Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
glass4	0.846 ± 0.136	$0.853 \pm 0.140$	$0.853 \pm 0.140$	$0.822 \pm 0.165$	$0.820 \pm 0.156$	$0.827 \pm 0.149$	$0.826 \pm 0.152$
ecoli - 0 - 2 - 3 - 4 - vs - 5	$0.850 \stackrel{5}{\pm} 0.087$	$0.852 \pm 0.095$	$0.852 \pm 0.095$	$0.883 \stackrel{-}{\pm} 0.089$	$0.895 \stackrel{-}{\pm} 0.091$	$0.888 \pm 0.084$	$0.895 \pm 0.091$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.582 \pm 0.128$	$0.561 \stackrel{-}{\pm} 0.109$	$0.561 \pm 0.109$	$0.665 \pm 0.124$	$0.667 \pm 0.129$	$0.639 \pm 0.121$	$0.668 \pm 0.119$
ecoli- $0$ - $1$ - $vs$ - $5$	$0.814 \pm 0.099$	$0.863 \stackrel{-}{\pm} 0.095$	$0.863 \pm 0.095$	$0.875 \pm 0.087$	$0.890 \pm 0.089$	$0.891 \pm 0.085$	$0.894 \pm 0.088$
yeast-1-4-5-8- $vs$ -7	$0.546 \pm 0.078$	$0.503 \stackrel{1}{\pm} 0.023$	$0.503 \pm 0.023$	$0.561 \pm 0.077$	$0.553 \pm 0.079$	$0.585 \pm 0.083$	$0.565 \pm 0.090$
ecoli4	$0.868 \pm 0.091$	$0.875 \stackrel{-}{\pm} 0.098$	$0.875 \pm 0.098$	$0.905 \pm 0.095$	$0.912 \pm 0.101$	$0.905 \pm 0.096$	$0.913 \pm 0.097$
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	$0.881 \pm 0.072$	$0.883 \stackrel{-}{\pm} 0.074$	$0.884 \stackrel{-}{\pm} 0.075$	$0.641 \pm 0.085$	$0.643 \pm 0.080$	$0.870 \pm 0.109$	$0.862 \pm 0.109$
glass5	$0.831 \pm 0.189$	$0.805 \pm 0.183$	$0.805 \pm 0.183$	$0.875 \pm 0.172$	$0.886 \pm 0.165$	$0.865 \pm 0.171$	$0.876 \pm 0.172$
ecoli-0-3-4-6-vs-5	$0.821 \pm 0.111$	$0.827 \stackrel{-}{\pm} 0.115$	$0.827 \stackrel{-}{\pm} 0.115$	$0.891 \pm 0.109$	$0.894 \pm 0.105$	$0.894 \pm 0.100$	$0.891 \pm 0.107$
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.670 \pm 0.077$	$0.658 \stackrel{-}{\pm} 0.087$	$0.658 \pm 0.087$	$0.779 \pm 0.062$	$0.768 \pm 0.065$	$0.778 \pm 0.070$	$0.773 \pm 0.070$
yeast6	$0.729 \pm 0.089$	$0.715 \stackrel{-}{\pm} 0.090$	$0.715 \pm 0.090$	$0.799 \pm 0.090$	$0.788 \pm 0.096$	$0.807 \pm 0.081$	$0.792 \pm 0.098$
ecoli- $0$ - $6$ - $7$ - $vs$ - $5$	$0.842 \pm 0.121$	$0.873 \stackrel{-}{\pm} 0.110$	$0.873 \pm 0.110$	$0.871 \pm 0.102$	$0.873 \pm 0.107$	$0.877 \pm 0.101$	$0.870 \pm 0.106$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.822 \pm 0.182$	$0.817 \pm 0.157$	$0.817 \pm 0.157$	$0.842 \pm 0.157$	$0.845 \pm 0.167$	$0.847 \pm 0.157$	$0.850 \pm 0.167$
ecoli-0-1-3-7-vs-2-6	$0.820 \pm 0.209$	$0.722 \pm 0.219$	$0.722 \pm 0.219$	$0.844 \pm 0.200$	$0.842 \pm 0.201$	$0.841 \pm 0.199$	$0.837 \pm 0.198$
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 6 \hbox{-} vs \hbox{-} 3 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9$	$0.725 \pm 0.050$	$0.721 \stackrel{-}{\pm} 0.047$	$0.721 \pm 0.047$	$0.756 \pm 0.055$	$0.754 \pm 0.059$	$0.761 \stackrel{7}{\pm} 0.053$	$0.758 \pm 0.059$
ecoli-0-1-4-7-vs-5-6	$0.809 \pm 0.095$	$0.821 \pm 0.090$	$0.821 \pm 0.090$	$0.868 \pm 0.106$	$0.895 \pm 0.082$	$0.872 \pm 0.098$	$0.896 \pm 0.084$
yeast5	$0.819 \pm 0.085$	$0.816 \pm 0.082$	$0.816 \pm 0.082$	$0.896 \pm 0.063$	$0.910 \pm 0.056$	$0.907 \pm 0.063$	$0.910 \pm 0.058$
shuttle- $c2$ - $vs$ - $c4$	$1.000 \pm 0.000$	$1.000 \stackrel{-}{\pm} 0.000$	$1.000 \pm 0.000$	$0.995 \pm 0.034$	$0.995 \pm 0.034$	$0.995 \pm 0.034$	$0.995 \pm 0.034$
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	$0.796 \pm 0.092$	$0.795 \stackrel{-}{\pm} 0.102$	$0.798 \pm 0.104$	$0.843 \pm 0.094$	$0.852 \pm 0.080$	$0.837 \pm 0.093$	$0.845 \pm 0.081$
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	$0.656 \pm 0.070$	$0.592 \pm 0.060$	$0.593 \pm 0.059$	$0.646 \pm 0.061$	$0.647 \pm 0.074$	$0.655 \pm 0.068$	$0.675 \pm 0.079$
yeast-1- $vs$ -7	$0.669 \pm 0.095$	$0.556 \pm 0.053$	$0.556 \pm 0.053$	$0.661 \pm 0.094$	$0.635 \pm 0.093$	$0.692 \pm 0.095$	$0.659 \pm 0.094$
$yeast\hbox{-} 1\hbox{-} 2\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 7$	$0.622 \pm 0.082$	$0.572 \pm 0.069$	$0.572 \pm 0.069$	$0.632 \pm 0.086$	$0.616 \pm 0.086$	$0.648 \pm 0.098$	$0.653 \pm 0.098$
