600, 1006])
GZSL: AP=0.0496
GZSL K=5 : f1=0.1859,P=0.2195,R=0.1613
GZSL K=3 : f1=0.1686,P=0.2756,R=0.1215
GZSL classification finished time taken 340.98822474479675
ZSL DATA torch.Size([85514, 81])
ZSL: AP=0.1830
ZSL K=5 : f1=0.2669,P=0.1836,R=0.4891
ZSL K=3 : f1=0.2905,P=0.2361,R=0.3774
ZSL classification finished time taken 117.85983109474182
[27/70] Loss_D: 1.3912 Loss_G: 0.0204, Loss_E: 2747.0965, Wasserstein_dist:
0.0613
Generator 27th finished time taken 1082.4863040447235
torch.Size([306600, 1006])
GZSL: AP=0.0474
GZSL K=5 : f1=0.1770,P=0.2089,R=0.1535
GZSL K=3 : f1=0.1535,P=0.2509,R=0.1106
GZSL classification finished time taken 323.4109649658203
ZSL DATA torch.Size([85702, 81])
ZSL: AP=0.1781
ZSL K=5 : f1=0.2746,P=0.1888,R=0.5032
ZSL K=3 : f1=0.3246,P=0.2638,R=0.4218
ZSL classification finished time taken 115.39436841011047
LAST GZSL BEST EPOCH 20
GZSL: AP=0.0500
GZSL K=5 : f1=0.1861,P=0.2197,R=0.1614
GZSL K=3 : f1=0.1579,P=0.2580,R=0.1137
LAST ZSL BEST EPOCH 25
ZSL: AP=0.1854
ZSL K=5 : f1=0.2814,P=0.1935,R=0.5156
ZSL K=3 : f1=0.3020,P=0.2454,R=0.3924
[28/70] Loss_D: 1.1328 Loss_G: 0.0557, Loss_E: 2747.0659, Wasserstein_dist:
0.2994
Generator 28th finished time taken 1059.4420232772827
torch.Size([306600, 1006])
GZSL: AP=0.0532
GZSL K=5 : f1=0.1728,P=0.2040,R=0.1499
GZSL K=3 : f1=0.1509,P=0.2465,R=0.1087
GZSL classification finished time taken 348.99498224258423
ZSL DATA torch.Size([85579, 81])
ZSL: AP=0.1721
ZSL K=5 : f1=0.2816,P=0.1937,R=0.5160
ZSL K=3 : f1=0.3298,P=0.2680,R=0.4285
ZSL classification finished time taken 109.2327675819397
[29/70] Loss_D: 1.2370 Loss_G: -0.0248, Loss_E: 2747.0709, Wasserstein_dist:
1.0325

Generator 29th finished time taken 1056.565937757492
torch.Size([306600, 1006])
GZSL: AP=0.0535
GZSL K=5 : f1=0.1823,P=0.2153,R=0.1582
GZSL K=3 : f1=0.1630,P=0.2664,R=0.1174
GZSL classification finished time taken 315.40123176574707
ZSL DATA torch.Size([85458, 81])
ZSL: AP=0.1908
ZSL K=5 : f1=0.2604,P=0.1791,R=0.4771
ZSL K=3 : f1=0.2721,P=0.2211,R=0.3536
ZSL classification finished time taken 101.73669767379761
[30/70] Loss_D: 0.6417 Loss_G: -0.0350, Loss_E: 2747.0087, Wasserstein_dist:
1.1910
Generator 30th finished time taken 1100.2946512699127
torch.Size([306600, 1006])
GZSL: AP=0.0555
GZSL K=5 : f1=0.1738,P=0.2052,R=0.1508
GZSL K=3 : f1=0.1521,P=0.2485,R=0.1096
GZSL classification finished time taken 325.85951924324036
ZSL DATA torch.Size([85040, 81])
ZSL: AP=0.1869
ZSL K=5 : f1=0.2648,P=0.1821,R=0.4852
ZSL K=3 : f1=0.3009,P=0.2445,R=0.3910
ZSL classification finished time taken 106.74203538894653
LAST GZSL BEST EPOCH 20
GZSL: AP=0.0500
GZSL K=5 : f1=0.1861,P=0.2197,R=0.1614
GZSL K=3 : f1=0.1579,P=0.2580,R=0.1137
LAST ZSL BEST EPOCH 25
ZSL: AP=0.1854
ZSL K=5 : f1=0.2814,P=0.1935,R=0.5156
ZSL K=3 : f1=0.3020,P=0.2454,R=0.3924
[31/70] Loss_D: 0.9501 Loss_G: -0.0287, Loss_E: 2746.9656, Wasserstein_dist:
1.1954
Generator 31th finished time taken 1106.2497217655182
torch.Size([306600, 1006])
GZSL: AP=0.0500
GZSL K=5 : f1=0.1851,P=0.2185,R=0.1605
GZSL K=3 : f1=0.1663,P=0.2718,R=0.1198
GZSL classification finished time taken 312.14204835891724
ZSL DATA torch.Size([85194, 81])
ZSL: AP=0.1891
ZSL K=5 : f1=0.2654,P=0.1825,R=0.4862
ZSL K=3 : f1=0.3043,P=0.2473,R=0.3954
ZSL classification finished time taken 97.09622955322266
[32/70] Loss_D: 0.5596 Loss_G: -0.0399, Loss_E: 2747.0870, Wasserstein_dist:

