**1)**

**Attribute Evaluator: CFsSubsetEval**

**Search Method : BestFit**

**Using full training set**

**Output:**

**Selected attributes: 1,4,10,12,63,68,78 : 7**

**0.0**

**3.0**

**9.0**

**11.0**

**62.0**

**67.0**

**77.0**

**2)**

**Attribute Evaluator: CorrelationAttributeEval**

**Search Method : Ranker**

**Using full training set**

**=== Attribute Selection on all input data ===**

**Search Method:**

**Attribute ranking.**

**Attribute Evaluator (supervised, Class (numeric): 83 82.0):**

**Correlation Ranking Filter**

**Ranked attributes:**

**0.7855 68 67.0**

**0.7822 73 72.0**

**0.7712 69 68.0**

**0.7684 75 74.0**

**0.7569 36 35.0**

**0.7512 4 3.0**

**0.7379 5 4.0**

**0.7217 37 36.0**

**0.7173 67 66.0**

**0.7135 70 69.0**

**0.7113 72 71.0**

**0.7079 71 70.0**

**0.7071 39 38.0**

**0.7043 66 65.0**

**0.7031 35 34.0**

**0.6983 21 20.0**

**0.6914 64 63.0**

**0.6857 65 64.0**

**0.6831 74 73.0**

**0.6767 38 37.0**

**0.6745 46 45.0**

**0.6653 49 48.0**

**0.6535 78 77.0**

**0.6485 45 44.0**

**0.5885 47 46.0**

**0.5576 6 5.0**

**0.5544 56 55.0**

**0.4914 41 40.0**

**0.4899 48 47.0**

**0.4845 55 54.0**

**0.4801 57 56.0**

**0.4686 76 75.0**

**0.466 40 39.0**

**0.4313 77 76.0**

**0.4059 42 41.0**

**0.3147 10 9.0**

**0.3141 12 11.0**

**0.3003 1 0.0**

**0.2846 8 7.0**

**0.2718 80 79.0**

**0.2539 82 81.0**

**0.2062 13 12.0**

**0.2044 7 6.0**

**0.1892 2 1.0**

**0.1854 9 8.0**

**0.1693 11 10.0**

**0.0746 14 13.0**

**0.0723 3 2.0**

**0.0605 79 78.0**

**0.0274 81 80.0**

**0 19 18.0**

**0 20 19.0**

**0 16 15.0**

**0 17 16.0**

**0 62 61.0**

**0 15 14.0**

**0 61 60.0**

**0 43 42.0**

**0 60 59.0**

**0 44 43.0**

**0 23 22.0**

**0 58 57.0**

**0 59 58.0**

**0 24 23.0**

**0 54 53.0**

**0 53 52.0**

**0 52 51.0**

**0 51 50.0**

**0 50 49.0**

**0 34 33.0**

**0 33 32.0**

**0 32 31.0**

**0 26 25.0**

**0 25 24.0**

**0 31 30.0**

**0 27 26.0**

**0 22 21.0**

**0 28 27.0**

**0 30 29.0**

**0 29 28.0**

**-0.0427 18 17.0**

**-0.1393 63 62.0**

**Selected attributes: 68,73,69,75,36,4,5,37,67,70,72,71,39,66,35,21,64,65,74,38,46,49,78,45,47,6,56,41,48,55,57,76,40,77,42,10,12,1,8,80,82,13,7,2,9,11,14,3,79,81,19,20,16,17,62,15,61,43,60,44,23,58,59,24,54,53,52,51,50,34,33,32,26,25,31,27,22,28,30,29,18,63 : 82**

**3)**

**Attribute Evaluator: PrincipalComponent**

**Search Method : Ranker**

**Using full training set**

**=== Attribute Selection on all input data ===**

**Search Method:**

**Attribute ranking.**

**Attribute Evaluator (unsupervised):**

**Principal Components Attribute Transformer**

**Correlation matrix**

**1 0.82 0.87 0.29 0.33 0.22 0.76 0.87 0.8 0.79 0.86 0.99 0.86 0.89 -0.19 0.23 0.3 0.39 0.47 0.26 0.52 0.31 0.02 0.04 0.47 0.47 0.28 0.31 0.5 0.43 0.46 0.44 -0.21 0.47 0.48 0.47 0.43 0.36 0.47 0.48 0.49 0.49 0.43 0.51 0.41 0.44 0.32 0.47 0.48 0.48 0.42 0.51**

**0.82 1 0.92 0.19 0.25 0.15 0.97 0.84 0.98 0.66 0.99 0.76 1 0.9 -0.2 0.15 0.22 0.27 0.38 0.17 0.43 0.23 -0 0.02 0.39 0.39 0.19 0.28 0.42 0.49 0.43 0.47 -0.19 0.4 0.39 0.39 0.33 0.26 0.36 0.4 0.4 0.4 0.33 0.42 0.33 0.41 0.3 0.32 0.43 0.42 0.4 0.45**

**0.87 0.92 1 0.12 0.18 0.11 0.88 0.83 0.9 0.65 0.96 0.83 0.93 1 -0.19 0.07 0.16 0.21 0.33 0.11 0.38 0.21 -0.07 -0.02 0.35 0.34 0.16 0.2 0.37 0.39 0.37 0.39 -0.19 0.34 0.34 0.34 0.27 0.19 0.3 0.34 0.35 0.35 0.26 0.38 0.25 0.37 0.28 0.32 0.49 0.45 0.45 0.49**