ecoli- $0$ - $1$ - $4$ - $6$ - $vs$ - $5$	$0.792 \pm 0.090$	$0.819 \pm 0.092$	$0.819 \pm 0.092$	$0.882 \pm 0.075$	$0.885 \pm 0.085$	$0.883 \pm 0.073$	$0.885 \pm 0.085$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.592 \pm 0.127$	$0.562 \pm 0.102$	$0.562 \pm 0.102$	$0.665 \pm 0.115$	$0.684 \pm 0.129$	$0.664 \pm 0.122$	$0.690 \pm 0.133$
yeast-2-vs-4	$0.844 \pm 0.064$	$0.816 \pm 0.073$	$0.816 \pm 0.073$	$0.845 \pm 0.062$	$0.847 \pm 0.067$	$0.853 \pm 0.066$	$0.857 \pm 0.072$
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.899 \pm 0.171$	$0.855 \pm 0.165$	$0.855 \pm 0.165$	$0.823 \pm 0.193$	$0.841 \pm 0.181$	$0.809 \pm 0.197$	$0.845 \pm 0.181$
glass2	$0.561 \pm 0.118$	$0.573 \pm 0.092$	$0.573 \pm 0.092$	$0.668 \pm 0.128$	$0.700 \pm 0.144$ $1,2,3$	$0.680 \pm 0.131$	$0.720 \pm 0.145$ $1,2,3,4$
yeast-2- $vs$ -8	$0.704 \pm 0.113$	$0.701 \pm 0.138$	$0.701 \pm 0.138$	$0.776 \pm 0.110$ $1,2,3,7$	$0.774 \pm 0.115 \\ 1,2,3,7$	$0.782 \pm 0.106$ $1,2,3$	$0.773 \pm 0.114$ $1,2,3$
vowel0	$0.963 \pm 0.028$	$0.946 \pm 0.033$	$0.946 \pm 0.033$ $4.5.6.7$	$0.900 \pm 0.054$	$0.888 \pm 0.051$	$0.918 \pm 0.049$	$0.901 \pm 0.049$
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	$0.992 \pm 0.016  4,5,6,7$	$0.989 \pm 0.021$	$0.989 \pm 0.021$	$0.990 \pm 0.069$ $2,3$	$0.990 \pm 0.069$ $2.3$	$0.989 \pm 0.074$ $2.3$	$0.989 \pm 0.074$ $2,3$
$glass\hbox{-}0\hbox{-}1\hbox{-}4\hbox{-}6\hbox{-}vs\hbox{-}2$	$0.573 \pm 0.117$	$0.570 \pm 0.119$	$0.572 \pm 0.121$	$0.662 \pm 0.131$ $1,2,3$	$0.671 \pm 0.139$ $1,2,3$	$0.665 \pm 0.139$ $1,2,3$	$0.674 \pm 0.160$ $1,2,3$
yeast4	$0.668 \pm 0.071$	$0.599 \pm 0.068$	$0.596 \pm 0.065$	$0.727 \pm 0.066$	$0.715 \pm 0.062$	$0.746 \pm 0.067$	$0.742 \pm 0.074$ $1,2,3,5$
ecoli-0-4- $6$ - $vs$ - $5$	$0.814 \pm 0.102$	$0.842 \pm 0.099$	$0.842 \pm 0.099$	$0.882 \pm 0.092$	$0.889 \pm 0.093$	$0.888 \pm 0.086$	$0.889 \pm 0.093$
page-blocks-1-3-vs-4	$0.956 \pm 0.064$	$0.976 \pm 0.054$	$0.976 \pm 0.054$ $1,4,5,6,7$	$0.866 \pm 0.102$	$0.923 \pm 0.086$	$0.876 \pm 0.099$	$0.930 \pm 0.079$
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	$0.844 \pm 0.051$	$0.863 \pm 0.046$	$0.864 \pm 0.046$	$0.897 \pm 0.041$	$0.896 \pm 0.039$	$0.895 \pm 0.042$	$0.897 \pm 0.039$
ecoli- $0$ - $1$ - $vs$ - $2$ - $3$ - $5$	$0.786 \pm 0.114$	$0.813 \pm 0.094$	$0.813 \pm 0.094$	$0.834 \pm 0.105$	$0.848 \pm 0.100$	$0.830 \pm 0.108$	$0.834 \pm 0.100$
ecoli-0-6-7-vs-3-5	$0.821 \pm 0.123$	$0.808 \pm 0.124$	$0.812 \pm 0.120$	$0.830 \pm 0.112$	$0.830 \pm 0.105$	$0.839 \pm 0.110$	$0.834 \pm 0.108$
ecoli-0-3-4-7-vs-5-6	$0.843 \pm 0.085$	$0.848 \pm 0.097$	$0.848 \pm 0.097$	$0.876 \pm 0.078$	$0.877 \pm 0.082$	$0.888 \pm 0.079$	$0.879 \pm 0.074$
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	$0.813 \pm 0.129$	$0.799 \pm 0.110$	$0.799 \pm 0.110$	$0.841 \pm 0.113$	$0.836 \pm 0.104$	$0.843 \pm 0.103$	$0.838 \pm 0.097$
shuttle-c0-vs-c4	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$0.998 \pm 0.006$	$0.998 \pm 0.006$	$0.998 \pm 0.006$	$0.998 \pm 0.006$
ecoli-0-3-4-vs-5	$0.828 \pm 0.116$	$0.856 \pm 0.113$	$0.856 \pm 0.113$	$0.885 \pm 0.120$	$0.894 \pm 0.126$	$0.889 \pm 0.116$	$0.894 \pm 0.126$
	<u> </u>	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)	<b>TBAW</b> (6)	OTBAW (7)
Mean rank	3.098	2.585	2.732	4.280	4.829	5.085	5.390
	_	_	_	1,2,3	1,2,3,4	1,2,3,4	1,2,3,4,5

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	$0.680 \pm 0.227$	$0.695 \pm 0.236$	$0.695 \pm 0.236$	$0.588 \pm 0.255$	$0.601 \pm 0.257$	$0.589 \pm 0.226$	$0.602 \pm 0.246$
ecoli - 0 - 2 - 3 - 4 - vs - 5	$0.730 \pm 0.140$	$0.763 \pm 0.153$	$0.763 \pm 0.153$	$0.812 \pm 0.135$	$0.825 \pm 0.139$	$0.818 \pm 0.123$	$0.820 \pm 0.138$
