Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.846 ± 0.136	0.863 ± 0.106	0.866 ± 0.108	0.793 ± 0.148	0.802 ± 0.152	0.795 ± 0.148	0.844 ± 0.133
ecoli-0-2-3-4- vs -5	0.850 ± 0.087	0.862 ± 0.093	0.862 ± 0.093	0.903 ± 0.084	0.912 ± 0.078	$0.901 \stackrel{-}{\pm} 0.083$	0.910 ± 0.078
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.582 ± 0.128	$0.573 \stackrel{1}{\pm} 0.114$	$0.574 \stackrel{1}{\pm} 0.114$	0.725 ± 0.110	0.745 ± 0.106	$0.686 \stackrel{1}{\pm} 0.107$	0.741 ± 0.087
ecoli-0-1-vs-5	0.814 ± 0.099	0.851 ± 0.099	0.856 ± 0.104	0.900 ± 0.079	0.904 ± 0.078	0.906 ± 0.080	0.909 ± 0.077
yeast-1-4-5-8- vs -7	0.546 ± 0.078	$0.501 \stackrel{1}{\pm} 0.011$	0.501 ± 0.011	0.620 ± 0.090	0.618 ± 0.090	0.648 ± 0.090	0.642 ± 0.097
ecoli4	0.868 ± 0.091	0.872 ± 0.101	0.879 ± 0.102	0.919 ± 0.085	0.922 ± 0.097	0.930 ± 0.077	0.926 ± 0.089
$led 7 digit \hbox{-} 0\hbox{-} 2\hbox{-} 4\hbox{-} 5\hbox{-} 6\hbox{-} 7\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 1$	0.881 ± 0.072	0.880 ± 0.072	$0.881 \stackrel{1}{\pm} 0.072$	0.647 ± 0.093	0.650 ± 0.091	0.893 ± 0.079	0.897 ± 0.084
glass5	0.831 ± 0.189	0.837 ± 0.191	0.847 ± 0.185	0.905 ± 0.143	0.913 ± 0.143	0.906 ± 0.129	0.920 ± 0.128
ecoli-0-3-4-6-vs-5	0.821 ± 0.111	0.844 ± 0.122	0.851 ± 0.119	0.899 ± 0.096	0.905 ± 0.088	$0.902 \stackrel{4}{\pm} 0.098$	0.909 ± 0.090
y east - 0 - 5 - 6 - 7 - 9 - vs - 4	0.670 ± 0.077	0.658 ± 0.075	0.660 ± 0.078	0.792 ± 0.048	0.793 ± 0.046	0.802 ± 0.056	0.798 ± 0.057
yeast6	0.729 ± 0.089	0.727 ± 0.084	0.731 ± 0.082	0.835 ± 0.088	0.828 ± 0.087	0.843 ± 0.073	0.837 ± 0.080
ecoli-0-6-7-vs-5	0.842 ± 0.121	0.870 ± 0.116	0.870 ± 0.116	0.869 ± 0.106	0.869 ± 0.103	0.865 ± 0.109	0.874 ± 0.106
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.822 ± 0.182	0.859 ± 0.155	0.873 ± 0.148	0.875 ± 0.151	0.885 ± 0.160	0.872 ± 0.140	0.902 ± 0.137
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	0.820 ± 0.209	0.653 ± 0.206	$0.657 \stackrel{1}{\pm} 0.205$	0.839 ± 0.199	0.834 ± 0.200	0.834 ± 0.196	0.824 ± 0.194
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.725 ± 0.050	0.731 ± 0.044	0.735 ± 0.045	0.769 ± 0.057	0.774 ± 0.054	0.771 ± 0.059	0.775 ± 0.059
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	0.809 ± 0.095	0.823 ± 0.085	0.837 ± 0.095	0.888 ± 0.090	0.894 ± 0.080	0.887 ± 0.095	0.904 ± 0.079
yeast5	0.819 ± 0.085	0.815 ± 0.076	$0.819 \stackrel{1}{\pm} 0.068$	0.941 ± 0.049	0.933 ± 0.056	0.948 ± 0.047	0.936 ± 0.056
shuttle-c2-vs-c4	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.995 ± 0.034	0.995 ± 0.034	0.995 ± 0.034	0.995 ± 0.034
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.796 ± 0.092	0.807 ± 0.092	0.813 ± 0.092	0.857 ± 0.083	0.857 ± 0.081	0.848 ± 0.084	0.849 ± 0.081
y east - 0 - 3 - 5 - 9 - vs - 7 - 8	0.656 ± 0.070	0.595 ± 0.056	$0.600 \stackrel{1}{\pm} 0.055$	$1,2,3,6,7 \\ 0.655 \pm 0.069$	0.669 ± 0.071	0.683 ± 0.073	0.705 ± 0.066
yeast-1- vs -7	0.669 ± 0.095	0.546 ± 0.050	0.553 ± 0.057	0.680 ± 0.106	0.659 ± 0.105	0.712 ± 0.077	0.698 ± 0.095
yeast-1-2-8-9-vs-7	0.622 ± 0.082	0.552 ± 0.059	0.566 ± 0.057	0.668 ± 0.082	0.669 ± 0.068	0.693 ± 0.090	0.697 ± 0.089
ecoli-0-1-4-6-vs-5	0.792 ± 0.090	0.839 ± 0.090	0.846 ± 0.088	0.891 ± 0.077	0.898 ± 0.080	0.895 ± 0.077	0.903 ± 0.079
$glass\hbox{-}0\hbox{-}1\hbox{-}5\hbox{-}vs\hbox{-}2$	0.592 ± 0.127	0.568 ± 0.109	$0.579 \stackrel{1}{\pm} 0.109$	0.713 ± 0.127	0.741 ± 0.126	0.694 ± 0.081	0.730 ± 0.112
yeast-2-vs-4	0.844 ± 0.064	0.835 ± 0.068	0.838 ± 0.062	0.851 ± 0.067	0.851 ± 0.066	0.866 ± 0.074	0.874 ± 0.074
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.899 ± 0.171	0.907 ± 0.159	0.907 ± 0.160	0.789 ± 0.189	0.788 ± 0.189	0.797 ± 0.181	0.796 ± 0.187
glass2	0.561 ± 0.118	0.552 ± 0.077	0.564 ± 0.079	0.720 ± 0.130	0.757 ± 0.118	0.701 ± 0.116	0.764 ± 0.107
yeast-2- vs -8	0.704 ± 0.113	0.754 ± 0.119	0.764 ± 0.113	0.776 ± 0.110	0.773 ± 0.115	0.781 ± 0.111	0.771 ± 0.114
vowel0	0.963 ± 0.028 $4,5,6,7$	0.958 ± 0.029 $4,5,6,7$	0.959 ± 0.029	0.842 ± 0.057	0.830 ± 0.065	0.885 ± 0.064	0.876 ± 0.061
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.992 ± 0.016 6.7	0.992 ± 0.016	0.992 ± 0.016 6.7	0.913 ± 0.140	0.925 ± 0.134	0.906 ± 0.143	0.919 ± 0.138
$glass\hbox{-}0\hbox{-}1\hbox{-}4\hbox{-}6\hbox{-}vs\hbox{-}2$	0.573 ± 0.117	0.571 ± 0.110	0.575 ± 0.112	0.714 ± 0.124 $1,2,3$	0.735 ± 0.126	0.688 ± 0.108	0.748 ± 0.124
yeast4	0.668 ± 0.071	0.597 ± 0.056	0.603 ± 0.061	0.772 ± 0.074	0.768 ± 0.078	0.819 ± 0.066	0.831 ± 0.064
ecoli- 0 - 4 - 6 - vs - 5	0.814 ± 0.102	0.848 ± 0.104	0.852 ± 0.104	0.897 ± 0.085	0.907 ± 0.083	0.895 ± 0.084	0.910 ± 0.082
page-blocks-1-3-vs-4	0.956 ± 0.064	$0.978 \stackrel{1}{\pm} 0.053$	0.981 ± 0.051	0.728 ± 0.095	0.828 ± 0.112	0.821 ± 0.105	0.888 ± 0.085
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.844 ± 0.051	0.874 ± 0.045	0.877 ± 0.045	0.900 ± 0.038	0.901 ± 0.036	0.898 ± 0.037	0.901 ± 0.037
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.786 ± 0.114	0.811 ± 0.105	0.813 ± 0.106	0.859 ± 0.086	0.861 ± 0.088	0.848 ± 0.093	0.858 ± 0.090
ecoli-0-6-7-vs-3-5	0.821 ± 0.123	0.836 ± 0.113	0.844 ± 0.109	0.827 ± 0.104	0.831 ± 0.104	0.840 ± 0.103	0.836 ± 0.103
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	0.843 ± 0.085	0.862 ± 0.088	0.867 ± 0.081	0.880 ± 0.084	0.884 ± 0.076	0.893 ± 0.085	$0.893 \stackrel{2}{\pm} 0.080$
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.813 ± 0.129	0.832 ± 0.118	0.832 ± 0.118	0.836 ± 0.110	0.842 ± 0.100	$0.843 \stackrel{1}{\pm} 0.104$	0.834 ± 0.102
shuttle-c0-vs-c4	1.000 ± 0.000	$1.000 \stackrel{1}{\pm} 0.000$	$1.000 \stackrel{1}{\pm} 0.000$	0.998 ± 0.006	0.998 ± 0.006	0.998 ± 0.006	0.998 ± 0.006
ecoli-0-3-4-vs-5	0.828 ± 0.116	0.869 ± 0.115	0.868 ± 0.115	0.903 ± 0.109	0.911 ± 0.112	0.905 ± 0.107	0.911 ± 0.109
	_	1	1	1,2,3	1,2,3	1,2,3	1,2,3