**0.29 0.19 0.12 1 0.99 0.91 0.22 0.33 0.2 0.3 0.18 0.31 0.21 0.12 0.17 0.8 0.99 0.93 0.87 0.84 0.83 0.72 0.79 0.7 0.85 0.86 0.8 0.52 0.84 0.63 0.72 0.6 -0.13 0.86 0.85 0.86 0.83 0.87 0.88 0.87 0.86 0.87 0.88 0.85 0.88 0.73 0.71 0.66 0.32 0.41 0.31 0.48**

**0.33 0.25 0.18 0.99 1 0.9 0.28 0.41 0.27 0.37 0.24 0.34 0.27 0.19 0.13 0.78 0.99 0.92 0.89 0.84 0.87 0.72 0.78 0.69 0.89 0.9 0.81 0.56 0.88 0.7 0.78 0.66 -0.15 0.9 0.88 0.9 0.85 0.86 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.79 0.79 0.68 0.41 0.49 0.38 0.56**

**0.22 0.15 0.11 0.91 0.9 1 0.2 0.31 0.18 0.32 0.15 0.24 0.17 0.12 0.48 0.77 0.95 0.85 0.78 0.89 0.71 0.86 0.73 0.88 0.77 0.78 0.86 0.46 0.72 0.55 0.62 0.52 -0.02 0.77 0.75 0.76 0.76 0.75 0.73 0.73 0.72 0.73 0.74 0.72 0.74 0.65 0.67 0.57 0.35 0.4 0.33 0.47**

**0.76 0.97 0.88 0.22 0.28 0.2 1 0.84 1 0.66 0.96 0.7 0.96 0.85 -0.15 0.16 0.26 0.29 0.4 0.22 0.44 0.26 0.03 0.07 0.43 0.42 0.25 0.3 0.45 0.5 0.44 0.48 -0.18 0.43 0.42 0.42 0.36 0.27 0.37 0.41 0.42 0.41 0.34 0.44 0.33 0.42 0.36 0.34 0.46 0.46 0.38 0.47**

**0.87 0.84 0.83 0.33 0.41 0.31 0.84 1 0.85 0.88 0.86 0.87 0.88 0.85 -0.15 0.27 0.38 0.44 0.56 0.35 0.61 0.4 0.07 0.14 0.61 0.59 0.41 0.4 0.62 0.56 0.59 0.55 -0.18 0.59 0.6 0.58 0.52 0.4 0.52 0.57 0.58 0.57 0.48 0.6 0.47 0.57 0.53 0.51 0.65 0.66 0.55 0.68**

**0.8 0.98 0.9 0.2 0.27 0.18 1 0.85 1 0.68 0.97 0.74 0.97 0.88 -0.16 0.15 0.24 0.28 0.38 0.2 0.43 0.25 0.02 0.05 0.41 0.41 0.23 0.3 0.44 0.51 0.45 0.49 -0.18 0.42 0.4 0.41 0.35 0.26 0.36 0.4 0.41 0.4 0.33 0.43 0.33 0.42 0.34 0.32 0.46 0.45 0.4 0.47**

**0.79 0.66 0.65 0.3 0.37 0.32 0.66 0.88 0.68 1 0.67 0.8 0.71 0.68 -0.01 0.29 0.36 0.41 0.54 0.43 0.57 0.43 0.03 0.15 0.57 0.56 0.46 0.53 0.56 0.56 0.59 0.56 -0.18 0.56 0.56 0.54 0.54 0.37 0.47 0.51 0.52 0.52 0.43 0.54 0.43 0.54 0.45 0.5 0.62 0.63 0.55 0.63**

**0.86 0.99 0.96 0.18 0.24 0.15 0.96 0.86 0.97 0.67 1 0.81 0.99 0.94 -0.2 0.14 0.21 0.27 0.38 0.16 0.43 0.23 -0.02 0.01 0.39 0.39 0.19 0.26 0.42 0.47 0.42 0.46 -0.19 0.39 0.39 0.39 0.33 0.25 0.36 0.4 0.4 0.4 0.32 0.42 0.32 0.41 0.3 0.33 0.46 0.43 0.42 0.47**

**0.99 0.76 0.83 0.31 0.34 0.24 0.7 0.87 0.74 0.8 0.81 1 0.81 0.86 -0.18 0.24 0.32 0.41 0.49 0.28 0.53 0.32 0.03 0.05 0.49 0.49 0.3 0.32 0.52 0.43 0.48 0.44 -0.21 0.49 0.5 0.49 0.45 0.37 0.48 0.5 0.51 0.51 0.45 0.52 0.42 0.46 0.34 0.49 0.5 0.5 0.44 0.53**

**0.86 1 0.93 0.21 0.27 0.17 0.96 0.88 0.97 0.71 0.99 0.81 1 0.91 -0.21 0.16 0.24 0.3 0.4 0.19 0.46 0.25 0.01 0.03 0.42 0.42 0.21 0.3 0.45 0.51 0.46 0.49 -0.2 0.43 0.42 0.42 0.36 0.29 0.39 0.43 0.43 0.43 0.35 0.45 0.35 0.44 0.33 0.34 0.46 0.45 0.43 0.48**