-0.5569

Generator 32th finished time taken 1058.4335308074951

torch.Size([306600, 1006])

GZSL: AP=0.0527

GZSL K=5 : f1=0.1850,P=0.2183,R=0.1604

GZSL K=3 : f1=0.1637,P=0.2676,R=0.1180

GZSL classification finished time taken 328.97416138648987

ZSL DATA torch.Size([85533, 81])

ZSL: AP=0.1924

ZSL K=5 : f1=0.2639,P=0.1815,R=0.4836

ZSL K=3 : f1=0.2898,P=0.2356,R=0.3766

ZSL classification finished time taken 108.16120195388794

[33/70] Loss_D: 0.7136 Loss_G: -0.0529, Loss_E: 2746.9039, Wasserstein_dist:
-0.7197

Generator 33th finished time taken 1128.9140393733978

torch.Size([306600, 1006])

GZSL: AP=0.0541

GZSL K=5 : f1=0.1836,P=0.2167,R=0.1593

GZSL K=3 : f1=0.1627,P=0.2659,R=0.1172

GZSL classification finished time taken 324.3985245227814

ZSL DATA torch.Size([85321, 81])

ZSL: AP=0.1900

ZSL K=5 : f1=0.2756,P=0.1895,R=0.5050

ZSL K=3 : f1=0.3119,P=0.2535,R=0.4052

ZSL classification finished time taken 111.33162069320679

LAST GZSL BEST EPOCH 33

GZSL: AP=0.0541

GZSL K=5 : f1=0.1836,P=0.2167,R=0.1593

GZSL K=3 : f1=0.1627,P=0.2659,R=0.1172

LAST ZSL BEST EPOCH 25

ZSL: AP=0.1854

ZSL K=5 : f1=0.2814,P=0.1935,R=0.5156

ZSL K=3 : f1=0.3020,P=0.2454,R=0.3924

[34/70] Loss_D: 0.4762 Loss_G: -0.1014, Loss_E: 2747.0944, Wasserstein_dist:
0.1199

Generator 34th finished time taken 1073.7112348079681

torch.Size([306600, 1006])

GZSL: AP=0.0574

GZSL K=5 : f1=0.1916,P=0.2261,R=0.1662

GZSL K=3 : f1=0.1696,P=0.2771,R=0.1222

GZSL classification finished time taken 326.65879464149475

ZSL DATA torch.Size([85659, 81])

ZSL: AP=0.1978

ZSL K=5 : f1=0.2725,P=0.1874,R=0.4992

ZSL K=3 : f1=0.2967,P=0.2411,R=0.3855

ZSL classification finished time taken 109.33673691749573

[35/70] Loss_D: 0.4003 Loss_G: -0.0858, Loss_E: 2746.9513, Wasserstein_dist:
1.7792
Generator 35th finished time taken 1146.2711083889008
torch.Size([306600, 1006])
GZSL: AP=0.0571
GZSL K=5 : f1=0.1844,P=0.2177,R=0.1599
GZSL K=3 : f1=0.1625,P=0.2656,R=0.1171
GZSL classification finished time taken 317.9540343284607
ZSL DATA torch.Size([85533, 81])
ZSL: AP=0.1865
ZSL K=5 : f1=0.2848,P=0.1958,R=0.5218
ZSL K=3 : f1=0.3232,P=0.2626,R=0.4199
ZSL classification finished time taken 110.73014068603516
[36/70] Loss_D: 0.4862 Loss_G: -0.0659, Loss_E: 2746.8095, Wasserstein_dist:
0.7315
Generator 36th finished time taken 1047.800606250763
torch.Size([306600, 1006])
GZSL: AP=0.0568
GZSL K=5 : f1=0.1779,P=0.2101,R=0.1543
GZSL K=3 : f1=0.1537,P=0.2512,R=0.1107
GZSL classification finished time taken 333.8073036670685
ZSL DATA torch.Size([85437, 81])
ZSL: AP=0.1962
ZSL K=5 : f1=0.2746,P=0.1888,R=0.5031
ZSL K=3 : f1=0.3225,P=0.2621,R=0.4190
ZSL classification finished time taken 97.0254418849945
LAST GZSL BEST EPOCH 34
GZSL: AP=0.0574
GZSL K=5 : f1=0.1916,P=0.2261,R=0.1662
GZSL K=3 : f1=0.1696,P=0.2771,R=0.1222
LAST ZSL BEST EPOCH 35
ZSL: AP=0.1865
ZSL K=5 : f1=0.2848,P=0.1958,R=0.5218
ZSL K=3 : f1=0.3232,P=0.2626,R=0.4199
[37/70] Loss_D: 0.0487 Loss_G: -0.1404, Loss_E: 2746.8432, Wasserstein_dist:
0.4717
Generator 37th finished time taken 1077.2461807727814
torch.Size([306600, 1006])
GZSL: AP=0.0579
GZSL K=5 : f1=0.1757,P=0.2075,R=0.1524
GZSL K=3 : f1=0.1515,P=0.2476,R=0.1092
GZSL classification finished time taken 335.0621440410614
ZSL DATA torch.Size([85289, 81])
ZSL: AP=0.1960
ZSL K=5 : f1=0.2651,P=0.1823,R=0.4858
ZSL K=3 : f1=0.2991,P=0.2431,R=0.3886