glass-0-1-6-vs-2	$0.225 \pm 0.219$	$0.191 \pm 0.253$	$0.191 \pm 0.253$	$0.313 \pm 0.151$	$0.310 \pm 0.166$	$0.258 \pm 0.120$	$0.301 \pm 0.141$
ecoli-0-1- $vs$ -5	$0.666 \pm 0.143$	$0.774 \pm 0.132$	$0.774 \pm 0.132$	$0.822 \pm 0.121$	$0.840 \pm 0.124$	$0.831 \pm 0.107$	$0.843 \pm 0.118$
yeast-1-4-5-8-vs-7	$0.119 \pm 0.133$	$0.021 \stackrel{1}{\pm} 0.072$	$0.021 \pm 0.072$	$0.139 \pm 0.104$	$0.131 \pm 0.117$	$0.137 \pm 0.067$	$0.128 \pm 0.086$
ecoli4	$0.732 \pm 0.138$	$0.764 \pm 0.152$	$0.764 \pm 0.152$	$0.852 \pm 0.131$	$0.849 \pm 0.147$	$0.822 \pm 0.139$	$0.835 \pm 0.135$
led7digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	$0.778 \pm 0.109$	$0.708 \pm 0.104$	$0.711 \pm 0.111$	$0.390 \pm 0.194$	$0.393 \pm 0.183$	$0.725 \pm 0.168$	$0.707 \pm 0.154$
glass5	$0.657 \stackrel{all}{\pm} 0.346$	$0.623 \overset{4,5}{\pm} 0.326$	$0.623 \pm 0.326$	$0.710 \pm 0.303$	$0.737 \pm 0.291$	$0.643 \pm 0.292$	$0.668 \pm 0.302$
ecoli-0-3-4-6-vs-5	$0.665 \pm 0.186$	$0.710 \pm 0.186$	$0.710 \pm 0.186$	$0.803 \stackrel{6}{\pm} 0.166$	$0.809 \pm 0.167$	$0.801 \pm 0.148$	$0.802 \pm 0.169$
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.391 \pm 0.122$	$0.404 \stackrel{1}{\pm} 0.172$	$0.404 \stackrel{1}{\pm} 0.172$	$0.563 \pm 0.094$	$0.545 \pm 0.110$	$0.495 \pm 0.097$	$0.491 \pm 0.105$
yeast6	$0.422 \pm 0.135$	$0.489 \pm 0.158$	$0.489 \pm 0.158$	$0.517 \pm 0.131$	$0.520 \pm 0.133$	$0.448 \pm 0.112$	$0.467 \pm 0.130$
ecoli-0-6-7-vs-5	$0.726 \pm 0.208$	$0.786 \pm 0.177$	$0.786 \pm 0.177$	$0.792 \pm 0.162$	$0.794 \pm 0.166$	$0.780 \pm 0.160$	$0.770 \stackrel{1}{\pm} 0.165$
$glass\hbox{-}0\hbox{-}1\hbox{-}6\hbox{-}vs\hbox{-}5$	$0.631 \pm 0.314$	$0.637 \stackrel{1}{\pm} 0.270$	$0.637 \pm 0.270$	$0.673 \pm 0.268$	$0.702 \pm 0.301$	$0.640 \pm 0.263$	$0.669 \pm 0.300$
ecoli-0-1-3-7-vs-2-6	$0.513 \pm 0.327$	$0.443 \pm 0.417$	$0.443 \stackrel{-}{\pm} 0.417$	$0.620 \pm 0.356$	$0.609 \pm 0.355$	$0.572 \pm 0.339$	$0.532 \pm 0.334$
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	$0.491 \pm 0.084$	$0.545 \pm 0.091$	$0.545 \pm 0.092$	$0.614 \pm 0.097$	$0.610 \pm 0.101$	$0.604 \pm 0.098$	$0.587 \pm 0.111$
ecoli-0-1-4-7-vs-5-6	$0.612 \pm 0.134$	$0.710 \pm 0.138$	$0.710 \pm 0.138$	$0.792 \pm 0.148$	$0.829 \pm 0.118$	$0.771 \pm 0.138$	$0.802 \pm 0.118$
yeast5	$0.658 \pm 0.137$	$0.677 \pm 0.115$	$0.677 \pm 0.115$	$0.717 \pm 0.101$	$0.743 \pm 0.089$	$0.704 \pm 0.101$	$0.727 \pm 0.098$
shuttle- $c2$ - $vs$ - $c4$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$0.993 \pm 0.046$	$0.993 \pm 0.046$	$0.993 \stackrel{1}{\pm} 0.046$	$0.993 \pm 0.046$
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	$0.611 \pm 0.148$	$0.652 \pm 0.172$	$0.657 \pm 0.176$	$0.765 \pm 0.144$ $1.2.3.6.7$	$0.782 \pm 0.124$	$0.707 \pm 0.157$	$0.717 \pm 0.139$
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	$0.366 \pm 0.116$	$0.280 \pm 0.140$	$0.283 \pm 0.139$	$0.392 \pm 0.122$	$0.373 \pm 0.144$	$0.376 \pm 0.120$	$0.364 \pm 0.111$ $2.3$
yeast-1- $vs$ -7	$\begin{array}{c} 2.3 \\ 0.353 \pm 0.151 \\ 2.3.5.6.7 \end{array}$	$0.177 \pm 0.135$	$0.177 \pm 0.135$	$0.319 \pm 0.147$	$0.277 \pm 0.142 \\ 2.3$	$0.300 \pm 0.105$ $2,3,7$	$0.263 \pm 0.103$ $2.3$
yeast-1-2-8-9- $vs$ -7	$0.233 \pm 0.137$ $6.7$	$0.211 \pm 0.184$	$0.211 \pm 0.184$	$0.255 \pm 0.144$ $6.7$	$0.224 \pm 0.135$ $6.7$	$0.186 \pm 0.090$	$0.194 \pm 0.091$
ecoli- $0$ - $1$ - $4$ - $6$ - $vs$ - $5$	$0.606 \pm 0.149$	$0.691 \pm 0.147$	$0.691 \pm 0.147$	$0.807 \pm 0.114$ $1,2,3$	$0.815 \pm 0.125$ $1,2,3$	$0.794 \pm 0.116$ $1,2,3$	$0.812 \pm 0.124$ $1,2,3$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.249 \pm 0.210$	$0.189 \pm 0.225$	$0.190 \pm 0.227$	$0.330 \pm 0.150$ $1,2,3,6$	$0.339 \pm 0.157$ $1,2,3$	$0.301 \pm 0.123$ $2.3$	$0.336 \pm 0.150$ $1,2,3$
yeast-2- $vs$ -4	$0.707 \pm 0.087$	$0.696 \pm 0.114$	$0.696 \pm 0.114$	$0.763 \pm 0.090$ $1,2,3$	$0.765 \pm 0.096$ $1,2,3$	$0.757 \pm 0.095$ $1,2,3$	$0.756 \pm 0.097$ $1,2,3$