Table 1: Results for BAC metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.537	2.598	3.439	4.110	4.805	4.829	5.683
	_	_	1,2	1,2	1,2,3,4	1,2,3,4	all

Table 2: Results for mean ranks according to BAC metric

Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.680 ± 0.227	0.749 ± 0.168	0.749 ± 0.174	0.531 ± 0.231	0.551 ± 0.245	0.491 ± 0.222	0.599 ± 0.212
ecoli-0-2-3-4- vs -5	0.730 ± 0.140	0.794 ± 0.150	0.794 ± 0.150	0.822 ± 0.122	0.832 ± 0.117	$0.808 \stackrel{-}{\pm} 0.122$	0.819 ± 0.117
glass-0-1-6-vs-2	0.225 ± 0.219	$0.207 \stackrel{1}{\pm} 0.280$	0.213 ± 0.278	0.323 ± 0.103	0.341 ± 0.101	0.252 ± 0.065	0.296 ± 0.062
ecoli-0-1- vs -5	0.666 ± 0.143	0.778 ± 0.144	0.780 ± 0.150	0.862 ± 0.106	0.860 ± 0.109	$0.839 \stackrel{-}{\pm} 0.125$	0.847 ± 0.117
yeast-1-4-5-8-vs-7	0.119 ± 0.133	$0.006 \stackrel{1}{\pm} 0.040$	$0.006 \stackrel{1}{\pm} 0.040$	0.162 ± 0.068	0.161 ± 0.071	0.138 ± 0.036	0.137 ± 0.040
ecoli4	0.732 ± 0.138	0.779 ± 0.155	0.784 ± 0.155	0.862 ± 0.119	0.843 ± 0.155	0.838 ± 0.128	$0.809 \overset{2,3}{\pm} 0.150$
led7 digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	0.778 ± 0.109	$0.711 \stackrel{1}{\pm} 0.109$	0.721 ± 0.112	0.392 ± 0.211	0.394 ± 0.196	0.737 ± 0.112	$0.731 \stackrel{1}{\pm} 0.116$
glass5	0.657 ± 0.346	0.680 ± 0.353	0.693 ± 0.339	0.695 ± 0.238	0.747 ± 0.250	0.562 ± 0.204	0.635 ± 0.221
ecoli-0-3-4-6- vs -5	0.665 ± 0.186	0.757 ± 0.198	0.765 ± 0.191	0.811 ± 0.149	0.806 ± 0.141	0.802 ± 0.156	0.807 ± 0.146
yeast-0-5-6-7-9-vs-4	$0.391 \stackrel{-}{\pm} 0.122$	0.423 ± 0.150	0.422 ± 0.152	0.539 ± 0.083	0.540 ± 0.084	0.462 ± 0.093	0.447 ± 0.085
yeast6	0.422 ± 0.135	0.540 ± 0.160	0.540 ± 0.152	0.483 ± 0.115	0.505 ± 0.104	$0.345 \stackrel{1,7}{\pm} 0.092$	$0.384 \stackrel{1}{\pm} 0.099$
ecoli-0-6-7-vs-5	0.726 ± 0.208	0.796 ± 0.181	0.795 ± 0.183	0.776 ± 0.169	0.778 ± 0.168	0.739 ± 0.183	0.759 ± 0.172
$glass\hbox{-}0\hbox{-}1\hbox{-}6\hbox{-}vs\hbox{-}5$	0.631 ± 0.314	0.699 ± 0.254	0.722 ± 0.242	$0.659 \stackrel{6}{\pm} 0.257$	0.709 ± 0.288	0.529 ± 0.194	0.663 ± 0.246
ecoli-0-1-3-7-vs-2-6	0.513 ± 0.327	$0.327 \stackrel{6}{\pm} 0.417$	0.333 ± 0.410	$0.536 \stackrel{6}{\pm} 0.318$	0.483 ± 0.299	0.454 ± 0.276	$0.390 \stackrel{6}{\pm} 0.269$
yeast-0-2-5-6-vs-3-7-8-9	0.491 ± 0.084	0.583 ± 0.085	0.589 ± 0.085	0.618 ± 0.094	0.622 ± 0.090	0.597 ± 0.095	0.572 ± 0.111
ecoli-0-1-4-7-vs-5-6	0.612 ± 0.134	$0.733 \stackrel{1}{\pm} 0.135$	0.746 ± 0.140	0.823 ± 0.128	0.818 ± 0.122	0.785 ± 0.146	0.788 ± 0.127
yeast5	0.658 ± 0.137	$0.686 \stackrel{1}{\pm} 0.120$	0.691 ± 0.105	0.712 ± 0.081	0.730 ± 0.086	0.653 ± 0.076	0.699 ± 0.091
shuttle- $c2$ - vs - $c4$	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.993 ± 0.046	$0.993 \stackrel{all}{\pm} 0.046$	0.993 ± 0.046	$0.993 \stackrel{6}{\pm} 0.046$
ecoli-0-1-4-7-vs-2-3-5-6	0.611 ± 0.148	0.708 ± 0.154	0.713 ± 0.151	0.776 ± 0.126	0.777 ± 0.129	0.688 ± 0.161	0.688 ± 0.144
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.366 ± 0.116	0.292 ± 0.152	$0.307 \stackrel{1}{\pm} 0.144$	0.389 ± 0.128	0.397 ± 0.124	0.375 ± 0.110	$0.350 \stackrel{1}{\pm} 0.087$