**0.89 0.9 1 0.12 0.19 0.12 0.85 0.85 0.88 0.68 0.94 0.86 0.91 1 -0.19 0.08 0.16 0.22 0.34 0.12 0.4 0.23 -0.08 -0.02 0.37 0.36 0.18 0.21 0.39 0.39 0.38 0.39 -0.19 0.35 0.36 0.35 0.29 0.2 0.32 0.36 0.37 0.36 0.28 0.39 0.26 0.39 0.29 0.34 0.52 0.47 0.48 0.52**

**-0.19 -0.2 -0.19 0.17 0.13 0.48 -0.15 -0.15 -0.16 -0.01 -0.2 -0.18 -0.21 -0.19 1 0.38 0.24 0.2 0.07 0.53 -0.07 0.56 0.1 0.68 0.04 0.05 0.5 -0.07 -0.08 -0.14 -0.13 -0.13 0.2 0 0.02 -0 0.13 0.13 -0.02 -0.05 -0.07 -0.06 0.03 -0.08 0.01 -0.12 -0.05 -0.01 -0.12 -0.11 -0.12 -0.12**

**0.23 0.15 0.07 0.8 0.78 0.77 0.16 0.27 0.15 0.29 0.14 0.24 0.16 0.08 0.38 1 0.79 0.91 0.85 0.89 0.78 0.84 0.36 0.65 0.78 0.81 0.86 0.58 0.75 0.56 0.62 0.6 -0.06 0.8 0.81 0.82 0.89 0.95 0.85 0.82 0.8 0.81 0.9 0.77 0.9 0.65 0.46 0.61 0.34 0.42 0.38 0.45**

**0.3 0.22 0.16 0.99 0.99 0.95 0.26 0.38 0.24 0.36 0.21 0.32 0.24 0.16 0.24 0.79 1 0.92 0.88 0.87 0.83 0.78 0.79 0.77 0.87 0.88 0.84 0.54 0.85 0.66 0.74 0.62 -0.11 0.88 0.86 0.87 0.84 0.85 0.86 0.86 0.86 0.86 0.86 0.85 0.86 0.75 0.76 0.66 0.39 0.47 0.36 0.54**

**0.39 0.27 0.21 0.93 0.92 0.85 0.29 0.44 0.28 0.41 0.27 0.41 0.3 0.22 0.2 0.91 0.92 1 0.96 0.89 0.93 0.84 0.52 0.63 0.92 0.94 0.87 0.63 0.91 0.67 0.74 0.65 -0.1 0.94 0.94 0.95 0.95 0.97 0.96 0.95 0.94 0.94 0.97 0.93 0.96 0.8 0.66 0.76 0.47 0.55 0.46 0.61**

**0.47 0.38 0.33 0.87 0.89 0.78 0.4 0.56 0.38 0.54 0.38 0.49 0.4 0.34 0.07 0.85 0.88 0.96 1 0.85 0.99 0.8 0.43 0.5 0.98 0.99 0.86 0.74 0.98 0.74 0.81 0.74 -0.15 0.99 0.99 0.99 0.99 0.95 0.98 0.99 0.99 0.99 0.98 0.98 0.98 0.89 0.73 0.83 0.66 0.73 0.63 0.77**

**0.26 0.17 0.11 0.84 0.84 0.89 0.22 0.35 0.2 0.43 0.16 0.28 0.19 0.12 0.53 0.89 0.87 0.89 0.85 1 0.76 0.89 0.5 0.76 0.82 0.83 0.97 0.55 0.75 0.53 0.6 0.52 -0.05 0.81 0.81 0.8 0.86 0.85 0.8 0.77 0.77 0.77 0.82 0.75 0.81 0.63 0.59 0.68 0.39 0.5 0.34 0.51**

**0.52 0.43 0.38 0.83 0.87 0.71 0.44 0.61 0.43 0.57 0.43 0.53 0.46 0.4 -0.07 0.78 0.83 0.93 0.99 0.76 1 0.73 0.4 0.4 0.97 0.98 0.78 0.76 0.99 0.77 0.83 0.76 -0.17 0.99 0.99 0.99 0.97 0.92 0.98 0.99 0.99 0.99 0.96 1 0.96 0.92 0.74 0.84 0.7 0.76 0.67 0.81**

**0.31 0.23 0.21 0.72 0.72 0.86 0.26 0.4 0.25 0.43 0.23 0.32 0.25 0.23 0.56 0.84 0.78 0.84 0.8 0.89 0.73 1 0.3 0.77 0.77 0.78 0.88 0.56 0.72 0.51 0.56 0.51 0.05 0.77 0.78 0.77 0.84 0.78 0.73 0.73 0.72 0.73 0.76 0.72 0.75 0.65 0.53 0.65 0.52 0.56 0.5 0.59**

**0.02 -0 -0.07 0.79 0.78 0.73 0.03 0.07 0.02 0.03 -0.02 0.03 0.01 -0.08 0.1 0.36 0.79 0.52 0.43 0.5 0.4 0.3 1 0.64 0.46 0.45 0.44 0.14 0.44 0.4 0.47 0.33 -0.13 0.46 0.42 0.44 0.35 0.43 0.44 0.44 0.45 0.45 0.44 0.44 0.45 0.38 0.59 0.24 -0.05 0.01 -0.06 0.1**