glass-0-6-vs-5	$0.793 \pm 0.302$	$0.741 \pm 0.284$	$0.741 \pm 0.284$	$0.673 \pm 0.361$	$0.719 \pm 0.335$	$0.637 \pm 0.369$	$0.719 \pm 0.335$
glass2	$0.167 \pm 0.204$	$0.203 \pm 0.221$	$0.203 \pm 0.221$	$0.339 \pm 0.191$ $1,2,3,6$	$0.354 \pm 0.198$ $1,2,3$	$0.308 \pm 0.147$ $1,2,3$	$0.352 \pm 0.167$ $1,2,3$
yeast-2-vs-8	$0.408 \pm 0.199$	$0.490 \pm 0.287$	$0.490 \pm 0.287$	$0.667 \pm 0.194$ $1,2,3,7$	$0.661 \pm 0.209$ $1,2,3,7$	$0.659 \pm 0.187$ $1,2,3$	$0.625 \pm 0.203$ $1,2,3$
vowel0	$0.921 \pm 0.045$	$0.902 \pm 0.048$ $4.5.6.7$	$0.902 \pm 0.048$ $4,5,6,7$	$0.860 \pm 0.075$	$0.847 \pm 0.064$	$0.878 \pm 0.065$ $4,5,7$	$0.858 \pm 0.065$
glass-0-4-vs-5	$0.942 \pm 0.109$	$0.927 \pm 0.133$	$0.927 \pm 0.133$	$0.980 \pm 0.139$ $1,2,3$	$0.980 \pm 0.139$ $1,2,3$	$0.980 \pm 0.139$ $1,2,3$	$0.980 \pm 0.139$ $1,2,3$
glass- $0$ - $1$ - $4$ - $6$ - $vs$ - $2$	$0.220 \pm 0.210$	$0.198 \pm 0.249$	$0.204 \pm 0.256$	$0.318 \pm 0.185$ $1,2,3,6$	$0.314 \pm 0.184$ $1,2,3$	$0.281 \pm 0.148$ $1,2,3$	$0.303 \pm 0.181$ $1,2,3$
yeast4	$0.336 \pm 0.122$ $2.3$	$0.267 \pm 0.161$	$0.260 \pm 0.156$	$0.418 \pm 0.103 \\ 1,2,3,6,7$	$0.400 \pm 0.106$ 1,2,3,6,7	$0.357 \pm 0.085$	$0.352 \pm 0.094$
ecoli-0-4-6- $vs$ -5	$0.667 \pm 0.159$	$0.738 \pm 0.158$	$0.738 \pm 0.158$	$0.802 \pm 0.139$ $1,2,3$	$0.811 \pm 0.148$ $1,2,3$	$0.809 \pm 0.127$ $1,2,3$	$0.811 \pm 0.148 \\ 1,2,3$
page-blocks-1-3-vs-4	$0.903 \pm 0.084$ $4.6$	$0.945 \pm 0.078$ $1,4,5,6,7$	$0.945 \pm 0.078$ $1,4,5,6,7$	$0.801 \pm 0.146$	$0.898 \pm 0.126$ $4.6$	$0.795 \pm 0.163$	$0.902 \pm 0.114$ $4.6$
yeast-0-2-5-7-9-vs-3-6-8	$0.711 \pm 0.076$	$0.777 \pm 0.067$	$0.777 \pm 0.068$	$0.820 \pm 0.060$ $1,2,3,6,7$	$0.819 \pm 0.061$ $1,2,3,7$	$0.810 \pm 0.065$ $1,2,3$	$0.808 \pm 0.060$ $1,2,3$
ecoli-0-1-vs-2-3-5	$0.599 \pm 0.183$	$0.697 \pm 0.155$	$0.697 \pm 0.155$	$0.764 \pm 0.168$ $1,2,3,6$	$0.786 \pm 0.157$ $1,2,3,6,7$	$0.715 \pm 0.174$ <sub>1</sub>	$0.728 \pm 0.166$
ecoli-0-6-7-vs-3-5	$0.676 \pm 0.209$ $-$	$0.686 \pm 0.226$	$0.695 \pm 0.211$	$0.721 \pm 0.192$	$0.718 \pm 0.173$	$0.724 \pm 0.195$	$0.704 \pm 0.189$ $-$
ecoli-0-3-4-7-vs-5-6	$0.686 \pm 0.108$ $-$	$0.759 \pm 0.154$ <sub>1</sub>	$0.759 \pm 0.154$ <sub>1</sub>	$0.798 \pm 0.113$ $1,2,3$	$0.793 \pm 0.131$	$0.801 \pm 0.120$ $1,2,3,7$	$0.772 \pm 0.115$ <sub>1</sub>
ecoli-0-2-6-7-vs-3-5	$0.664 \pm 0.218$ $-$	$0.674 \pm 0.193$	$0.674 \pm 0.193$	$0.754 \pm 0.192$ $1,2,3,7$	$0.738 \pm 0.174$ $1,2,3,7$	$0.739 \pm 0.171$ $1,2,3,7$ $1,2,3,7$	$0.708 \pm 0.166$ $-$
shuttle-c0-vs-c4	$1.000 \pm 0.000$ $-$	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	$0.683 \pm 0.176$	$0.758 \pm 0.183$	$0.758 \pm 0.183$ <sub>1</sub>	$0.803 \pm 0.183$ $1,2,3$	$0.807 \pm 0.208$ $1,2,3$	$0.804 \pm 0.177$ $1,2,3$	$0.803 \pm 0.207$ $1,2,3$
				,2,0	,2,0	-,2,0	-,2,0

Table 3: Results for F1 metric

	CART (1)   OSB (2)   OKNORAU (3)   TBAC (4)   OTBAC (5)   TBAW (6)   OTBAW (7)									
Mean rank	2.683	2.841	2.988	5.329	5.561	4.256	4.341			
	_	_	-	1,2,3,6,7	1,2,3,6,7	1,2,3	1,2,3			

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	$0.730 \pm 0.276$	$0.718 \pm 0.270$	$0.718 \pm 0.270$	$0.577 \pm 0.288$	$0.577 \pm 0.268$	$0.577 \pm 0.276$	$0.570 \pm 0.259$
ecoli- $0$ - $2$ - $3$ - $4$ - $vs$ - $5$	$0.769 \pm 0.174$	$0.859 \pm 0.172$	$0.859 \pm 0.172$	$0.873 \stackrel{-}{\pm} 0.140$	$0.874 \pm 0.151$	$0.874 \pm 0.136$	$0.865 \pm 0.150$
$glass\hbox{-}0\hbox{-}1\hbox{-}6\hbox{-}vs\hbox{-}2$	$0.237 \pm 0.249$	$0.297 \stackrel{1}{\pm} 0.410$	$0.297 \stackrel{1}{\pm} 0.410$	$0.244 \stackrel{1}{\pm} 0.120$	$0.236 \stackrel{1}{\pm} 0.137$	$0.178 \stackrel{1}{\pm} 0.087$	$0.217 \stackrel{1}{\pm} 0.110$
ecoli-0-1- $vs$ -5	$0.731 \pm 0.181$	$0.863 \pm 0.148$	$0.863 \pm 0.148$	$0.938 \stackrel{6}{\pm} 0.116$	$0.939 \pm 0.113$	$0.921 \pm 0.120$	$0.935 \stackrel{6}{\pm} 0.115$