yeast-1-vs-7	0.353 ± 0.151	0.154 ± 0.156	0.176 ± 0.169	0.281 ± 0.109	0.245 ± 0.101	0.249 ± 0.057	$0.230 \stackrel{-}{\pm} 0.055$
yeast-1-2-8-9-vs-7	0.233 ± 0.137	0.166 ± 0.176	0.206 ± 0.169	0.218 ± 0.087	$0.207 \stackrel{2,3}{\pm} 0.064$	0.146 ± 0.045	$0.137 \stackrel{2}{\pm} 0.036$
ecoli-0-1-4-6- vs -5	0.606 ± 0.149	0.761 ± 0.150	0.768 ± 0.149	0.808 ± 0.117	0.808 ± 0.114	0.783 ± 0.121	0.794 ± 0.116
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.249 ± 0.210	$0.188 \stackrel{1}{\pm} 0.254$	0.216 ± 0.252	0.331 ± 0.120	0.349 ± 0.119	$0.278 \stackrel{1}{\pm} 0.057$	$0.308 \stackrel{1}{\pm} 0.090$
yeast-2-vs-4	0.707 ± 0.087	0.730 ± 0.102	0.733 ± 0.094	0.769 ± 0.093	0.772 ± 0.094	0.758 ± 0.098	0.753 ± 0.092
glass-0-6-vs-5	0.793 ± 0.302	0.817 ± 0.281	$0.815 \stackrel{-}{\pm} 0.284$	0.607 ± 0.352	0.631 ± 0.359	0.504 ± 0.266	$0.582 \stackrel{1}{\pm} 0.329$
glass2	0.167 ± 0.204	0.164 ± 0.212	0.193 ± 0.215	$0.325 \stackrel{6}{\pm} 0.140$	0.359 ± 0.127	0.251 ± 0.080	$0.306 \stackrel{6}{\pm} 0.079$
yeast-2-vs-8	0.408 ± 0.199	0.622 ± 0.228	0.644 ± 0.209	0.666 ± 0.196	0.655 ± 0.204	0.652 ± 0.195	0.547 ± 0.174
vowel0	0.921 ± 0.045	0.915 ± 0.042	0.916 ± 0.043	0.774 ± 0.079	0.761 ± 0.087	0.831 ± 0.084	0.824 ± 0.071
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.942 ± 0.109	0.942 ± 0.109	0.942 ± 0.109	0.866 ± 0.233	0.887 ± 0.227	0.826 ± 0.246	0.853 ± 0.243
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.220 \stackrel{6}{\pm} 0.210$	$0.201 \stackrel{6}{\pm} 0.271$	$0.210 \stackrel{6}{\pm} 0.273$	$0.316 \stackrel{6}{\pm} 0.116$	$0.329 \stackrel{6}{\pm} 0.126$	0.244 ± 0.071	0.295 ± 0.099
yeast4	0.336 ± 0.122	0.281 ± 0.135	0.292 ± 0.143	0.394 ± 0.087	0.401 ± 0.105	0.303 ± 0.054	0.304 ± 0.053
ecoli-0-4-6- vs -5	0.667 ± 0.159	0.765 ± 0.163	0.760 ± 0.156	0.812 ± 0.135	0.816 ± 0.144	0.798 ± 0.133	0.819 ± 0.141
page-blocks-1-3-vs-4	0.903 ± 0.084	$0.945 \stackrel{1}{\pm} 0.080$	$0.949 \stackrel{1}{\pm} 0.078$	0.548 ± 0.183	0.753 ± 0.195	$0.678 \stackrel{1}{\pm} 0.161$	0.838 ± 0.131
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.711 ± 0.076	0.802 ± 0.068	0.805 ± 0.068	0.821 ± 0.056	0.821 ± 0.056	0.814 ± 0.062	0.813 ± 0.056
ecoli-0-1- vs -2-3-5	0.599 ± 0.183	$0.700 \stackrel{1}{\pm} 0.175$	0.699 ± 0.175	0.808 ± 0.123	0.807 ± 0.128	0.715 ± 0.154	0.737 ± 0.141
ecoli-0-6-7-vs-3-5	0.676 ± 0.209	0.748 ± 0.197	0.760 ± 0.189	0.717 ± 0.172	0.714 ± 0.179	0.711 ± 0.181	0.687 ± 0.189
ecoli-0-3-4-7-vs-5-6	0.686 ± 0.108	0.798 ± 0.125	0.805 ± 0.115	0.790 ± 0.128	0.787 ± 0.117	$0.788 \stackrel{7}{\pm} 0.133$	0.771 ± 0.129
ecoli-0-2-6-7-vs-3-5	0.664 ± 0.218	$0.736 \stackrel{1}{\pm} 0.211$	$0.736 \stackrel{1}{\pm} 0.211$	$0.727 \stackrel{1}{\pm} 0.189$	$0.738 \stackrel{1}{\pm} 0.171$	$0.705 \stackrel{1}{\pm} 0.194$	0.664 ± 0.177
shuttle-c0-vs-c4	1.000 ± 0.000	$1.000 \stackrel{1,7}{\pm} 0.000$	$1.000 \overset{1,7}{\pm} 0.000$	0.998 ± 0.006	0.998 ± 0.006	0.998 ± 0.006	0.998 ± 0.006
ecoli-0-3-4- vs -5	0.683 ± 0.176	0.791 ± 0.179	0.789 ± 0.181	0.815 ± 0.162	0.827 ± 0.187	0.817 ± 0.163	0.827 ± 0.183
	<u> </u>	1	1	1	1	1	1