**0.04 0.02 -0.02 0.7 0.69 0.88 0.07 0.14 0.05 0.15 0.01 0.05 0.03 -0.02 0.68 0.65 0.77 0.63 0.5 0.76 0.4 0.77 0.64 1 0.51 0.51 0.72 0.18 0.43 0.34 0.41 0.31 0.09 0.51 0.49 0.49 0.51 0.53 0.45 0.44 0.44 0.44 0.49 0.42 0.49 0.35 0.53 0.26 0.08 0.15 0.04 0.2**

**0.47 0.39 0.35 0.85 0.89 0.77 0.43 0.61 0.41 0.57 0.39 0.49 0.42 0.37 0.04 0.78 0.87 0.92 0.98 0.82 0.97 0.77 0.46 0.51 1 1 0.86 0.67 0.99 0.73 0.81 0.71 -0.15 0.99 0.99 0.99 0.95 0.89 0.95 0.97 0.98 0.98 0.94 0.98 0.93 0.9 0.84 0.81 0.73 0.8 0.65 0.85**

**0.47 0.39 0.34 0.86 0.9 0.78 0.42 0.59 0.41 0.56 0.39 0.49 0.42 0.36 0.05 0.81 0.88 0.94 0.99 0.83 0.98 0.78 0.45 0.51 1 1 0.86 0.7 0.99 0.75 0.82 0.73 -0.15 1 1 0.99 0.97 0.92 0.97 0.98 0.99 0.98 0.95 0.99 0.95 0.91 0.81 0.81 0.71 0.78 0.65 0.82**

**0.28 0.19 0.16 0.8 0.81 0.86 0.25 0.41 0.23 0.46 0.19 0.3 0.21 0.18 0.5 0.86 0.84 0.87 0.86 0.97 0.78 0.88 0.44 0.72 0.86 0.86 1 0.51 0.78 0.49 0.57 0.49 -0.06 0.82 0.84 0.82 0.86 0.84 0.81 0.79 0.79 0.79 0.82 0.77 0.81 0.65 0.66 0.71 0.51 0.62 0.42 0.63**

**0.31 0.28 0.2 0.52 0.56 0.46 0.3 0.4 0.3 0.53 0.26 0.32 0.3 0.21 -0.07 0.58 0.54 0.63 0.74 0.55 0.76 0.56 0.14 0.18 0.67 0.7 0.51 1 0.72 0.85 0.81 0.86 -0.13 0.73 0.7 0.73 0.78 0.65 0.66 0.72 0.7 0.71 0.66 0.72 0.7 0.84 0.36 0.56 0.61 0.54 0.76 0.57**

**0.5 0.42 0.37 0.84 0.88 0.72 0.45 0.62 0.44 0.56 0.42 0.52 0.45 0.39 -0.08 0.75 0.85 0.91 0.98 0.75 0.99 0.72 0.44 0.43 0.99 0.99 0.78 0.72 1 0.78 0.85 0.76 -0.17 0.99 0.99 0.99 0.95 0.89 0.96 0.99 0.99 0.99 0.94 1 0.95 0.93 0.82 0.8 0.72 0.78 0.67 0.83**

**0.43 0.49 0.39 0.63 0.7 0.55 0.5 0.56 0.51 0.56 0.47 0.43 0.51 0.39 -0.14 0.56 0.66 0.67 0.74 0.53 0.77 0.51 0.4 0.34 0.73 0.75 0.49 0.85 0.78 1 0.98 0.99 -0.17 0.78 0.73 0.78 0.74 0.66 0.69 0.77 0.76 0.76 0.68 0.77 0.74 0.9 0.56 0.39 0.56 0.47 0.7 0.56**

**0.46 0.43 0.37 0.72 0.78 0.62 0.44 0.59 0.45 0.59 0.42 0.48 0.46 0.38 -0.13 0.62 0.74 0.74 0.81 0.6 0.83 0.56 0.47 0.41 0.81 0.82 0.57 0.81 0.85 0.98 1 0.96 -0.17 0.85 0.8 0.84 0.8 0.73 0.77 0.84 0.83 0.83 0.76 0.84 0.8 0.93 0.67 0.47 0.59 0.53 0.69 0.62**

**0.44 0.47 0.39 0.6 0.66 0.52 0.48 0.55 0.49 0.56 0.46 0.44 0.49 0.39 -0.13 0.6 0.62 0.65 0.74 0.52 0.76 0.51 0.33 0.31 0.71 0.73 0.49 0.86 0.76 0.99 0.96 1 -0.17 0.76 0.71 0.76 0.75 0.67 0.69 0.76 0.74 0.75 0.69 0.75 0.74 0.89 0.5 0.38 0.56 0.46 0.72 0.55**

**-0.21 -0.19 -0.19 -0.13 -0.15 -0.02 -0.18 -0.18 -0.18 -0.18 -0.19 -0.21 -0.2 -0.19 0.2 -0.06 -0.11 -0.1 -0.15 -0.05 -0.17 0.05 -0.13 0.09 -0.15 -0.15 -0.06 -0.13 -0.17 -0.17 -0.17 -0.17 1 -0.15 -0.15 -0.15 -0.13 -0.13 -0.16 -0.17 -0.17 -0.17 -0.15 -0.17 -0.16 -0.16 -0.14 -0.17 -0.11 -0.12 -0.12 -0.13**