yeast-1-4-5-8-vs-7	$0.112 \pm 0.127$	$0.060 \stackrel{1}{\pm} 0.215$	$0.060 \pm 0.215$	$0.112 \pm 0.085$	$0.108 \pm 0.097$	$0.088 \pm 0.043$	$0.086 \pm 0.058$
ecoli4	$0.743 \pm 0.176$	$0.799 \pm 0.181$	$0.799 \pm 0.181$	$0.931 \pm 0.106$	$0.909 \pm 0.134$	$0.864 \pm 0.147$	$0.880 \pm 0.138$
$led 7 digit \hbox{-} 0\hbox{-} 2\hbox{-} 4\hbox{-} 5\hbox{-} 6\hbox{-} 7\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 1$	$0.797 \pm 0.142$	$0.642 \pm 0.115$	$0.648 \pm 0.124$	$0.692 \pm 0.291$	$0.642 \pm 0.276$	$0.721 \pm 0.165$	$0.717 \pm 0.120$
glass5	$0.707 \pm 0.382$	$0.700 \stackrel{-}{\pm} 0.378$	$0.700 \pm 0.378$	$0.730 \pm 0.336$	$0.753 \pm 0.318$	$0.623 \overset{2,3}{\pm} 0.328$	$0.633 \pm 0.323$
ecoli-0-3-4-6-vs-5	$0.692 \pm 0.204$	$0.821 \pm 0.200$	$0.821 \pm 0.200$	$0.842 \pm 0.154$	$0.845 \pm 0.163$	$0.820 \pm 0.158$	$0.840 \pm 0.167$
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.395 \pm 0.139$	$0.527 \stackrel{1}{\pm} 0.207$	$0.527 \pm 0.207$	$0.534 \pm 0.125$	$0.515 \pm 0.131$	$0.407 \stackrel{1}{\pm} 0.107$	$0.402 \stackrel{1}{\pm} 0.112$
yeast6	$0.419 \pm 0.182$	$0.633 \pm 0.232$	$0.633 \pm 0.232$	$0.462 \pm 0.131$	$0.490 \pm 0.145$	$0.357 \stackrel{-}{\pm} 0.112$	$0.398 \pm 0.135$
ecoli-0- $6$ - $7$ - $vs$ - $5$	$0.794 \pm 0.232$	$0.857 \pm 0.176$	$0.857 \pm 0.176$	$0.874 \pm 0.165$	$0.872 \pm 0.163$	$0.826 \pm 0.181$	$0.822 \stackrel{6}{\pm} 0.177$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.680 \pm 0.364$	$0.720 \pm 0.342$	$0.720 \pm 0.342$	$0.723 \pm 0.320$	$0.763 \pm 0.335$	$0.659 \pm 0.326$	$0.683 \pm 0.340$
ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	$0.465 \pm 0.340$	$0.480 \stackrel{-}{\pm} 0.457$	$0.480 \stackrel{-}{\pm} 0.457$	$0.615 \pm 0.387$	$0.604 \pm 0.393$	$0.551 \pm 0.374$	$0.499 \pm 0.373$
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 6 \hbox{-} vs \hbox{-} 3 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9$	$0.479 \pm 0.096$	$0.669 \pm 0.127$	$0.669 \pm 0.127$	$0.739 \pm 0.113$	$0.738 \pm 0.108$	$0.696 \stackrel{7}{\pm} 0.150$	$0.655 \pm 0.166$
ecoli-0-1-4-7-vs-5-6	$0.611 \pm 0.150$	$0.822 \pm 0.158$	$0.822 \pm 0.158$	$0.908 \pm 0.125$	$0.888 \pm 0.132$	$0.825 \pm 0.140$	$0.828 \pm 0.154$
yeast5	$0.703 \pm 0.162$	$0.754 \pm 0.136$	$0.754 \pm 0.136$	$0.657 \pm 0.119$	$0.681 \pm 0.115$	$0.622 \pm 0.125$	$0.654 \pm 0.115$
shuttle-c2-vs-c4	$1.000 \pm 0.000$	$1.4,5,6,7$ $1.000 \pm 0.000$	$1.45, 6, 7 \\ 1.000 \pm 0.000$	$1.000 \stackrel{6}{\pm} 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$
$ecoli\mbox{-}0\mbox{-}1\mbox{-}4\mbox{-}7\mbox{-}vs\mbox{-}2\mbox{-}3\mbox{-}5\mbox{-}6$	$0.611 \pm 0.157$	$0.767 \pm 0.164$	$0.768 \pm 0.164$	$0.898 \pm 0.118$	$0.904 \pm 0.134$	$0.753 \pm 0.186$	$0.746 \pm 0.173$
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	$0.363 \pm 0.130$	$0.452 \pm 0.240$	$0.455 \pm 0.239$	$0.541 \pm 0.179$	$0.455 \pm 0.181$	$0.451 \pm 0.199$	$0.332 \pm 0.129$
yeast-1- $vs$ -7	$0.333 \pm 0.141$	$0.354 \pm 0.329$	$0.354 \pm 0.329$	$0.284 \pm 0.154$	$0.248 \pm 0.163$	$0.217 \pm 0.083$	$0.189 \pm 0.080$
$yeast\hbox{-} 1\hbox{-} 2\hbox{-} 8\hbox{-} 9\hbox{-} vs\hbox{-} 7$	$0.212 \pm 0.140$	$0.433 \pm 0.397$	$5,6,7$ $0.433 \pm 0.397$	$0.233 \pm 0.147$	$0.205 \pm 0.134$	$0.124 \pm 0.061$	$0.131 \pm 0.063$
ecoli- $0$ - $1$ - $4$ - $6$ - $vs$ - $5$	$0.655 \pm 0.218$	$0.799 \pm 0.195$	$0.799 \pm 0.195$	$0.873 \pm 0.146$	$0.881 \pm 0.132$	$0.836 \pm 0.154$	$0.876 \pm 0.139$
$glass\hbox{-}0\hbox{-}1\hbox{-}5\hbox{-}vs\hbox{-}2$	$0.302 \pm 0.304$	$0.280 \pm 0.361$	$0.282 \pm 0.362$	$0.265 \pm 0.142$	$0.257 \pm 0.131$	$0.213 \stackrel{1}{\pm} 0.090$	$0.243 \pm 0.123$
yeast-2- $vs$ -4	$0.709 \pm 0.097$	$0.769 \pm 0.115$	$0.769 \pm 0.115$	$0.852 \pm 0.103$	$0.854 \pm 0.101$	$0.812 \pm 0.120$	$0.802 \pm 0.110$