Table 3: Results for F1 metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.902	3.402	3.963	5.146	5.415	3.463	3.707
	_	_	1,2	1,2,3,6,7	1,2,3,6,7	_	_

Table 4: Results for mean ranks according to F1 metric

Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.730 ± 0.276	0.808 ± 0.221	0.798 ± 0.223	0.506 ± 0.275	0.518 ± 0.272	0.425 ± 0.232	0.538 ± 0.242
ecoli-0-2-3-4- vs -5	0.769 ± 0.174	$4,5,6,7$ 0.898 ± 0.154	$4,5,6,7$ 0.898 ± 0.154	0.845 ± 0.146	0.847 ± 0.153	0.819 ± 0.154	0.823 ± 0.158
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.237 ± 0.249	0.338 ± 0.447	0.348 ± 0.445	0.212 ± 0.074	0.225 ± 0.075	$0.150 \stackrel{1}{\pm} 0.040$	0.181 ± 0.041
ecoli-0-1-vs-5	0.731 ± 0.181	0.920 ± 0.127	0.911 ± 0.136	0.956 ± 0.097	0.936 ± 0.110	0.886 ± 0.162	$0.893 \stackrel{6}{\pm} 0.147$
yeast-1-4-5-8- vs -7	0.112 ± 0.127	0.020 ± 0.139	0.020 ± 0.139	0.102 ± 0.043	0.101 ± 0.046	$0.077 \stackrel{1}{\pm} 0.020$	0.077 ± 0.023
ecoli4	0.743 ± 0.176	0.848 ± 0.169	0.843 ± 0.168	0.911 ± 0.127	0.863 ± 0.162	0.846 ± 0.185	0.798 ± 0.192
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	0.797 ± 0.142	$0.655 \stackrel{1}{\pm} 0.133$	0.672 ± 0.139	0.584 ± 0.301	0.575 ± 0.274	$0.683 \stackrel{1}{\pm} 0.114$	0.667 ± 0.108
glass5	0.707 ± 0.382	0.737 ± 0.383	0.747 ± 0.370	0.651 ± 0.278	0.730 ± 0.290	$0.441 \stackrel{5}{\pm} 0.217$	$0.520 \stackrel{5}{\pm} 0.231$
ecoli- 0 - 3 - 4 - 6 - vs - 5	0.692 ± 0.204	0.878 ± 0.180	0.872 ± 0.181	0.826 ± 0.166	0.798 ± 0.158	0.800 ± 0.176	0.790 ± 0.163
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.395 ± 0.139	0.655 ± 0.191	0.636 ± 0.198	0.465 ± 0.116	0.466 ± 0.119	0.342 ± 0.108	0.320 ± 0.086
yeast6	0.419 ± 0.182	0.731 ± 0.231	0.710 ± 0.215	0.380 ± 0.107	0.413 ± 0.098	$0.231 \stackrel{7}{\pm} 0.079$	0.271 ± 0.091
ecoli-0-6-7-vs-5	0.794 ± 0.232	0.893 ± 0.158	0.890 ± 0.164	0.834 ± 0.172	0.840 ± 0.179	0.759 ± 0.209	$0.774 \stackrel{6}{\pm} 0.191$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.680 ± 0.364	0.765 ± 0.309	0.775 ± 0.292	0.632 ± 0.299	0.692 ± 0.318	0.422 ± 0.196	0.582 ± 0.269
ecoli-0-1-3-7-vs-2-6	0.465 ± 0.340	0.377 ± 0.474	0.380 ± 0.465	0.499 ± 0.355	0.432 ± 0.336	0.396 ± 0.309	0.322 ± 0.291
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.479 ± 0.096	0.762 ± 0.116	0.762 ± 0.117	0.697 ± 0.104	0.689 ± 0.102	0.654 ± 0.147	0.573 ± 0.165
ecoli-0-1-4-7-vs-5-6	0.611 ± 0.150	0.872 ± 0.139	0.871 ± 0.135	0.904 ± 0.126	0.863 ± 0.152	0.821 ± 0.163	0.783 ± 0.180
yeast5	0.703 ± 0.162	0.769 ± 0.136	0.767 ± 0.133	0.595 ± 0.095	0.631 ± 0.106	0.511 ± 0.085	0.582 ± 0.108
shuttle- $c2$ - vs - $c4$	1.000 ± 0.000	$1.4,5,6,7$ 1.000 ± 0.000	1.4,5,6,7 1.000 ± 0.000	$1.000 \stackrel{6}{\pm} 0.000$	1.000 ± 0.000	1.000 ± 0.000	$1.000 \stackrel{6}{\pm} 0.000$
$ecoli\mbox{-}0\mbox{-}1\mbox{-}4\mbox{-}7\mbox{-}vs\mbox{-}2\mbox{-}3\mbox{-}5\mbox{-}6$	0.611 ± 0.157	0.871 ± 0.141	0.857 ± 0.140	0.865 ± 0.140	0.871 ± 0.153	0.679 ± 0.212	0.677 ± 0.202
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.363 ± 0.130	0.585 ± 0.298	0.589 ± 0.289	0.476 ± 0.168	0.424 ± 0.157	0.350 ± 0.150	0.255 ± 0.097
yeast-1-vs-7	0.333 ± 0.141	0.437 ± 0.455	0.450 ± 0.441	0.201 ± 0.084	0.167 ± 0.071	0.154 ± 0.041	0.139 ± 0.034
yeast - 1 - 2 - 8 - 9 - vs - 7	0.212 ± 0.140	0.440 ± 0.462	0.542 ± 0.444	0.151 ± 0.071	0.138 ± 0.044	0.083 ± 0.026	0.077 ± 0.020
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.655 ± 0.218	0.903 ± 0.157	0.890 ± 0.170	0.849 ± 0.147	0.836 ± 0.145	0.789 ± 0.167	0.797 ± 0.159
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.302 ± 0.304	0.295 ± 0.407	0.322 ± 0.391	0.221 ± 0.084	0.230 ± 0.085	$0.167 \stackrel{1}{\pm} 0.038$	0.189 ± 0.060
yeast-2-vs-4	0.709 ± 0.097	0.795 ± 0.097	0.789 ± 0.099	0.850 ± 0.097	0.856 ± 0.099	0.789 ± 0.134	0.759 ± 0.122
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.808 ± 0.318	$0.840 \stackrel{1}{\pm} 0.290$	$0.837 \stackrel{1}{\pm} 0.295$	0.677 ± 0.400	0.730 ± 0.403	0.464 ± 0.324	0.596 ± 0.374
glass2	0.172 ± 0.228	0.308 ± 0.422	0.338 ± 0.413	$0.223 \stackrel{6}{\pm} 0.107$	0.243 ± 0.096	0.150 ± 0.052	$0.188 \stackrel{6}{\pm} 0.051$
yeast-2-vs-8	0.442 ± 0.271	0.888 ± 0.236	0.908 ± 0.200	0.913 ± 0.179	0.896 ± 0.204	0.851 ± 0.213	0.641 ± 0.272
vowel0	0.911 ± 0.067	0.909 ± 0.063	0.909 ± 0.065	0.895 ± 0.079	0.912 ± 0.074	0.909 ± 0.075	0.922 ± 0.074
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	0.908 ± 0.169	0.908 ± 0.169	0.908 ± 0.169	0.943 ± 0.209	$0.960 \stackrel{4}{\pm} 0.195$	$0.867 \stackrel{4}{\pm} 0.260$	0.893 ± 0.248
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.258 ± 0.269	0.314 ± 0.422	0.314 ± 0.411	$0.212 \stackrel{6}{\pm} 0.082$	0.218 ± 0.089	0.144 ± 0.045	0.180 ± 0.066
yeast4	0.330 ± 0.134	0.579 ± 0.253	0.564 ± 0.256	0.302 ± 0.080	0.313 ± 0.095	0.193 ± 0.041	0.191 ± 0.039
ecoli-0-4- 6 - vs - 5	0.744 ± 0.193	0.881 ± 0.165	0.860 ± 0.162	0.832 ± 0.165	0.813 ± 0.178	0.807 ± 0.166	0.816 ± 0.179
page-blocks-1-3-vs-4	0.908 ± 0.102	0.939 ± 0.084	$0.940 \stackrel{1}{\pm} 0.083$	0.732 ± 0.231	$0.935 \stackrel{1}{\pm} 0.170$	0.772 ± 0.215	0.926 ± 0.132
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	$0.709 \stackrel{4.6}{\pm} 0.082$	0.854 ± 0.083	0.854 ± 0.083	0.829 ± 0.073	0.827 ± 0.074	0.817 ± 0.087	0.811 ± 0.078
ecoli-0-1-vs-2-3-5	0.627 ± 0.198	0.816 ± 0.168	0.809 ± 0.168	0.955 ± 0.092	0.944 ± 0.102	$0.736 \stackrel{1}{\pm} 0.197$	0.771 ± 0.184
ecoli-0-6-7-vs-3-5	0.735 ± 0.236	0.880 ± 0.195	0.875 ± 0.195	0.817 ± 0.187	0.780 ± 0.201	$0.745 \stackrel{1}{\pm} 0.216$	0.699 ± 0.236
ecoli-0-3-4-7-vs-5-6	0.692 ± 0.154	0.911 ± 0.113	0.908 ± 0.117	0.825 ± 0.146	$0.803 \stackrel{7}{\pm} 0.137$	0.784 ± 0.146	0.746 ± 0.150
ecoli-0-2-6-7-vs-3-5	0.722 ± 0.252	0.855 ± 0.230	0.855 ± 0.230	0.797 ± 0.198	0.802 ± 0.193	$0.721 \stackrel{1}{\pm} 0.233$	0.656 ± 0.226
shuttle-c0-vs-c4	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	$1.000 \stackrel{7}{\pm} 0.000$	1.000 ± 0.000
ecoli-0-3-4-vs-5	0.738 ± 0.200	$0.887 \stackrel{-}{\pm} 0.165$	0.885 ± 0.169	0.847 ± 0.156	0.845 ± 0.193	0.844 ± 0.163	0.843 ± 0.189
	<u> </u>	1	1	1	1	1	1

Table 5: Results for Precision metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	3.171	5.707	5.537	4.366	4.463	2.390	2.366
	7	1,4,5,6,7	1,4,5,6,7	1,6,7	1,6,7	_	_