ZSL classification finished time taken 104.30278158187866
[38/70] Loss_D: 0.2097 Loss_G: -0.0460, Loss_E: 2746.8839, Wasserstein_dist:
-0.0576
Generator 38th finished time taken 1082.8036890029907
torch.Size([306600, 1006])
GZSL: AP=0.0580
GZSL K=5 : f1=0.1785,P=0.2107,R=0.1548
GZSL K=3 : f1=0.1525,P=0.2493,R=0.1099
GZSL classification finished time taken 333.4393615722656
ZSL DATA torch.Size([85477, 81])
ZSL: AP=0.1936
ZSL K=5 : f1=0.2859,P=0.1966,R=0.5239
ZSL K=3 : f1=0.3232,P=0.2627,R=0.4199
ZSL classification finished time taken 111.4840099811554
[39/70] Loss_D: 0.2316 Loss_G: -0.0944, Loss_E: 2746.7225, Wasserstein_dist:
0.4910
Generator 39th finished time taken 1076.9522960186005
torch.Size([306600, 1006])
GZSL: AP=0.0595
GZSL K=5 : f1=0.1748,P=0.2064,R=0.1516
GZSL K=3 : f1=0.1487,P=0.2429,R=0.1071
GZSL classification finished time taken 334.3455674648285
ZSL DATA torch.Size([84828, 81])
ZSL: AP=0.1876
ZSL K=5 : f1=0.2749,P=0.1890,R=0.5037
ZSL K=3 : f1=0.2964,P=0.2409,R=0.3852
ZSL classification finished time taken 106.63131546974182
LAST GZSL BEST EPOCH 34
GZSL: AP=0.0574
GZSL K=5 : f1=0.1916,P=0.2261,R=0.1662
GZSL K=3 : f1=0.1696,P=0.2771,R=0.1222
LAST ZSL BEST EPOCH 38
ZSL: AP=0.1936
ZSL K=5 : f1=0.2859,P=0.1966,R=0.5239
ZSL K=3 : f1=0.3232,P=0.2627,R=0.4199
[40/70] Loss_D: 0.2772 Loss_G: -0.0612, Loss_E: 2746.7306, Wasserstein_dist:
0.1391
Generator 40th finished time taken 1068.9677698612213
torch.Size([306600, 1006])
GZSL: AP=0.0576
GZSL K=5 : f1=0.1810,P=0.2137,R=0.1570
GZSL K=3 : f1=0.1604,P=0.2621,R=0.1156
GZSL classification finished time taken 348.10777020454407
ZSL DATA torch.Size([85391, 81])
ZSL: AP=0.1916
ZSL K=5 : f1=0.2664,P=0.1832,R=0.4881