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.808 \pm 0.318$	$0.807 \pm 0.307$	$0.807 \pm 0.307$	$0.733 \pm 0.390$	$0.803 \pm 0.358$	$0.690 \pm 0.407$	$0.793 \pm 0.359$
glass2	$0.172 \pm 0.228$	$0.293 \pm 0.352$	$0.293 \pm 0.352$	$0.302 \pm 0.200$	$0.275 \pm 0.163$	$0.227 \pm 0.118$	$0.256 \pm 0.124$
yeast-2- $vs$ -8	$0.442 \pm 0.271$	$0.718 \pm 0.378$	$0.718 \pm 0.378$	$0.915 \pm 0.173 \\ 1,2,3,7$	$0.908 \pm 0.200$ $1,2,3,7$	$0.863 \pm 0.214$ $1,2,3$	$0.800 \pm 0.259$
vowel0	$0.911 \pm 0.067$	$0.907 \pm 0.074$	$0.908 \pm 0.073$	$0.933 \pm 0.073$ $1,2,3$	$0.936 \pm 0.064$ $1,2,3$	$0.928 \pm 0.077$	$0.925 \pm 0.074$ $2,3$
$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	$0.908 \pm 0.169$	$0.888 \pm 0.197$	$0.888 \pm 0.197$	$0.980 \pm 0.139$ $1,2,3$	$0.980 \pm 0.139$ $1,2,3$	$0.980 \pm 0.139$ $1,2,3$	$0.980 \pm 0.139$ $1,2,3$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.258 \pm 0.269$	$0.260 \pm 0.353$	$0.267 \pm 0.359$	$0.268 \pm 0.186$ $6,7$	$0.240 \pm 0.147$	$0.203 \pm 0.113$	$0.220 \pm 0.137$
yeast4	$0.330 \pm 0.134$	$0.425 \pm 0.260$	$0.420 \pm 0.259$	$0.384 \pm 0.115$	$0.365 \pm 0.116$	$0.274 \pm 0.080$	$0.266 \pm 0.080$
ecoli-0-4-6-vs-5	$0.744 \pm 0.193$	$0.823 \pm 0.177$	$0.823 \pm 0.177$	$0.863 \pm 0.150$	$0.856 \pm 0.164$	$0.856 \pm 0.155$	$0.856 \pm 0.164$
page-blocks-1-3-vs-4	$0.908 \pm 0.102$	$0.943 \pm 0.082$	$0.943 \pm 0.082$	$0.925 \pm 0.113$	$0.974 \pm 0.090$	$0.868 \pm 0.166$	$0.961 \pm 0.093$
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	$0.709 \pm 0.082$	$0.822 \pm 0.088$	$0.822 \pm 0.088$	$0.834 \pm 0.073$	$0.832 \pm 0.075$	$0.818 \pm 0.084$	$0.806 \pm 0.073$
ecoli- $0$ - $1$ - $vs$ - $2$ - $3$ - $5$	$0.627 \pm 0.198$	$0.788 \pm 0.156$	$0.788 \pm 0.156$	$0.942 \pm 0.117$ $1,2,3,6,7$	$0.929 \pm 0.143$ $1,2,3,6,7$	$0.801 \pm 0.169$	$0.804 \pm 0.180$
ecoli-0-6-7- $vs$ -3-5	$0.735 \pm 0.236$	$0.810 \pm 0.253$	$0.820 \pm 0.230$	$0.817 \pm 0.203$	$0.809 \pm 0.194$	$0.784 \pm 0.218$	$0.741 \pm 0.215$
ecoli-0-3-4-7- $vs$ -5-6	$0.692 \pm 0.154$	$0.853 \pm 0.174$	$0.853 \pm 0.174$	$0.856 \pm 0.133$	$0.834 \pm 0.144$	$0.832 \pm 0.151$	$0.783 \pm 0.149$
ecoli-0-2-6-7- $vs$ -3-5	$0.722 \pm 0.252$	$0.815 \pm 0.225$	$0.815 \pm 0.225$	$0.865 \pm 0.185$	$0.828 \pm 0.191$	$0.815 \pm 0.192$	$0.746 \pm 0.209$
shuttle-c0-vs-c4	$1.000 \pm 0.000$	$1.000 \stackrel{1,7}{\pm} 0.000$	$1.000 \overset{1,7}{\pm} 0.000$	$1.000 \pm 0.000$	$1.000 \stackrel{1,7}{\pm} 0.000$	$1.000 \stackrel{1,7}{\pm} 0.000$	$1.000 \pm 0.000$
ecoli-0-3-4-vs-5	$0.738 \pm 0.200$	$0.838 \pm 0.188$	$0.838 \pm 0.188$	$0.875 \pm 0.149$	$0.856 \pm 0.192$	$0.862 \pm 0.162$	$0.847 \pm 0.192$
	<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	2.634	3.976	4.195	5.695	5.134	3.195	3.171			
	_	1 1	1,6,7	all	1,2,3,6,7	_	_			

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	$0.717 \pm 0.277$	$0.727 \pm 0.280$	$0.727 \pm 0.280$	$0.683 \pm 0.327$	$0.673 \pm 0.309$	$0.697 \pm 0.295$	$0.687 \pm 0.301$
ecoli-0-2-3-4- $vs$ -5	$0.730 \pm 0.179$	$0.720 \pm 0.191$	$0.720 \pm 0.191$	$0.780 \stackrel{-}{\pm} 0.177$	$0.805 \stackrel{-}{\pm} 0.182$	$0.790 \pm 0.168$	$0.805 \pm 0.182$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.243 \pm 0.247$	$0.152 \pm 0.208$	$0.152 \pm 0.208$	$0.473 \stackrel{-}{\pm} 0.252$	$0.490 \pm 0.260$	$0.505 \pm 0.255$	$0.528 \pm 0.243$
ecoli-0-1-vs-5	$0.655 \pm 0.205$	$0.740 \pm 0.193$	$0.740 \pm 0.193$	$0.755 \pm 0.176$	$0.785 \pm 0.180$	$0.790 \pm 0.175$	$0.795 \pm 0.178$
yeast-1-4-5-8-vs-7	$0.140 \pm 0.157$	$0.013 \stackrel{1}{\pm} 0.045$	$0.013 \pm 0.045$	$0.197 \stackrel{1}{\pm} 0.151$	$0.170 \stackrel{1}{\pm} 0.154$	$0.320 \stackrel{1}{\pm} 0.172$	$0.257 \pm 0.173$
ecoli4	$0.755 \pm 0.183$	$0.765 \pm 0.196$	$0.765 \pm 0.196$	$0.815 \pm 0.192$	$0.830 \pm 0.202$	$0.820 \pm 0.193$	$0.835 \pm 0.197$