**0.47 0.4 0.34 0.86 0.9 0.77 0.43 0.59 0.42 0.56 0.39 0.49 0.43 0.35 0 0.8 0.88 0.94 0.99 0.81 0.99 0.77 0.46 0.51 0.99 1 0.82 0.73 0.99 0.78 0.85 0.76 -0.15 1 0.99 1 0.97 0.92 0.97 0.99 0.99 0.99 0.96 0.99 0.96 0.92 0.81 0.8 0.69 0.76 0.64 0.8**

**0.48 0.39 0.34 0.85 0.88 0.75 0.42 0.6 0.4 0.56 0.39 0.5 0.42 0.36 0.02 0.81 0.86 0.94 0.99 0.81 0.99 0.78 0.42 0.49 0.99 1 0.84 0.7 0.99 0.73 0.8 0.71 -0.15 0.99 1 1 0.97 0.92 0.97 0.99 0.99 0.99 0.96 0.99 0.96 0.89 0.8 0.84 0.71 0.79 0.64 0.83**

**0.47 0.39 0.34 0.86 0.9 0.76 0.42 0.58 0.41 0.54 0.39 0.49 0.42 0.35 -0 0.82 0.87 0.95 0.99 0.8 0.99 0.77 0.44 0.49 0.99 0.99 0.82 0.73 0.99 0.78 0.84 0.76 -0.15 1 1 1 0.97 0.94 0.98 0.99 0.99 0.99 0.97 0.99 0.97 0.92 0.78 0.8 0.68 0.75 0.64 0.79**

**0.43 0.33 0.27 0.83 0.85 0.76 0.36 0.52 0.35 0.54 0.33 0.45 0.36 0.29 0.13 0.89 0.84 0.95 0.99 0.86 0.97 0.84 0.35 0.51 0.95 0.97 0.86 0.78 0.95 0.74 0.8 0.75 -0.13 0.97 0.97 0.97 1 0.96 0.96 0.96 0.96 0.96 0.97 0.95 0.97 0.87 0.66 0.81 0.65 0.71 0.64 0.74**

**0.36 0.26 0.19 0.87 0.86 0.75 0.27 0.4 0.26 0.37 0.25 0.37 0.29 0.2 0.13 0.95 0.85 0.97 0.95 0.85 0.92 0.78 0.43 0.53 0.89 0.92 0.84 0.65 0.89 0.66 0.73 0.67 -0.13 0.92 0.92 0.94 0.96 1 0.97 0.94 0.93 0.94 0.99 0.91 0.99 0.78 0.6 0.74 0.46 0.55 0.47 0.59**

**0.47 0.36 0.3 0.88 0.89 0.73 0.37 0.52 0.36 0.47 0.36 0.48 0.39 0.32 -0.02 0.85 0.86 0.96 0.98 0.8 0.98 0.73 0.44 0.45 0.95 0.97 0.81 0.66 0.96 0.69 0.77 0.69 -0.16 0.97 0.97 0.98 0.96 0.97 1 0.99 0.99 0.99 1 0.98 0.99 0.85 0.71 0.82 0.58 0.67 0.54 0.72**

**0.48 0.4 0.34 0.87 0.89 0.73 0.41 0.57 0.4 0.51 0.4 0.5 0.43 0.36 -0.05 0.82 0.86 0.95 0.99 0.77 0.99 0.73 0.44 0.44 0.97 0.98 0.79 0.72 0.99 0.77 0.84 0.76 -0.17 0.99 0.99 0.99 0.96 0.94 0.99 1 1 1 0.98 1 0.98 0.91 0.75 0.8 0.66 0.72 0.64 0.77**

**0.49 0.4 0.35 0.86 0.89 0.72 0.42 0.58 0.41 0.52 0.4 0.51 0.43 0.37 -0.07 0.8 0.86 0.94 0.99 0.77 0.99 0.72 0.45 0.44 0.98 0.99 0.79 0.7 0.99 0.76 0.83 0.74 -0.17 0.99 0.99 0.99 0.96 0.93 0.99 1 1 1 0.97 1 0.98 0.91 0.76 0.81 0.66 0.73 0.63 0.78**

**0.49 0.4 0.35 0.87 0.89 0.73 0.41 0.57 0.4 0.52 0.4 0.51 0.43 0.36 -0.06 0.81 0.86 0.94 0.99 0.77 0.99 0.73 0.45 0.44 0.98 0.98 0.79 0.71 0.99 0.76 0.83 0.75 -0.17 0.99 0.99 0.99 0.96 0.94 0.99 1 1 1 0.98 1 0.98 0.91 0.76 0.8 0.66 0.72 0.63 0.78**

**0.43 0.33 0.26 0.88 0.89 0.74 0.34 0.48 0.33 0.43 0.32 0.45 0.35 0.28 0.03 0.9 0.86 0.97 0.98 0.82 0.96 0.76 0.44 0.49 0.94 0.95 0.82 0.66 0.94 0.68 0.76 0.69 -0.15 0.96 0.96 0.97 0.97 0.99 1 0.98 0.97 0.98 1 0.96 1 0.83 0.67 0.8 0.53 0.63 0.52 0.67**