ZSL K=3 : f1=0.2889,P=0.2348,R=0.3754
ZSL classification finished time taken 121.32959985733032
[41/70] Loss_D: 0.5271 Loss_G: -0.0701, Loss_E: 2746.5975, Wasserstein_dist:
-0.1579
Generator 41th finished time taken 1062.0798063278198
torch.Size([306600, 1006])
GZSL: AP=0.0591
GZSL K=5 : f1=0.1742,P=0.2056,R=0.1511
GZSL K=3 : f1=0.1471,P=0.2404,R=0.1060
GZSL classification finished time taken 339.0506978034973
ZSL DATA torch.Size([85529, 81])
ZSL: AP=0.1968
ZSL K=5 : f1=0.2635,P=0.1812,R=0.4827
ZSL K=3 : f1=0.2855,P=0.2321,R=0.3710
ZSL classification finished time taken 116.86867046356201
[42/70] Loss_D: 0.5337 Loss_G: -0.0358, Loss_E: 2746.7423, Wasserstein_dist:
-0.4186
Generator 42th finished time taken 1075.295110464096
torch.Size([306600, 1006])
GZSL: AP=0.0565
GZSL K=5 : f1=0.1900,P=0.2243,R=0.1648
GZSL K=3 : f1=0.1619,P=0.2646,R=0.1166
GZSL classification finished time taken 351.12781262397766
ZSL DATA torch.Size([85066, 81])
ZSL: AP=0.1909
ZSL K=5 : f1=0.2851,P=0.1961,R=0.5225
ZSL K=3 : f1=0.3231,P=0.2626,R=0.4199
ZSL classification finished time taken 98.22119307518005
LAST GZSL BEST EPOCH 34
GZSL: AP=0.0574
GZSL K=5 : f1=0.1916,P=0.2261,R=0.1662
GZSL K=3 : f1=0.1696,P=0.2771,R=0.1222
LAST ZSL BEST EPOCH 38
ZSL: AP=0.1936
ZSL K=5 : f1=0.2859,P=0.1966,R=0.5239
ZSL K=3 : f1=0.3232,P=0.2627,R=0.4199
[43/70] Loss_D: 0.6436 Loss_G: -0.0256, Loss_E: 2746.6670, Wasserstein_dist:
0.2443
Generator 43th finished time taken 1096.5068171024323
torch.Size([306600, 1006])
GZSL: AP=0.0602
GZSL K=5 : f1=0.1847,P=0.2181,R=0.1602
GZSL K=3 : f1=0.1586,P=0.2592,R=0.1143
GZSL classification finished time taken 307.78075218200684
ZSL DATA torch.Size([84762, 81])
ZSL: AP=0.1975

ZSL K=5 : f1=0.2796,P=0.1923,R=0.5123
ZSL K=3 : f1=0.3216,P=0.2614,R=0.4179
ZSL classification finished time taken 102.63223004341125
[44/70] Loss_D: 0.4362 Loss_G: -0.0534, Loss_E: 2746.6725, Wasserstein_dist:
0.2515
Generator 44th finished time taken 1128.7812552452087
torch.Size([306600, 1006])
GZSL: AP=0.0599
GZSL K=5 : f1=0.1800,P=0.2125,R=0.1562
GZSL K=3 : f1=0.1566,P=0.2560,R=0.1129
GZSL classification finished time taken 307.25682497024536
ZSL DATA torch.Size([86035, 81])
ZSL: AP=0.1994
ZSL K=5 : f1=0.2714,P=0.1866,R=0.4973
ZSL K=3 : f1=0.3114,P=0.2531,R=0.4046
ZSL classification finished time taken 104.3258786201477
[45/70] Loss_D: 0.3573 Loss_G: -0.0054, Loss_E: 2746.5702, Wasserstein_dist:
0.2407
Generator 45th finished time taken 1121.6757380962372
torch.Size([306600, 1006])
GZSL: AP=0.0536
GZSL K=5 : f1=0.1951,P=0.2303,R=0.1692
GZSL K=3 : f1=0.1754,P=0.2866,R=0.1263
GZSL classification finished time taken 315.66187620162964
ZSL DATA torch.Size([85368, 81])
ZSL: AP=0.1976
ZSL K=5 : f1=0.2750,P=0.1891,R=0.5039
ZSL K=3 : f1=0.3111,P=0.2529,R=0.4043
ZSL classification finished time taken 97.51028203964233
LAST GZSL BEST EPOCH 34
GZSL: AP=0.0574
GZSL K=5 : f1=0.1916,P=0.2261,R=0.1662
GZSL K=3 : f1=0.1696,P=0.2771,R=0.1222
LAST ZSL BEST EPOCH 38
ZSL: AP=0.1936
ZSL K=5 : f1=0.2859,P=0.1966,R=0.5239
ZSL K=3 : f1=0.3232,P=0.2627,R=0.4199
[46/70] Loss_D: 0.3893 Loss_G: -0.0194, Loss_E: 2746.5717, Wasserstein_dist:
-0.4156
Generator 46th finished time taken 1071.762273311615
torch.Size([306600, 1006])
GZSL: AP=0.0609
GZSL K=5 : f1=0.1830,P=0.2160,R=0.1587
GZSL K=3 : f1=0.1569,P=0.2565,R=0.1131
GZSL classification finished time taken 344.3716678619385
ZSL DATA torch.Size([85743, 81])