$led 7 digit \hbox{-} 0 \hbox{-} 2 \hbox{-} 4 \hbox{-} 5 \hbox{-} 6 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9 \hbox{-} vs \hbox{-} 1$	$0.782 \pm 0.143$	$0.811 \pm 0.151$	$0.811 \pm 0.151$	$0.292 \stackrel{-}{\pm} 0.172$	$0.300 \pm 0.160$	$0.769 \stackrel{1}{\pm} 0.223$	$0.754 \pm 0.226$
glass5	$0.670 \overset{4.5}{\pm} 0.382$	$0.620 \pm 0.368$	$0.620 \pm 0.368$	$0.760 \pm 0.349$	$0.780 \pm 0.334$	$0.750 \overset{4.5}{\pm} 0.350$	$0.770 \pm 0.349$
ecoli-0-3-4-6-vs-5	$0.680 \pm 0.218$	$0.675 \pm 0.230$	$0.675 \pm 0.230$	$0.800 \pm 0.217$	$0.805 \pm 0.207$	$0.810 \pm 0.197$	$0.800 \pm 0.212$
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.412 \pm 0.159$	$0.349 \pm 0.178$	$0.349 \pm 0.178$	$0.621 \pm 0.129$	$0.602 \pm 0.130$	$0.671 \pm 0.144$	$0.663 \pm 0.136$
yeast6	$0.477 \stackrel{-}{\pm} 0.182$	$0.437 \pm 0.183$	$0.437 \pm 0.183$	$0.61\overset{1,2,3}{1} \pm 0.181$	$0.591 \pm 0.195$	$0.646 \pm 0.167$	$0.609 \pm 0.199$
ecoli-0-6-7-vs-5	$0.705 \pm 0.243$	$0.760 \pm 0.217$	$0.760 \pm 0.217$	$0.755 \pm 0.203$	$0.760 \pm 0.211$	$0.775 \stackrel{all}{\pm} 0.201$	$0.760 \pm 0.211$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.660 \pm 0.366$	$0.650 \pm 0.320$	$0.650 \pm 0.320$	$0.700 \stackrel{-}{\pm} 0.316$	$0.700 \pm 0.331$	$0.720 \pm 0.318$	$0.720 \pm 0.334$
ecoli-0-1-3-7-vs-2-6	$0.660 \pm 0.417$	$0.450 \pm 0.438$	$0.450 \pm 0.438$	$0.700 \stackrel{-}{\pm} 0.400$	$0.700 \pm 0.400$	$0.700 \pm 0.400$	$0.700 \pm 0.400$
$yeast \hbox{-} 0 \hbox{-} 2 \hbox{-} 5 \hbox{-} 6 \hbox{-} vs \hbox{-} 3 \hbox{-} 7 \hbox{-} 8 \hbox{-} 9$	$0.512 \pm 0.097$	$0.469 \pm 0.094$	$0.468 \pm 0.094$	$0.534 \pm 0.110$	$0.529 \pm 0.118$	$0.553 \pm 0.109$	$0.553 \pm 0.115$
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	$0.656 \pm 0.200$	$0.656 \pm 0.183$	$0.656 \pm 0.183$	$0.744 \pm 0.215$	$0.800 \pm 0.164$	$0.760 \pm 0.200$	$0.808 \pm 0.169$
yeast5	$0.648 \pm 0.170$	$0.638 \pm 0.165$	$0.638 \pm 0.165$	$0.805 \pm 0.127$	$0.832 \pm 0.112$	$0.831 \pm 0.126$	$0.834 \pm 0.117$
shuttle-c2-vs-c4	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$0.990 \pm 0.069$	$0.990 \pm 0.069$	$0.990 \pm 0.069$	$0.990 \pm 0.069$
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	$0.632 \pm 0.180$	$0.610 \pm 0.207$	$0.617 \pm 0.211$	$0.695 \pm 0.190$	$0.713 \pm 0.162$	$0.699 \pm 0.186$	$0.717 \pm 0.162$
$yeast\hbox{-}0\hbox{-}3\hbox{-}5\hbox{-}9\hbox{-}vs\hbox{-}7\hbox{-}8$	$0.394 \pm 0.146$	$0.216 \pm 0.118$	$0.218 \pm 0.117$	$0.324 \pm 0.125$	$0.340 \pm 0.156$	$0.376 \pm 0.156$	$0.472 \pm 0.182$
yeast-1- $vs$ -7	$0.393 \pm 0.190$	$0.130 \pm 0.106$	$0.130 \pm 0.106$	$0.400 \pm 0.188$	$0.353 \pm 0.190$	$0.520 \pm 0.198$	$0.460 \pm 0.193$
yeast-1-2-8-9- $vs$ -7	$0.280 \pm 0.168$	$0.150 \pm 0.138$	$0.150 \pm 0.138$	$0.300 \pm 0.169$	$0.267 \pm 0.173$	$0.383 \pm 0.200$	$0.393 \pm 0.196$
ecoli-0-1-4-6- $vs$ -5	$0.615 \pm 0.188$	$0.655 \pm 0.186$	$0.655 \pm 0.186$	$0.775 \pm 0.152$	$0.780 \pm 0.170$	$0.780 \pm 0.146$	$0.780 \pm 0.170$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.262 \pm 0.252$	$0.160 \pm 0.202$	$0.160 \pm 0.202$	$0.480 \pm 0.229$	$0.538 \pm 0.259$	$0.547 \pm 0.249$	$0.588 \pm 0.256$
yeast-2-vs-4	$0.722 \pm 0.132$	$0.654 \pm 0.147$	$0.654 \pm 0.147$	$0.705 \pm 0.125$	$0.707 \pm 0.134$	$0.727 \pm 0.135$	$0.735 \pm 0.148$
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.820 \pm 0.328$	$0.730 \pm 0.319$	$0.730 \pm 0.319$	$0.660 \pm 0.379$	$0.690 \pm 0.359$	$0.640 \pm 0.387$	$0.700 \pm 0.360$
glass2	$0.187 \pm 0.238$	$0.170 \pm 0.189$	$0.170 \pm 0.189$	$0.437 \pm 0.247$	$0.525 \pm 0.277$	$0.532 \pm 0.255$	$0.592 \pm 0.280$
yeast-2-vs-8	$0.435 \pm 0.233$	$0.405 \pm 0.277$	$0.405 \pm 0.277$	$0.555 \pm 0.219$	$0.550 \pm 0.229$	$0.570 \pm 0.212$	$0.555 \pm 0.230$