Table 6: Results for mean ranks according to Precision metric

Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.717 ± 0.277	0.740 ± 0.211	0.747 ± 0.214	0.637 ± 0.290	0.650 ± 0.298	0.660 ± 0.292	0.737 ± 0.262
ecoli-0-2-3-4- vs -5	0.730 ± 0.179	0.735 ± 0.183	0.735 ± 0.183	0.825 ± 0.167	0.845 ± 0.157	$0.825 \stackrel{-}{\pm} 0.167$	0.845 ± 0.157
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.243 ± 0.247	$0.158 \stackrel{-}{\pm} 0.225$	0.163 ± 0.224	0.715 ± 0.220	0.745 ± 0.220	0.840 ± 0.226	0.872 ± 0.192
ecoli-0-1-vs-5	0.655 ± 0.205	0.710 ± 0.202	0.720 ± 0.210	0.805 ± 0.160	0.815 ± 0.156	0.825 ± 0.160	0.830 ± 0.153
yeast-1-4-5-8-vs-7	0.140 ± 0.157	$0.003 \stackrel{1}{\pm} 0.023$	0.003 ± 0.023	0.407 ± 0.173	0.403 ± 0.173	0.640 ± 0.192	0.627 ± 0.190
ecoli4	0.755 ± 0.183	0.755 ± 0.203	0.770 ± 0.205	0.845 ± 0.172	0.855 ± 0.194	0.875 ± 0.160	0.870 ± 0.181
$led 7 digit \hbox{-} 0\hbox{-} 2\hbox{-} 4\hbox{-} 5\hbox{-} 6\hbox{-} 7\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 1$	0.782 ± 0.143	0.801 ± 0.144	0.801 ± 0.144	0.312 ± 0.185	0.323 ± 0.181	0.823 ± 0.160	0.835 ± 0.173
glass5	$0.670 \overset{4.5}{\pm} 0.382$	0.680 ± 0.384	0.700 ± 0.374	0.830 ± 0.293	0.840 ± 0.290	0.870 ± 0.260	0.880 ± 0.256
ecoli-0-3-4-6-vs-5	0.680 ± 0.218	0.700 ± 0.239	0.715 ± 0.234	0.820 ± 0.187	0.835 ± 0.170	0.830 ± 0.189	0.845 ± 0.172
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.412 ± 0.159	0.337 ± 0.155	0.343 ± 0.160	0.677 ± 0.103	0.681 ± 0.102	0.798 ± 0.132	0.800 ± 0.132
yeast6	0.477 ± 0.182	0.460 ± 0.169	0.469 ± 0.166	0.700 ± 0.178	0.680 ± 0.177	0.754 ± 0.156	0.726 ± 0.168
ecoli-0-6-7-vs-5	0.705 ± 0.243	0.750 ± 0.229	0.750 ± 0.229	0.755 ± 0.209	0.755 ± 0.203	0.760 ± 0.211	0.775 ± 0.207
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.660 ± 0.366	$0.730 \stackrel{1}{\pm} 0.319$	$0.760 \stackrel{1}{\pm} 0.303$	0.780 ± 0.302	0.790 ± 0.317	0.810 ± 0.280	0.840 ± 0.272
ecoli-0-1-3-7-vs-2-6	0.660 ± 0.417	0.310 ± 0.410	$0.320 \stackrel{1}{\pm} 0.409$	0.700 ± 0.400	0.700 ± 0.400	$0.700 \stackrel{1}{\pm} 0.400$	$0.700 \stackrel{1}{\pm} 0.400$
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.512 ± 0.097	0.479 ± 0.087	$0.487 \stackrel{-}{\pm} 0.088$	0.567 ± 0.115	0.577 ± 0.110	0.583 ± 0.133	0.614 ± 0.131
ecoli-0-1-4-7-vs-5-6	0.656 ± 0.200	0.656 ± 0.169	0.684 ± 0.192	0.784 ± 0.182	0.800 ± 0.160	0.792 ± 0.191	0.832 ± 0.161
yeast5	0.648 ± 0.170	0.636 ± 0.152	0.645 ± 0.137	0.901 ± 0.098	0.883 ± 0.113	0.924 ± 0.095	0.892 ± 0.113
shuttle- $c2$ - vs - $c4$	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.990 ± 0.069	0.990 ± 0.069	$0.990 \stackrel{all}{\pm} 0.069$	0.990 ± 0.069
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.632 ± 0.180	0.625 ± 0.185	0.638 ± 0.185	0.727 ± 0.166	0.727 ± 0.163	0.737 ± 0.158	0.741 ± 0.162
y east - 0 - 3 - 5 - 9 - vs - 7 - 8	0.394 ± 0.146	0.204 ± 0.114	0.218 ± 0.110	0.358 ± 0.151	0.406 ± 0.150	0.484 ± 0.191	0.640 ± 0.175
yeast-1-vs-7	0.393 ± 0.190	0.097 ± 0.100	0.113 ± 0.112	0.510 ± 0.217	0.490 ± 0.219	0.703 ± 0.177	0.707 ± 0.209
yeast-1-2-8-9- vs -7	0.280 ± 0.168	$0.107 \stackrel{-}{\pm} 0.119$	0.133 ± 0.115	0.417 ± 0.164	0.427 ± 0.138	0.610 ± 0.184	0.653 ± 0.188
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.615 ± 0.188	0.685 ± 0.178	0.700 ± 0.173	0.795 ± 0.155	0.810 ± 0.162	0.810 ± 0.154	0.825 ± 0.160
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.262 ± 0.252	0.152 ± 0.223	0.177 ± 0.222	0.695 ± 0.247	0.763 ± 0.249	0.870 ± 0.174	0.877 ± 0.220
yeast-2-vs-4	0.722 ± 0.132	0.691 ± 0.138	0.699 ± 0.126	0.717 ± 0.135	0.717 ± 0.134	0.757 ± 0.155	0.780 ± 0.158
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.820 ± 0.328	0.830 ± 0.310	0.830 ± 0.310	0.600 ± 0.374	0.590 ± 0.370	0.700 ± 0.346	0.640 ± 0.361
glass2	0.187 ± 0.238	0.117 ± 0.153	0.143 ± 0.159	0.642 ± 0.258	0.720 ± 0.215	$0.812 \stackrel{5}{\pm} 0.227$	0.855 ± 0.210
yeast-2-vs-8	0.435 ± 0.233	0.510 ± 0.239	0.530 ± 0.227	0.555 ± 0.219	0.550 ± 0.229	0.570 ± 0.218	0.565 ± 0.233
vowel0	0.936 ± 0.055	0.927 ± 0.059	$0.928 \stackrel{1}{\pm} 0.060$	0.693 ± 0.116	0.668 ± 0.134	0.778 ± 0.130	0.760 ± 0.126
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.830 ± 0.275	0.850 ± 0.269	$0.830 \stackrel{4.5}{\pm} 0.275$	0.850 ± 0.269
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.213 ± 0.216	0.157 ± 0.218	0.167 ± 0.222	0.660 ± 0.249	0.707 ± 0.252	0.830 ± 0.232	0.862 ± 0.239
yeast4	0.364 ± 0.141	0.201 ± 0.114	0.212 ± 0.122	0.597 ± 0.154	0.585 ± 0.158	0.755 ± 0.148	0.785 ± 0.138
ecoli-0-4-6- vs -5	0.660 ± 0.210	0.710 ± 0.208	0.720 ± 0.210	0.815 ± 0.164	0.840 ± 0.156	0.815 ± 0.164	0.845 ± 0.157
page-blocks-1-3-vs-4	0.918 ± 0.131	0.959 ± 0.106	0.967 ± 0.102	0.469 ± 0.192	0.657 ± 0.224	0.660 ± 0.214	0.781 ± 0.168
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.721 ± 0.102	0.763 ± 0.091	0.769 ± 0.090	0.820 ± 0.076	$0.821 \stackrel{4}{\pm} 0.072$	$0.818 \stackrel{4}{\pm} 0.075$	0.823 ± 0.075
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.615 ± 0.230	$0.638 \stackrel{1}{\pm} 0.209$	$0.642 \stackrel{1}{\pm} 0.210$	0.723 ± 0.173	0.727 ± 0.177	0.731 ± 0.181	0.745 ± 0.181
ecoli-0-6-7-vs-3-5	0.671 ± 0.250	0.682 ± 0.226	0.699 ± 0.217	0.673 ± 0.205	0.686 ± 0.201	0.713 ± 0.195	0.717 ± 0.195
ecoli-0-3-4-7-vs-5-6	0.728 ± 0.182	0.732 ± 0.177	0.744 ± 0.165	0.780 ± 0.166	0.792 ± 0.149	$0.812 \stackrel{4}{\pm} 0.166$	$0.820 \stackrel{4}{\pm} 0.156$
ecoli-0-2-6-7-vs-3-5	0.659 ± 0.255	0.679 ± 0.233	0.679 ± 0.233	0.693 ± 0.215	0.704 ± 0.193	0.726 ± 0.198	0.722 ± 0.195
shuttle-c0-vs-c4	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.996 ± 0.012	0.996 ± 0.012	$0.996 \stackrel{1}{\pm} 0.012$	0.996 ± 0.012
ecoli- 0 - 3 - 4 - vs - 5	0.690 ± 0.237	0.750 ± 0.229	0.750 ± 0.229	0.825 ± 0.219	0.840 ± 0.222	0.830 ± 0.214	0.840 ± 0.216
	<u> </u>	<u> </u>	<u> </u>	1,2,3	1,2,3	1,2,3	1,2,3