ZSL: AP=0.1966
ZSL K=5 : f1=0.2786,P=0.1916,R=0.5106
ZSL K=3 : f1=0.3155,P=0.2565,R=0.4100
ZSL classification finished time taken 104.53202891349792
[47/70] Loss_D: 0.2918 Loss_G: 0.0430, Loss_E: 2746.4819, Wasserstein_dist:
1.7153
Generator 47th finished time taken 1060.7354249954224
torch.Size([306600, 1006])
GZSL: AP=0.0612
GZSL K=5 : f1=0.1782,P=0.2104,R=0.1546
GZSL K=3 : f1=0.1526,P=0.2494,R=0.1100
GZSL classification finished time taken 326.01810216903687
ZSL DATA torch.Size([85287, 81])
ZSL: AP=0.2022
ZSL K=5 : f1=0.2678,P=0.1841,R=0.4907
ZSL K=3 : f1=0.2984,P=0.2425,R=0.3877
ZSL classification finished time taken 106.54305720329285
[48/70] Loss_D: 0.3640 Loss_G: -0.0395, Loss_E: 2746.5741, Wasserstein_dist:
-0.4084
Generator 48th finished time taken 1073.0457587242126
torch.Size([306600, 1006])
GZSL: AP=0.0617
GZSL K=5 : f1=0.1804,P=0.2129,R=0.1564
GZSL K=3 : f1=0.1519,P=0.2482,R=0.1094
GZSL classification finished time taken 345.6375632286072
ZSL DATA torch.Size([85419, 81])
ZSL: AP=0.2031
ZSL K=5 : f1=0.2741,P=0.1885,R=0.5022
ZSL K=3 : f1=0.3111,P=0.2528,R=0.4042
ZSL classification finished time taken 101.15808153152466
LAST GZSL BEST EPOCH 34
GZSL: AP=0.0574
GZSL K=5 : f1=0.1916,P=0.2261,R=0.1662
GZSL K=3 : f1=0.1696,P=0.2771,R=0.1222
LAST ZSL BEST EPOCH 38
ZSL: AP=0.1936
ZSL K=5 : f1=0.2859,P=0.1966,R=0.5239
ZSL K=3 : f1=0.3232,P=0.2627,R=0.4199
[49/70] Loss_D: 0.2770 Loss_G: -0.1066, Loss_E: 2746.4403, Wasserstein_dist:
2.1301
Generator 49th finished time taken 1073.5094201564789
torch.Size([306600, 1006])
GZSL: AP=0.0566
GZSL K=5 : f1=0.1914,P=0.2259,R=0.1660
GZSL K=3 : f1=0.1697,P=0.2773,R=0.1222
GZSL classification finished time taken 318.257595539093

ZSL DATA torch.Size([84869, 81])
ZSL: AP=0.1989
ZSL K=5 : f1=0.2733,P=0.1880,R=0.5008
ZSL K=3 : f1=0.3168,P=0.2575,R=0.4117
ZSL classification finished time taken 105.07019567489624
[50/70] Loss_D: 0.3467 Loss_G: -0.0152, Loss_E: 2746.6128, Wasserstein_dist:
0.6972
Generator 50th finished time taken 1109.53720164299
torch.Size([306600, 1006])
GZSL: AP=0.0584
GZSL K=5 : f1=0.1860,P=0.2196,R=0.1614
GZSL K=3 : f1=0.1588,P=0.2595,R=0.1144
GZSL classification finished time taken 337.83656454086304
ZSL DATA torch.Size([85646, 81])
ZSL: AP=0.2029
ZSL K=5 : f1=0.2836,P=0.1950,R=0.5197
ZSL K=3 : f1=0.3161,P=0.2569,R=0.4107
ZSL classification finished time taken 118.60641503334045
[51/70] Loss_D: 0.3872 Loss_G: 0.0328, Loss_E: 2746.4687, Wasserstein_dist:
0.4942
Generator 51th finished time taken 1051.828849554062
torch.Size([306600, 1006])
GZSL: AP=0.0602
GZSL K=5 : f1=0.1918,P=0.2264,R=0.1664
GZSL K=3 : f1=0.1671,P=0.2730,R=0.1203
GZSL classification finished time taken 332.8560812473297
ZSL DATA torch.Size([85445, 81])
ZSL: AP=0.1972
ZSL K=5 : f1=0.2690,P=0.1850,R=0.4929
ZSL K=3 : f1=0.3010,P=0.2447,R=0.3912
ZSL classification finished time taken 106.1702971458435
LAST GZSL BEST EPOCH 51
GZSL: AP=0.0602
GZSL K=5 : f1=0.1918,P=0.2264,R=0.1664
GZSL K=3 : f1=0.1671,P=0.2730,R=0.1203
LAST ZSL BEST EPOCH 50
ZSL: AP=0.2029
ZSL K=5 : f1=0.2836,P=0.1950,R=0.5197
ZSL K=3 : f1=0.3161,P=0.2569,R=0.4107
[52/70] Loss_D: 0.1723 Loss_G: -0.0506, Loss_E: 2746.4364, Wasserstein_dist:
0.7531
Generator 52th finished time taken 1080.9736301898956
torch.Size([306600, 1006])
GZSL: AP=0.0638
GZSL K=5 : f1=0.1833,P=0.2163,R=0.1590
GZSL K=3 : f1=0.1562,P=0.2553,R=0.1125