**0.51 0.42 0.38 0.85 0.89 0.72 0.44 0.6 0.43 0.54 0.42 0.52 0.45 0.39 -0.08 0.77 0.85 0.93 0.98 0.75 1 0.72 0.44 0.42 0.98 0.99 0.77 0.72 1 0.77 0.84 0.75 -0.17 0.99 0.99 0.99 0.95 0.91 0.98 1 1 1 0.96 1 0.96 0.93 0.78 0.81 0.69 0.75 0.66 0.81**

**0.41 0.33 0.25 0.88 0.89 0.74 0.33 0.47 0.33 0.43 0.32 0.42 0.35 0.26 0.01 0.9 0.86 0.96 0.98 0.81 0.96 0.75 0.45 0.49 0.93 0.95 0.81 0.7 0.95 0.74 0.8 0.74 -0.16 0.96 0.96 0.97 0.97 0.99 0.99 0.98 0.98 0.98 1 0.96 1 0.86 0.67 0.76 0.54 0.62 0.55 0.67**

**0.44 0.41 0.37 0.73 0.79 0.65 0.42 0.57 0.42 0.54 0.41 0.46 0.44 0.39 -0.12 0.65 0.75 0.8 0.89 0.63 0.92 0.65 0.38 0.35 0.9 0.91 0.65 0.84 0.93 0.9 0.93 0.89 -0.16 0.92 0.89 0.92 0.87 0.78 0.85 0.91 0.91 0.91 0.83 0.93 0.86 1 0.72 0.63 0.78 0.72 0.84 0.8**

**0.32 0.3 0.28 0.71 0.79 0.67 0.36 0.53 0.34 0.45 0.3 0.34 0.33 0.29 -0.05 0.46 0.76 0.66 0.73 0.59 0.74 0.53 0.59 0.53 0.84 0.81 0.66 0.36 0.82 0.56 0.67 0.5 -0.14 0.81 0.8 0.78 0.66 0.6 0.71 0.75 0.76 0.76 0.67 0.78 0.67 0.72 1 0.62 0.65 0.74 0.46 0.78**

**0.47 0.32 0.32 0.66 0.68 0.57 0.34 0.51 0.32 0.5 0.33 0.49 0.34 0.34 -0.01 0.61 0.66 0.76 0.83 0.68 0.84 0.65 0.24 0.26 0.81 0.81 0.71 0.56 0.8 0.39 0.47 0.38 -0.17 0.8 0.84 0.8 0.81 0.74 0.82 0.8 0.81 0.8 0.8 0.81 0.76 0.63 0.62 1 0.63 0.78 0.47 0.75**

**0.48 0.43 0.49 0.32 0.41 0.35 0.46 0.65 0.46 0.62 0.46 0.5 0.46 0.52 -0.12 0.34 0.39 0.47 0.66 0.39 0.7 0.52 -0.05 0.08 0.73 0.71 0.51 0.61 0.72 0.56 0.59 0.56 -0.11 0.69 0.71 0.68 0.65 0.46 0.58 0.66 0.66 0.66 0.53 0.69 0.54 0.78 0.65 0.63 1 0.94 0.92 0.96**

**0.48 0.42 0.45 0.41 0.49 0.4 0.46 0.66 0.45 0.63 0.43 0.5 0.45 0.47 -0.11 0.42 0.47 0.55 0.73 0.5 0.76 0.56 0.01 0.15 0.8 0.78 0.62 0.54 0.78 0.47 0.53 0.46 -0.12 0.76 0.79 0.75 0.71 0.55 0.67 0.72 0.73 0.72 0.63 0.75 0.62 0.72 0.74 0.78 0.94 1 0.76 0.98**

**0.42 0.4 0.45 0.31 0.38 0.33 0.38 0.55 0.4 0.55 0.42 0.44 0.43 0.48 -0.12 0.38 0.36 0.46 0.63 0.34 0.67 0.5 -0.06 0.04 0.65 0.65 0.42 0.76 0.67 0.7 0.69 0.72 -0.12 0.64 0.64 0.64 0.64 0.47 0.54 0.64 0.63 0.63 0.52 0.66 0.55 0.84 0.46 0.47 0.92 0.76 1 0.82**

**0.51 0.45 0.49 0.48 0.56 0.47 0.47 0.68 0.47 0.63 0.47 0.53 0.48 0.52 -0.12 0.45 0.54 0.61 0.77 0.51 0.81 0.59 0.1 0.2 0.85 0.82 0.63 0.57 0.83 0.56 0.62 0.55 -0.13 0.8 0.83 0.79 0.74 0.59 0.72 0.77 0.78 0.78 0.67 0.81 0.67 0.8 0.78 0.75 0.96 0.98 0.82 1**