Table 7: Results for Recall metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.671	2.415	3.232	3.744	4.390	5.402	6.146
	_	_	1,2	1,2	1,2,3,4	1,2,3,4,5	all

Table 8: Results for mean ranks according to Recall metric

Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.846 ± 0.136	0.863 ± 0.106	0.866 ± 0.108	0.793 ± 0.148	0.802 ± 0.152	0.795 ± 0.148	0.844 ± 0.133
ecoli - 0 - 2 - 3 - 4 - vs - 5	0.850 ± 0.087	0.862 ± 0.093	0.862 ± 0.093	0.903 ± 0.084	0.912 ± 0.078	0.901 ± 0.083	0.910 ± 0.078
glass-0-1-6-vs-2	0.582 ± 0.128	0.573 ± 0.114	0.574 ± 0.114	0.725 ± 0.110	0.745 ± 0.106	$0.686 \stackrel{1}{\pm} 0.107$	0.741 ± 0.087
ecoli-0-1- vs -5	0.814 ± 0.099	0.851 ± 0.099	0.856 ± 0.104	0.900 ± 0.079	0.904 ± 0.078	0.906 ± 0.080	0.909 ± 0.077
yeast-1-4-5-8-vs-7	0.546 ± 0.078	0.501 ± 0.011	0.501 ± 0.011	0.620 ± 0.090	0.618 ± 0.090	0.648 ± 0.090	0.642 ± 0.097
ecoli4	0.868 ± 0.091	0.872 ± 0.101	0.879 ± 0.102	0.919 ± 0.085	0.922 ± 0.097	0.930 ± 0.077	0.926 ± 0.089
led7digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	0.881 ± 0.072	0.880 ± 0.072	$0.881 \stackrel{1}{\pm} 0.072$	0.647 ± 0.093	0.650 ± 0.091	0.893 ± 0.079	0.897 ± 0.084
glass5	0.831 ± 0.189	0.837 ± 0.191	0.847 ± 0.185	0.905 ± 0.143	0.913 ± 0.143	0.906 ± 0.129	0.920 ± 0.128
ecoli-0-3-4-6-vs-5	0.821 ± 0.111	0.844 ± 0.122	0.851 ± 0.119	0.899 ± 0.096	0.905 ± 0.088	$0.902 \stackrel{4}{\pm} 0.098$	0.909 ± 0.090
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.670 ± 0.077	$0.658 \stackrel{1}{\pm} 0.075$	$0.660 \stackrel{1}{\pm} 0.078$	0.792 ± 0.048	0.793 ± 0.046	0.802 ± 0.056	0.798 ± 0.057
yeast6	0.729 ± 0.089	$0.727 \stackrel{-}{\pm} 0.084$	0.731 ± 0.082	0.835 ± 0.088	0.828 ± 0.087	0.843 ± 0.073	0.837 ± 0.080
ecoli-0-6-7-vs-5	0.842 ± 0.121	0.870 ± 0.116	0.870 ± 0.116	0.869 ± 0.106	0.869 ± 0.103	0.865 ± 0.109	0.874 ± 0.106
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.822 ± 0.182	0.859 ± 0.155	0.873 ± 0.148	0.875 ± 0.151	0.885 ± 0.160	0.872 ± 0.140	0.902 ± 0.137
ecoli-0-1-3-7-vs-2-6	0.820 ± 0.209	0.653 ± 0.206	0.657 ± 0.205	0.839 ± 0.199	0.834 ± 0.200	0.834 ± 0.196	0.824 ± 0.194
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.725 ± 0.050	0.731 ± 0.044	0.735 ± 0.045	0.769 ± 0.057	0.774 ± 0.054	0.771 ± 0.059	0.775 ± 0.059
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	0.809 ± 0.095	0.823 ± 0.085	0.837 ± 0.095	0.888 ± 0.090	0.894 ± 0.080	0.887 ± 0.095	0.904 ± 0.079
yeast5	0.819 ± 0.085	0.815 ± 0.076	0.819 ± 0.068	0.941 ± 0.049	0.933 ± 0.056	0.948 ± 0.047	0.936 ± 0.056
shuttle- $c2$ - vs - $c4$	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.995 ± 0.034	0.995 ± 0.034	0.995 ± 0.034	0.995 ± 0.034
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.796 ± 0.092	0.807 ± 0.092	0.813 ± 0.092	0.857 ± 0.083 $1.2.3.6.7$	0.857 ± 0.081 $1.2.3.6.7$	0.848 ± 0.084	0.849 ± 0.081
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.656 ± 0.070	0.595 ± 0.056	0.600 ± 0.055	0.655 ± 0.069	0.669 ± 0.071	0.683 ± 0.073 $1,2,3,4$	0.705 ± 0.066
yeast-1- vs -7	$0.669 \pm 0.095 \\ 2,3$	0.546 ± 0.050	0.553 ± 0.057	0.680 ± 0.106	0.659 ± 0.105 2.3	$0.712 \pm 0.077 \\ 1,2,3,4,5$	0.698 ± 0.095