GZSL classification finished time taken 322.4479205608368
ZSL DATA torch.Size([85318, 81])
ZSL: AP=0.2011
ZSL K=5 : f1=0.2840,P=0.1953,R=0.5203
ZSL K=3 : f1=0.3075,P=0.2499,R=0.3996
ZSL classification finished time taken 102.01194834709167
[53/70] Loss_D: 0.4458 Loss_G: -0.0221, Loss_E: 2746.4578, Wasserstein_dist:
0.5083
Generator 53th finished time taken 1077.1732730865479
torch.Size([306600, 1006])
GZSL: AP=0.0606
GZSL K=5 : f1=0.1824,P=0.2153,R=0.1582
GZSL K=3 : f1=0.1537,P=0.2512,R=0.1107
GZSL classification finished time taken 321.34405755996704
ZSL DATA torch.Size([85245, 81])
ZSL: AP=0.1987
ZSL K=5 : f1=0.2777,P=0.1910,R=0.5088
ZSL K=3 : f1=0.3200,P=0.2601,R=0.4159
ZSL classification finished time taken 117.18707132339478
[54/70] Loss_D: 0.4536 Loss_G: -0.0368, Loss_E: 2746.4850, Wasserstein_dist:
1.2115
Generator 54th finished time taken 1069.507889509201
torch.Size([306600, 1006])
GZSL: AP=0.0626
GZSL K=5 : f1=0.1855,P=0.2190,R=0.1609
GZSL K=3 : f1=0.1598,P=0.2612,R=0.1151
GZSL classification finished time taken 349.05178022384644
ZSL DATA torch.Size([85496, 81])
ZSL: AP=0.2000
ZSL K=5 : f1=0.2797,P=0.1923,R=0.5124
ZSL K=3 : f1=0.3231,P=0.2626,R=0.4199
ZSL classification finished time taken 102.2836377620697
LAST GZSL BEST EPOCH 51
GZSL: AP=0.0602
GZSL K=5 : f1=0.1918,P=0.2264,R=0.1664
GZSL K=3 : f1=0.1671,P=0.2730,R=0.1203
LAST ZSL BEST EPOCH 50
ZSL: AP=0.2029
ZSL K=5 : f1=0.2836,P=0.1950,R=0.5197
ZSL K=3 : f1=0.3161,P=0.2569,R=0.4107
[55/70] Loss_D: 0.4145 Loss_G: -0.0302, Loss_E: 2746.4466, Wasserstein_dist:
0.7595
Generator 55th finished time taken 1088.5031406879425
torch.Size([306600, 1006])
GZSL: AP=0.0562
GZSL K=5 : f1=0.1889,P=0.2231,R=0.1639

GZSL K=3 : f1=0.1636,P=0.2674,R=0.1179
GZSL classification finished time taken 329.2308723926544
ZSL DATA torch.Size([85231, 81])
ZSL: AP=0.2053
ZSL K=5 : f1=0.2764,P=0.1900,R=0.5064
ZSL K=3 : f1=0.3069,P=0.2494,R=0.3987
ZSL classification finished time taken 102.07321882247925
[56/70] Loss_D: 0.2433 Loss_G: -0.0447, Loss_E: 2746.4599, Wasserstein_dist:
0.4218
Generator 56th finished time taken 1109.5418815612793
torch.Size([306600, 1006])
GZSL: AP=0.0629
GZSL K=5 : f1=0.1832,P=0.2163,R=0.1589
GZSL K=3 : f1=0.1570,P=0.2565,R=0.1131
GZSL classification finished time taken 310.28203201293945
ZSL DATA torch.Size([85061, 81])
ZSL: AP=0.2084
ZSL K=5 : f1=0.2799,P=0.1925,R=0.5129
ZSL K=3 : f1=0.3168,P=0.2575,R=0.4117
ZSL classification finished time taken 95.74528527259827
[57/70] Loss_D: 0.2782 Loss_G: 0.0117, Loss_E: 2746.3966, Wasserstein_dist:
-0.8603
Generator 57th finished time taken 1076.4865283966064
torch.Size([306600, 1006])
GZSL: AP=0.0606
GZSL K=5 : f1=0.1824,P=0.2154,R=0.1582
GZSL K=3 : f1=0.1530,P=0.2501,R=0.1102
GZSL classification finished time taken 337.5430006980896
ZSL DATA torch.Size([85185, 81])
ZSL: AP=0.2021
ZSL K=5 : f1=0.2780,P=0.1911,R=0.5093
ZSL K=3 : f1=0.3299,P=0.2681,R=0.4287
ZSL classification finished time taken 119.0699188709259
LAST GZSL BEST EPOCH 51
GZSL: AP=0.0602
GZSL K=5 : f1=0.1918,P=0.2264,R=0.1664
GZSL K=3 : f1=0.1671,P=0.2730,R=0.1203
LAST ZSL BEST EPOCH 56
ZSL: AP=0.2084
ZSL K=5 : f1=0.2799,P=0.1925,R=0.5129
ZSL K=3 : f1=0.3168,P=0.2575,R=0.4117
[58/70] Loss_D: 0.0464 Loss_G: -0.0066, Loss_E: 2746.0574, Wasserstein_dist:
-0.5895
Generator 58th finished time taken 1056.016746044159
torch.Size([306600, 1006])
GZSL: AP=0.0621