**eigenvalue proportion cumulative**

**32.86182 0.63196 0.63196 -0.17263.0-0.17245.0-0.17265.0-0.17136.0-0.17164.0...**

**8.2515 0.15868 0.79064 0.2852.0+0.28313.0+0.28 10.0+0.27312.0+0.2731.0...**

**2.95866 0.0569 0.84754 0.35 17.0+0.34641.0-0.27780.0-0.24278.0+0.2245.0...**

**2.06537 0.03972 0.88726 0.35417.0-0.34840.0+0.29879.0-0.26654.0+0.25978.0...**

**1.61317 0.03102 0.91828 0.35656.0+0.34747.0+0.32654.0+0.29917.0+0.27980.0...**

**1.32417 0.02546 0.94374 0.46 76.0+0.34840.0-0.29620.0-0.24867.0+0.23878.0...**

**0.9018 0.01734 0.96109 -0.91462.0+0.19 9.0+0.16717.0+0.10537.0+0.09947.0...**

**Eigenvectors**

**V1 V2 V3 V4 V5 V6 V7**

**-0.1001 0.2392 0.1207 0.0115 -0.0907 -0.12 0.0456 0.0**

**-0.0879 0.2725 0.1536 -0.0669 0.0192 -0.0446 -0.0739 1.0**

**-0.0795 0.2854 0.1316 0.0201 -0.0182 0.0011 -0.0272 2.0**

**-0.1477 -0.1352 0.1287 -0.1524 -0.1013 0.0353 -0.0197 3.0**

**-0.1548 -0.1111 0.1018 -0.1495 -0.0788 0.1131 -0.0058 4.0**

**-0.1349 -0.1435 0.2242 0.0186 0.0746 0.1696 0.0356 5.0**

**-0.0915 0.2561 0.158 -0.0446 0.0253 0.0127 -0.0745 6.0**

**-0.1179 0.2255 0.0761 0.0557 -0.0149 0.0797 0.0202 7.0**

**-0.0901 0.2655 0.1561 -0.0516 0.0392 0.0032 -0.0618 8.0**

**-0.1105 0.1787 0.0382 0.115 0.1182 0.0574 0.1901 9.0**

**-0.0881 0.2801 0.1519 -0.042 0.0025 -0.0383 -0.0601 10.0**

**-0.1022 0.2241 0.1001 0.0258 -0.0967 -0.1139 0.0663 11.0**

**-0.093 0.273 0.144 -0.0579 0.0161 -0.0376 -0.0564 12.0**

**-0.082 0.2832 0.1153 0.0396 -0.0219 0.0025 -0.0096 13.0**

**-0.0063 -0.1491 0.3502 0.3542 0.2987 0.0009 0.1667 17.0**

**-0.1388 -0.1401 0.0883 0.0597 0.0934 -0.2964 0.0114 20.0**

**-0.1513 -0.1259 0.1456 -0.101 -0.0393 0.1228 0.0042 34.0**

**-0.1618 -0.1022 0.0662 -0.0118 -0.0365 -0.1362 -0.0422 35.0**

**-0.1714 -0.0482 -0.0298 0.0203 -0.031 -0.0785 -0.0078 36.0**

**-0.1413 -0.1339 0.1752 0.1406 0.0751 -0.0617 0.1052 37.0**

**-0.1711 -0.0167 -0.0805 -0.0165 -0.0586 -0.0606 -0.031 38.0**

**-0.1374 -0.0944 0.1469 0.255 0.183 -0.0446 0.0214 39.0**

**-0.0769 -0.1476 0.2148 -0.348 -0.1402 0.348 0.0144 40.0**

**-0.0887 -0.1658 0.3459 0.0534 0.1505 0.2142 0.0056 41.0**

**-0.171 -0.0334 -0.0376 0.0466 -0.0704 0.0716 -0.0114 44.0**

**-0.172 -0.0394 -0.0374 0.0295 -0.0467 0.0261 -0.0118 45.0**

**-0.1444 -0.114 0.1355 0.2171 0.0237 0.0064 0.0961 46.0**

**-0.1274 -0.0066 -0.2142 -0.0719 0.347 -0.1315 0.0991 47.0**

**-0.1712 -0.0173 -0.0806 -0.0221 -0.0683 0.032 -0.042 48.0**

**-0.1394 0.0359 -0.0826 -0.2665 0.3263 0.0676 0.0076 54.0**

**-0.1495 0.0116 -0.0765 -0.2397 0.2331 0.0986 0.0116 55.0**

**-0.1369 0.0374 -0.0988 -0.2446 0.3559 -0.0046 0.0228 56.0**

**0.0303 -0.0569 0.0412 0.1947 0.1899 0.0458 -0.9144 62.0**

**-0.1721 -0.0365 -0.0461 -0.0113 -0.0342 0.0172 -0.0301 63.0**

**-0.1713 -0.0359 -0.0512 0.0426 -0.0751 -0.0092 -0.0257 64.0**

**-0.172 -0.0388 -0.0517 -0.0122 -0.0358 -0.0261 -0.0336 65.0**

**-0.1676 -0.0606 -0.0423 0.0583 0.044 -0.1431 0.0188 66.0**

**-0.1577 -0.0987 0.0126 -0.0232 -0.0389 -0.248 -0.0357 67.0**

**-0.1666 -0.0536 -0.0313 -0.0299 -0.1261 -0.1476 -0.054 68.0**

**-0.1706 -0.0352 -0.0622 -0.043 -0.067 -0.0684 -0.0482 69.0**

**-0.1705 -0.0312 -0.063 -0.04 -0.0882 -0.051 -0.0526 70.0**

**-0.1706 -0.0335 -0.0626 -0.0417 -0.0761 -0.061 -0.0501 71.0**

**-0.1644 -0.0711 -0.0148 -0.0276 -0.0938 -0.1869 -0.0474 72.0**

**-0.171 -0.0209 -0.0732 -0.0379 -0.0774 -0.0188 -0.0503 73.0**

**-0.1648 -0.0723 -0.0323 -0.0641 -0.0451 -0.1687 -0.0481 74.0**

**-0.16 0.0032 -0.1574 -0.0894 0.1503 0.1017 -0.0168 75.0**

**-0.1352 -0.0268 -0.013 0.0003 -0.1965 0.4596 -0.0359 76.0**

**-0.1388 -0.0128 -0.06 0.1926 -0.2739 -0.1075 0.0509 77.0**

**-0.1234 0.1025 -0.2416 0.2588 0.0626 0.2384 0.0436 78.0**

**-0.132 0.074 -0.1952 0.2977 -0.1132 0.1888 0.0209 79.0**

**-0.1174 0.0891 -0.2767 0.1232 0.2793 0.1173 0.0634 80.0**

**-0.141 0.073 -0.1851 0.2359 -0.0799 0.2272 0.0022 81.0**

**Ranked attributes:**

**0.368 1 -0.17263.0-0.17245.0-0.17265.0-0.17136.0-0.17164.0...**

**0.2094 2 0.2852.0+0.28313.0+0.28 10.0+0.27312.0+0.2731.0...**

**0.1525 3 0.35 17.0+0.34641.0-0.27780.0-0.24278.0+0.2245.0...**

**0.1127 4 0.35417.0-0.34840.0+0.29879.0-0.26654.0+0.25978.0...**

**0.0817 5 0.35656.0+0.34747.0+0.32654.0+0.29917.0+0.27980.0...**

**0.0563 6 0.46 76.0+0.34840.0-0.29620.0-0.24867.0+0.23878.0...**

**0.0389 7 -0.91462.0+0.19 9.0+0.16717.0+0.10537.0+0.09947.0...**

**Selected attributes: 1,2,3,4,5,6,7 : 7**

**4)**

**Attribute Evaluator: ReliefAttributeEval**

**Search Method : Ranker**

**Using full training set**

**=== Attribute Selection on all input data ===**

**Search Method:**

**Attribute ranking.**

**Attribute Evaluator (supervised, Class (numeric): 83 82.0):**

**ReliefF Ranking Filter**

**Instances sampled: all**

**Number of nearest neighbours (k): 10**

**Equal influence nearest neighbours**

**Ranked attributes:**

**0.4381 78 77.0**

**0.4131 75 74.0**

**0.3957 72 71.0**

**0.395 70 69.0**

**0.3936 71 70.0**

**0.3924 39 38.0**

**0.3917 69 68.0**

**0.3915 73 72.0**

**0.3899 68 67.0**

**0.377 66 65.0**

**0.3748 74 73.0**

**0.365 64 63.0**

**0.3629 37 36.0**

**0.3593 49 48.0**

**0.3576 48 47.0**

**0.3556 67 66.0**

**0.3536 65 64.0**

**0.3532 76 75.0**

**0.3511 81 80.0**

**0.3411 36 35.0**

**0.3293 46 45.0**

**0.3198 56 55.0**

**0.3127 45 44.0**

**0.3092 4 3.0**

**0.3061 55 54.0**

**0.2992 21 20.0**

**0.289 57 56.0**

**0.2836 77 76.0**

**0.278 5 4.0**

**0.263 38 37.0**

**0.254 35 34.0**

**0.2534 79 78.0**

**0.2402 80 79.0**

**0.2278 41 40.0**

**0.2221 82 81.0**

**0.2197 47 46.0**

**0.2083 6 5.0**

**0.1946 40 39.0**

**0.1871 42 41.0**

**0.1851 10 9.0**

**0.1768 14 13.0**

**0.1735 3 2.0**

**0.166 12 11.0**

**0.1648 1 0.0**

**0.162 8 7.0**

**0.1145 11 10.0**

**0.109 13 12.0**

**0.0884 2 1.0**

**0.0839 7 6.0**

**0.0793 9 8.0**

**0.0755 18 17.0**

**0 16 15.0**

**0 17 16.0**

**0 53 52.0**

**0 15 14.0**

**0 54 53.0**

**0 52 51.0**

**0 58 57.0**

**0 51 50.0**

**0 62 61.0**

**0 44 43.0**

**0 43 42.0**

**0 19 18.0**

**0 20 19.0**

**0 33 32.0**

**0 31 30.0**

**0 32 31.0**

**0 34 33.0**

**0 61 60.0**

**0 60 59.0**

**0 59 58.0**

**0 30 29.0**

**0 29 28.0**

**0 28 27.0**

**0 27 26.0**

**0 22 21.0**

**0 23 22.0**

**0 50 49.0**

**0 24 23.0**

**0 25 24.0**

**0 26 25.0**

**-0.1124 63 62.0**

**Selected attributes: 78,75,72,70,71,39,69,73,68,66,74,64,37,49,48,67,65,76,81,36,46,56,45,4,55,21,57,77,5,38,35,79,80,41,82,47,6,40,42,10,14,3,12,1,8,11,13,2,7,9,18,16,17,53,15,54,52,58,51,62,44,43,19,20,33,31,32,34,61,60,59,30,29,28,27,22,23,50,24,25,26,63 : 82**