yeast-1-2-8-9- vs -7	0.622 ± 0.082	0.552 ± 0.059	0.566 ± 0.057	0.668 ± 0.082 $1,2,3$	0.669 ± 0.068 $1,2,3$	0.693 ± 0.090	0.697 ± 0.089 $1,2,3$
ecoli-0-1-4-6- vs -5	0.792 ± 0.090	0.839 ± 0.090	0.846 ± 0.088	0.891 ± 0.077 $1,2,3$	0.898 ± 0.080 $1,2,3$	0.895 ± 0.077 $1,2,3,4$	0.903 ± 0.079 $1,2,3$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.592 ± 0.127	0.568 ± 0.109	0.579 ± 0.109	0.713 ± 0.127 $1,2,3$	0.741 ± 0.126 $1,2,3,6$	0.694 ± 0.081 $1,2,3$	0.730 ± 0.112 $1,2,3,6$
yeast-2-vs-4	0.844 ± 0.064	0.835 ± 0.068	0.838 ± 0.062	0.851 ± 0.067	0.851 ± 0.066	0.866 ± 0.074	0.874 ± 0.074 $1,2,3,4$
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.899 ± 0.171 $4,5,6,7$	0.907 ± 0.159 $4,5,6,7$	0.907 ± 0.160 $4,5,6,7$	0.789 ± 0.189	0.788 ± 0.189	0.797 ± 0.181	0.796 ± 0.187
glass2	0.561 ± 0.118	0.552 ± 0.077	0.564 ± 0.079	0.720 ± 0.130 $1,2,3$	0.757 ± 0.118 $1,2,3,4,6$	0.701 ± 0.116 $1,2,3$	0.764 ± 0.107 $1,2,3,4,6$
yeast-2-vs-8	0.704 ± 0.113	0.754 ± 0.119	0.764 ± 0.113	0.776 ± 0.110	0.773 ± 0.115	0.781 ± 0.111	0.771 ± 0.114 $1,3$
vowel0	0.963 ± 0.028 $4,5,6,7$	0.958 ± 0.029 $4.5.6.7$	0.959 ± 0.029 $4,5,6,7$	0.842 ± 0.057	0.830 ± 0.065	0.885 ± 0.064 4.5	0.876 ± 0.061 4.5
glass-0-4-vs-5	0.992 ± 0.016 $6,7$	0.992 ± 0.016 $6,7$	0.992 ± 0.016 $6,7$	0.913 ± 0.140	0.925 ± 0.134	0.906 ± 0.143	0.919 ± 0.138
glass- 0 - 1 - 4 - 6 - vs - 2	0.573 ± 0.117	0.571 ± 0.110	0.575 ± 0.112	$0.714 \stackrel{\circ}{\pm} 0.124$ $1,2,3$	$0.735 \stackrel{*}{\pm} 0.126$ 1,2,3,6	0.688 ± 0.108 $1,2,3$	0.748 ± 0.124 $1,2,3,4,6$
yeast4	0.668 ± 0.071	0.597 ± 0.056	0.603 ± 0.061	0.772 ± 0.074 $1,2,3$	0.768 ± 0.078	0.819 ± 0.066	$0.831 \pm 0.064 \\ 1,2,3,4,5$
ecoli-0-4-6- vs -5	0.814 ± 0.102	0.848 ± 0.104	0.852 ± 0.104	0.897 ± 0.085 $1,2,3$	0.907 ± 0.083 $1,2,3$ $1,2,3$	0.895 ± 0.084 $1,2,3$ $1,2,3$	0.910 ± 0.082 $1,2,3$
page-blocks-1-3-vs-4	0.956 ± 0.064 $4,5,6,7$	0.978 ± 0.053 1,4,5,6,7	0.981 ± 0.051 $1,4,5,6,7$	0.728 ± 0.095	0.828 ± 0.112 ₄	0.821 ± 0.105 ₄	0.888 ± 0.085 $4,5,6$
yeast-0-2-5-7-9-vs-3-6-8	0.844 ± 0.051	0.874 ± 0.045	0.877 ± 0.045 ₁	0.900 ± 0.038 $1,2,3$	0.901 ± 0.036 $1,2,3$	0.898 ± 0.037 $1,2,3$	0.901 ± 0.037 $1,2,3$
ecoli-0-1-vs-2-3-5	0.786 ± 0.114	0.811 ± 0.105	0.813 ± 0.106	0.859 ± 0.086 1,2,3,6,7	0.861 ± 0.088 $1,2,3,6,7$	0.848 ± 0.093 $1,2,3$	0.858 ± 0.090 $1,2,3$
ecoli-0-6-7-vs-3-5	0.821 ± 0.123	0.836 ± 0.113 $1,4,5,7$	0.844 ± 0.109 $1,4,5,6,7$	0.827 ± 0.104	0.831 ± 0.104	0.840 ± 0.103 2.7	0.836 ± 0.103
ecoli-0-3-4-7-vs-5-6	0.843 ± 0.085	0.862 ± 0.088 1	0.867 ± 0.081	0.880 ± 0.084 ₁	0.884 ± 0.076 ₁	0.893 ± 0.085	0.893 ± 0.080 ₁
ecoli-0-2-6-7-vs-3-5	0.813 ± 0.129 $-$	0.832 ± 0.118 ₁	0.832 ± 0.118 ₁	0.836 ± 0.110 $1,7$	0.842 ± 0.100 $1,7$	0.843 ± 0.104 7	0.834 ± 0.102 $2,3$
shuttle-c0-vs-c4	1.000 ± 0.000 -	1.000 ± 0.000 -	1.000 ± 0.000 -	0.998 ± 0.006 -	0.998 ± 0.006 -	0.998 ± 0.006 -	0.998 ± 0.006 -
ecoli-0-3-4-vs-5	0.828 ± 0.116 $-$	0.869 ± 0.115	0.868 ± 0.115 ₁	0.903 ± 0.109 $1,2,3$	$0.911 \pm 0.112 \\ 1,2,3$	0.905 ± 0.107 $1,2,3$	$0.911 \pm 0.109 \\ 1,2,3$
				,2,0	,2,0	-,2,0	-,2,0