GZSL K=5 : f1=0.1887,P=0.2228,R=0.1637
GZSL K=3 : f1=0.1637,P=0.2676,R=0.1180
GZSL classification finished time taken 337.83054065704346
ZSL DATA torch.Size([85553, 81])
ZSL: AP=0.2023
ZSL K=5 : f1=0.3023,P=0.2078,R=0.5538
ZSL K=3 : f1=0.3444,P=0.2799,R=0.4475
ZSL classification finished time taken 103.64054679870605
[59/70] Loss_D: 0.2163 Loss_G: -0.0939, Loss_E: 2746.3348, Wasserstein_dist:
0.1016
Generator 59th finished time taken 1077.0240862369537
torch.Size([306600, 1006])
GZSL: AP=0.0638
GZSL K=5 : f1=0.1856,P=0.2191,R=0.1610
GZSL K=3 : f1=0.1600,P=0.2615,R=0.1153
GZSL classification finished time taken 332.11790919303894
ZSL DATA torch.Size([85021, 81])
ZSL: AP=0.2043
ZSL K=5 : f1=0.2735,P=0.1880,R=0.5010
ZSL K=3 : f1=0.3014,P=0.2449,R=0.3916
ZSL classification finished time taken 112.1409044265747
[60/70] Loss_D: 0.2130 Loss_G: -0.1291, Loss_E: 2746.2109, Wasserstein_dist:
0.7788
Generator 60th finished time taken 1054.3728296756744
torch.Size([306600, 1006])
GZSL: AP=0.0634
GZSL K=5 : f1=0.1901,P=0.2244,R=0.1649
GZSL K=3 : f1=0.1632,P=0.2666,R=0.1175
GZSL classification finished time taken 335.5002086162567
ZSL DATA torch.Size([85396, 81])
ZSL: AP=0.2002
ZSL K=5 : f1=0.2822,P=0.1940,R=0.5170
ZSL K=3 : f1=0.3171,P=0.2577,R=0.4121
ZSL classification finished time taken 100.87599754333496
LAST GZSL BEST EPOCH 60
GZSL: AP=0.0634
GZSL K=5 : f1=0.1901,P=0.2244,R=0.1649
GZSL K=3 : f1=0.1632,P=0.2666,R=0.1175
LAST ZSL BEST EPOCH 58
ZSL: AP=0.2023
ZSL K=5 : f1=0.3023,P=0.2078,R=0.5538
ZSL K=3 : f1=0.3444,P=0.2799,R=0.4475
[61/70] Loss_D: 0.2447 Loss_G: -0.0327, Loss_E: 2746.2035, Wasserstein_dist:
0.0581
Generator 61th finished time taken 1049.1662561893463
torch.Size([306600, 1006])