Table 9: Results for AUC metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.537	2.598	3.439	4.110	4.805	4.829	5.683
	_	_	1,2	1,2	1,2,3,4	1,2,3,4	all

Table 10: Results for mean ranks according to AUC metric

Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.813 ± 0.193	0.845 ± 0.124	0.848 ± 0.126	0.735 ± 0.253	0.745 ± 0.259	0.748 ± 0.237	0.812 ± 0.207
ecoli-0-2-3-4-vs-5	0.834 ± 0.109	0.845 ± 0.115	0.845 ± 0.115	0.894 ± 0.094	$0.905 \stackrel{4}{\pm} 0.087$	0.892 ± 0.094	0.904 ± 0.087
glass-0-1-6-vs-2	0.358 ± 0.310	$0.240 \stackrel{1}{\pm} 0.315$	0.250 ± 0.315	0.713 ± 0.119	0.733 ± 0.116	0.655 ± 0.102	0.718 ± 0.090
ecoli-0-1- vs -5	0.788 ± 0.125	0.830 ± 0.124	0.835 ± 0.128	0.890 ± 0.091	0.895 ± 0.088	0.898 ± 0.090	0.901 ± 0.086
yeast-1-4-5-8-vs-7	0.261 ± 0.254	$0.008 \stackrel{1}{\pm} 0.057$	0.008 ± 0.057	0.565 ± 0.144	0.562 ± 0.146	0.638 ± 0.096	0.633 ± 0.099
ecoli4	0.854 ± 0.106	0.855 ± 0.124	0.863 ± 0.125	0.911 ± 0.097	0.913 ± 0.116	0.924 ± 0.088	0.917 ± 0.106
led7digit-0-2-4-5-6-7-8-9-vs-1	0.871 ± 0.081	0.872 ± 0.080	0.873 ± 0.081	0.510 ± 0.216	0.527 ± 0.194	0.885 ± 0.094	0.889 ± 0.104
glass5	0.729 ± 0.364	0.735 ± 0.366	0.755 ± 0.352	0.865 ± 0.248	0.874 ± 0.248	0.880 ± 0.210	0.894 ± 0.211
ecoli-0-3-4-6- vs -5	0.796 ± 0.143	0.818 ± 0.154	0.827 ± 0.149	0.890 ± 0.109	$0.897 \stackrel{4}{\pm} 0.098$	0.893 ± 0.110	0.902 ± 0.100
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	0.605 ± 0.121	$0.557 \stackrel{1}{\pm} 0.136$	0.560 ± 0.140	0.780 ± 0.057	0.782 ± 0.054	0.796 ± 0.058	0.792 ± 0.060
yeast6	$0.670 \stackrel{2}{\pm} 0.136$	0.663 ± 0.131	0.670 ± 0.129	0.817 ± 0.109	0.807 ± 0.110	0.833 ± 0.085	0.822 ± 0.098
ecoli-0-6-7-vs-5	0.811 ± 0.182	0.850 ± 0.143	0.850 ± 0.143	0.852 ± 0.129	0.853 ± 0.126	0.849 ± 0.131	0.860 ± 0.127
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	0.729 ± 0.343	0.803 ± 0.271	0.828 ± 0.248	0.833 ± 0.248	$0.836 \stackrel{6}{\pm} 0.277$	0.842 ± 0.215	0.873 ± 0.217
ecoli-0-1-3-7-vs-2-6	0.695 ± 0.405	$0.347 \stackrel{-}{\pm} 0.434$	0.361 ± 0.434	0.733 ± 0.383	$0.729 \stackrel{4}{\pm} 0.380$	0.728 ± 0.380	0.720 ± 0.375
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	0.690 ± 0.067	0.683 ± 0.063	0.689 ± 0.063	0.738 ± 0.077	0.745 ± 0.074	0.742 ± 0.081	0.752 ± 0.077
ecoli-0-1-4-7-vs-5-6	0.784 ± 0.121	0.799 ± 0.109	0.814 ± 0.120	0.875 ± 0.107	0.884 ± 0.090	0.874 ± 0.115	0.896 ± 0.090
yeast5	0.793 ± 0.113	0.789 ± 0.097	0.796 ± 0.084	0.938 ± 0.053	0.930 ± 0.061	0.946 ± 0.050	0.933 ± 0.062
shuttle-c2-vs-c4	1.000 ± 0.000	1.000 ± 0.000	1.000 ± 0.000	0.994 ± 0.041	0.994 ± 0.041	0.994 ± 0.041	0.994 ± 0.041
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	0.770 ± 0.117	0.776 ± 0.128	0.784 ± 0.125	0.841 ± 0.101	0.841 ± 0.099	0.835 ± 0.098	0.836 ± 0.095
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	0.588 ± 0.119	0.411 ± 0.177	0.431 ± 0.168	0.565 ± 0.142	0.598 ± 0.135	0.629 ± 0.145	0.689 ± 0.089
yeast-1- vs -7	0.582 ± 0.181	0.222 ± 0.216	0.248 ± 0.226	0.641 ± 0.140	0.614 ± 0.160	0.702 ± 0.083	0.686 ± 0.101
yeast-1-2-8-9- vs -7	0.475 ± 0.209	0.228 ± 0.233	0.288 ± 0.223	0.606 ± 0.127	0.614 ± 0.105	0.678 ± 0.114	0.687 ± 0.100
ecoli- 0 - 1 - 4 - 6 - vs - 5	0.756 ± 0.151	0.817 ± 0.114	0.826 ± 0.107	0.881 ± 0.088	0.888 ± 0.091	0.886 ± 0.087	0.895 ± 0.089
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	0.389 ± 0.300	0.233 ± 0.306	0.276 ± 0.309	0.693 ± 0.163	0.721 ± 0.161	0.662 ± 0.077	0.698 ± 0.141
yeast-2- vs -4	0.831 ± 0.076	0.818 ± 0.086	0.823 ± 0.077	0.836 ± 0.078	0.837 ± 0.078	0.854 ± 0.086	0.864 ± 0.085
glass-0-6-vs-5	0.846 ± 0.301 $4,5,6,7$	0.862 ± 0.277	0.862 ± 0.277 $4,5,6,7$	0.676 ± 0.362	0.674 ± 0.361	0.733 ± 0.300	0.707 ± 0.337
glass2	0.276 ± 0.311	0.208 ± 0.267	0.253 ± 0.276	0.684 ± 0.208 $1,2,3$	0.742 ± 0.156 $1,2,3,4,6$	0.677 ± 0.136 $1,2,3$	0.750 ± 0.108 $1,2,3,4,6$
yeast-2-vs-8	0.598 ± 0.252	0.683 ± 0.207	0.704 ± 0.181	0.728 ± 0.153	0.718 ± 0.181	0.737 ± 0.152	0.720 ± 0.178 $1,3,5$
vowel0	$0.962 \pm 0.029 4,5,6,7$	0.957 ± 0.030 $4,5,6,7$	0.958 ± 0.031 $4,5,6,7$	0.826 ± 0.069	0.810 ± 0.080	0.875 ± 0.074	0.865 ± 0.070
glass-0-4-vs-5	0.991 ± 0.017 $6,7$	0.991 ± 0.017 $6,7$	0.991 ± 0.017 $6,7$	0.883 ± 0.221	0.896 ± 0.219	0.877 ± 0.220	0.891 ± 0.219
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	0.336 ± 0.298	0.244 ± 0.308	0.257 ± 0.313	0.691 ± 0.161 $1,2,3,6$	0.708 ± 0.186 $1,2,3,6$	0.653 ± 0.131 $1,2,3$	0.721 ± 0.153 $1,2,3,6$
yeast4	0.581 ± 0.126	0.424 ± 0.140	0.435 ± 0.146	0.745 ± 0.097 $1,2,3$	0.738 ± 0.106	0.811 ± 0.077	0.826 ± 0.072 $1,2,3,4,5$
ecoli-0-4-6- vs -5	0.787 ± 0.136	0.827 ± 0.131	0.831 ± 0.130	0.888 ± 0.095 $1,2,3$	0.901 ± 0.091 $1,2,3$ $1,2,3$	0.887 ± 0.094 $1,2,3$ $1,2,3$	0.904 ± 0.091 $1,2,3$
page-blocks-1-3-vs-4	0.952 ± 0.072 $4,5,6,7$	$0.976 \pm 0.059 \\ 1,4,5,6,7$	0.979 ± 0.057 $1,4,5,6,7$	0.660 ± 0.165	0.791 ± 0.173	0.794 ± 0.133	0.877 ± 0.097 $4,5,6$
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	0.832 ± 0.061	0.865 ± 0.052	0.869 ± 0.051	0.896 ± 0.041 $1,2,3$	0.896 ± 0.040 $1,2,3$	0.894 ± 0.041 $1,2,3$	0.896 ± 0.040 $1,2,3$
ecoli- 0 - 1 - vs - 2 - 3 - 5	0.746 ± 0.175	0.780 ± 0.139	0.782 ± 0.140	0.842 ± 0.105 $1,2,3,6$	$0.843 \pm 0.108 \\ 1,2,3,6,7$	0.833 ± 0.110 $1,2,3$	$0.843 \pm 0.108 \\ 1,2,3,4$
ecoli-0-6-7-vs-3-5	0.780 ± 0.206	0.803 ± 0.174	0.814 ± 0.168	0.802 ± 0.130	0.809 ± 0.128	0.822 ± 0.125	0.819 ± 0.124 2.3
ecoli-0-3-4-7- vs -5-6	0.828 ± 0.102	0.845 ± 0.105	0.853 ± 0.096	0.869 ± 0.096	0.875 ± 0.086	0.884 ± 0.095	0.886 ± 0.088
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	0.771 ± 0.207	0.799 ± 0.178	0.799 ± 0.178	0.812 ± 0.140	0.822 ± 0.123	0.826 ± 0.125	$0.818 \pm 0.122 \\ 2,3,4$
shuttle-c0-vs-c4	1.000 ± 0.000	1.000 ± 0.000	$1.000 \stackrel{1}{\pm} 0.000$	0.998 ± 0.006	0.998 ± 0.006	0.998 ± 0.006	0.998 ± 0.006
ecoli-0-3-4-vs-5	0.802 ± 0.148	0.849 ± 0.142	0.849 ± 0.142	0.889 ± 0.132	0.892 ± 0.169	0.892 ± 0.130	0.893 ± 0.166
	-	1	1	1,2,3	1,2,3	1,2,3	1,2,3

Table 11: Results for GMEAN metric $\,$

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	2.585	2.500	3.256	4.049	4.805	5.000	5.805
	_	_	1,2	1,2	1,2,3,4	1,2,3,4	all

Table 12: Results for mean ranks according to GMEAN metric