GZSL: AP=0.0655
GZSL K=5 : f1=0.1861,P=0.2197,R=0.1614
GZSL K=3 : f1=0.1602,P=0.2619,R=0.1154
GZSL classification finished time taken 326.5311770439148
ZSL DATA torch.Size([85379, 81])
ZSL: AP=0.2048
ZSL K=5 : f1=0.2779,P=0.1911,R=0.5091
ZSL K=3 : f1=0.3121,P=0.2536,R=0.4055
ZSL classification finished time taken 102.72161912918091
[62/70] Loss_D: 0.0761 Loss_G: 0.0177, Loss_E: 2746.1657, Wasserstein_dist:
0.3353
Generator 62th finished time taken 1122.064762353897
torch.Size([306600, 1006])
GZSL: AP=0.0652
GZSL K=5 : f1=0.1883,P=0.2222,R=0.1633
GZSL K=3 : f1=0.1609,P=0.2629,R=0.1159
GZSL classification finished time taken 334.8277726173401
ZSL DATA torch.Size([85820, 81])
ZSL: AP=0.2031
ZSL K=5 : f1=0.2930,P=0.2015,R=0.5369
ZSL K=3 : f1=0.3359,P=0.2730,R=0.4365
ZSL classification finished time taken 111.56639385223389
[63/70] Loss_D: 0.2000 Loss_G: 0.0085, Loss_E: 2746.1898, Wasserstein_dist:
0.8451
Generator 63th finished time taken 1078.0942034721375
torch.Size([306600, 1006])
GZSL: AP=0.0660
GZSL K=5 : f1=0.1792,P=0.2115,R=0.1554
GZSL K=3 : f1=0.1527,P=0.2496,R=0.1100
GZSL classification finished time taken 334.6227135658264
ZSL DATA torch.Size([85049, 81])
ZSL: AP=0.2092
ZSL K=5 : f1=0.2794,P=0.1921,R=0.5120
ZSL K=3 : f1=0.3125,P=0.2540,R=0.4061
ZSL classification finished time taken 112.00227689743042
LAST GZSL BEST EPOCH 60
GZSL: AP=0.0634
GZSL K=5 : f1=0.1901,P=0.2244,R=0.1649
GZSL K=3 : f1=0.1632,P=0.2666,R=0.1175
LAST ZSL BEST EPOCH 58
ZSL: AP=0.2023
ZSL K=5 : f1=0.3023,P=0.2078,R=0.5538
ZSL K=3 : f1=0.3444,P=0.2799,R=0.4475
[64/70] Loss_D: 0.1588 Loss_G: 0.0172, Loss_E: 2746.1657, Wasserstein_dist:
0.6108
Generator 64th finished time taken 1090.3074779510498

torch.Size([306600, 1006])
GZSL: AP=0.0663
GZSL K=5 : f1=0.1885,P=0.2225,R=0.1635
GZSL K=3 : f1=0.1621,P=0.2650,R=0.1168
GZSL classification finished time taken 334.261914730072
ZSL DATA torch.Size([85836, 81])
ZSL: AP=0.2059
ZSL K=5 : f1=0.2759,P=0.1897,R=0.5056
ZSL K=3 : f1=0.3025,P=0.2459,R=0.3931
ZSL classification finished time taken 110.78521275520325
[65/70] Loss_D: 0.1443 Loss_G: 0.1176, Loss_E: 2746.2205, Wasserstein_dist:
0.6667
Generator 65th finished time taken 1055.5102314949036
torch.Size([306600, 1006])
GZSL: AP=0.0655
GZSL K=5 : f1=0.1849,P=0.2182,R=0.1603
GZSL K=3 : f1=0.1605,P=0.2623,R=0.1156
GZSL classification finished time taken 330.0313904285431
ZSL DATA torch.Size([85153, 81])
ZSL: AP=0.2078
ZSL K=5 : f1=0.2864,P=0.1970,R=0.5248
ZSL K=3 : f1=0.3262,P=0.2651,R=0.4239
ZSL classification finished time taken 106.50400447845459
[66/70] Loss_D: 0.2869 Loss_G: 0.1030, Loss_E: 2746.1535, Wasserstein_dist:
-0.1150
Generator 66th finished time taken 1077.686737537384
torch.Size([306600, 1006])
GZSL: AP=0.0665
GZSL K=5 : f1=0.1912,P=0.2257,R=0.1658
GZSL K=3 : f1=0.1655,P=0.2705,R=0.1193
GZSL classification finished time taken 327.0059907436371
ZSL DATA torch.Size([85608, 81])
ZSL: AP=0.1926
ZSL K=5 : f1=0.2955,P=0.2032,R=0.5414
ZSL K=3 : f1=0.3456,P=0.2809,R=0.4491
ZSL classification finished time taken 102.8389298915863
LAST GZSL BEST EPOCH 66
GZSL: AP=0.0665
GZSL K=5 : f1=0.1912,P=0.2257,R=0.1658
GZSL K=3 : f1=0.1655,P=0.2705,R=0.1193
LAST ZSL BEST EPOCH 58
ZSL: AP=0.2023
ZSL K=5 : f1=0.3023,P=0.2078,R=0.5538
ZSL K=3 : f1=0.3444,P=0.2799,R=0.4475
[67/70] Loss_D: 0.2458 Loss_G: 0.0022, Loss_E: 2746.1976, Wasserstein_dist:
0.4180

Generator 67th finished time taken 1071.3381261825562
torch.Size([306600, 1006])
GZSL: AP=0.0642
GZSL K=5 : f1=0.1962,P=0.2317,R=0.1702
GZSL K=3 : f1=0.1750,P=0.2860,R=0.1261
GZSL classification finished time taken 326.60769867897034
ZSL DATA torch.Size([85377, 81])
ZSL: AP=0.2109
ZSL K=5 : f1=0.2956,P=0.2033,R=0.5417
ZSL K=3 : f1=0.3425,P=0.2783,R=0.4450
ZSL classification finished time taken 106.43185615539551