vowel0	$0.936 \pm 0.055$	$0.902 \pm 0.068$	$0.902 \pm 0.068$	$0.807 \pm 0.109$	$0.782 \pm 0.104$	$0.843 \pm 0.099$	$0.809 \pm 0.099$
$glass\hbox{-}0\hbox{-}4\hbox{-}vs\hbox{-}5$	$1.000 \stackrel{all}{\pm} 0.000$	$1.000 \pm 0.000$	$4,5,6,7$ $1.000 \pm 0.000$	$0.980 \pm 0.139$	$0.980 \pm 0.139$	$0.980 \pm 0.139$	$0.980 \stackrel{5}{\pm} 0.139$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.213 \pm 0.216$	$0.182 \pm 0.233$	$0.187 \pm 0.237$	$0.442 \pm 0.265$	$0.482 \pm 0.273$	$0.513 \pm 0.299$	$0.522 \pm 0.307$
yeast4	$0.364 \pm 0.141$	$0.208 \pm 0.136$	$0.202 \pm 0.131$	$0.484 \pm 0.134$	$0.460 \pm 0.123$	$0.546 \pm 0.141$	$0.540 \pm 0.150$
ecoli-0-4-6- $vs$ -5	$0.660 \pm 0.210$	$0.705 \pm 0.198$	$0.705 \pm 0.198$	$0.780 \pm 0.184$	$0.795 \pm 0.184$	$0.795 \pm 0.170$	$ \begin{array}{c} 1,2,3,4,5\\0.795 \pm 0.184 \end{array} $
page-blocks-1-3-vs-4	$0.918 \pm 0.131$	$0.955 \pm 0.108$	$0.955 \pm 0.108$	$0.736 \pm 0.205$	$0.847 \pm 0.170$	$0.761 \pm 0.197$	$0.862 \pm 0.157$
yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8	$0.721 \pm 0.102$	$0.746 \pm 0.095$	$0.747 \pm 0.095$	$0.813 \pm 0.082$	$0.811 \pm 0.076$	$0.810 \pm 0.084$	$0.816 \pm 0.078$
ecoli- $0$ - $1$ - $vs$ - $2$ - $3$ - $5$	$0.615 \pm 0.230$	$0.647 \pm 0.186$	$0.647 \pm 0.186$	$0.673 \pm 0.210$	$0.702 \pm 0.196$	$0.681 \pm 0.215$	$0.688 \pm 0.198$
ecoli-0-6-7- $vs$ -3-5	$0.671 \pm 0.250$	$0.630 \pm 0.251$	$0.639 \pm 0.242$	$0.676 \pm 0.225$	$0.681 \pm 0.206$	$0.699 \pm 0.217$	$0.698 \pm 0.207$
ecoli - 0 - 3 - 4 - 7 - vs - 5 - 6	$0.728 \pm 0.182$	$0.712 \pm 0.192$	$0.712 \pm 0.192$	$0.768 \pm 0.156$	$0.772 \pm 0.160$	$0.796 \pm 0.157$	$0.784 \pm 0.148$
ecoli - 0 - 2 - 6 - 7 - vs - 3 - 5	$0.659 \pm 0.255$	$0.616 \pm 0.224$	$0.616 \pm 0.224$	$0.693 \pm 0.221$	$0.689 \pm 0.203$	$0.707 \pm 0.201$	$0.707 \pm 0.189$
shuttle-c0-vs-c4	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$0.996 \pm 0.012$	$0.996 \pm 0.012$	$0.996 \pm 0.012$	$0.996 \pm 0.012$
ecoli-0-3-4-vs-5	$0.690 \pm 0.237$	$0.730 \pm 0.222$	$0.730 \pm 0.222$	$0.785 \pm 0.239$ $1,2,3$	$0.805 \pm 0.251 \\ 1,2,3$	$0.795 \pm 0.232$ $1,2,3$	$0.805 \pm 0.251 \\ 1,2,3$

Table 7: Results for Recall metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
$Mean\ rank$	3.293	2.622	2.695	3.890	4.463	5.366	5.671
	2,3	_	-	2,3	1,2,3,4	1,2,3,4,5	1,2,3,4,5

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	$0.846 \pm 0.136$	$0.853 \pm 0.140$	$0.853 \pm 0.140$	$0.822 \pm 0.165$	$0.820 \pm 0.156$	$0.827 \pm 0.149$	$0.826 \pm 0.152$
ecoli- $0$ - $2$ - $3$ - $4$ - $vs$ - $5$	$0.850 \pm 0.087$	$0.852 \pm 0.095$	$0.852 \pm 0.095$	$0.883 \pm 0.089$	$0.895 \pm 0.091$	$0.888 \stackrel{-}{\pm} 0.084$	$0.895 \pm 0.091$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.582 \pm 0.128$	$0.561 \pm 0.109$	$0.561 \pm 0.109$	$0.665 \pm 0.124$	$0.667 \pm 0.129$	$0.639 \pm 0.121$	$0.668 \pm 0.119$
ecoli-0-1-vs-5	$0.814 \pm 0.099$	$0.863 \pm 0.095$	$0.863 \pm 0.095$	$0.875 \pm 0.087$	$0.890 \pm 0.089$	$0.891 \pm 0.085$	$0.894 \pm 0.088$
yeast-1-4-5-8- $vs$ -7	$0.546 \pm 0.078$	$0.503 \stackrel{1}{\pm} 0.023$	$0.503 \pm 0.023$	$0.561 \pm 0.077$	$0.553 \pm 0.079$	$0.585 \pm 0.083$	$0.565 \pm 0.090$
ecoli4	$0.868 \pm 0.091$	$0.875 \pm 0.098$	$0.875 \pm 0.098$	$0.905 \pm 0.095$	$0.912 \pm 0.101$	$0.905 \pm 0.096$	$0.913 \pm 0.097$
led7 digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	$0.881 \pm 0.072$	$0.883 \pm 0.074$	$0.884 \pm 0.075$	$0.641 \pm 0.085$	$0.643 \pm 0.080$	$0.870 \pm 0.109$	$0.862 \pm 0.109$
glass5	$0.831 \pm 0.189$	$0.805 \pm 0.183$	$0.805 \pm 0.183$	$0.875 \pm 0.172$	$0.886 \pm 0.165$	$0.865 \pm 0.171$	$0.876 \pm 0.172$
ecoli-0-3-4-6-vs-5	$0.821 \pm 0.111$	$0.827 \pm 0.115$	$0.827 \pm 0.115$	$0.891 \pm 0.109$	$0.894 \pm 0.105$	$0.894 \pm 0.100$	$0.891 \pm 0.107$
yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.670 \pm 0.077$	$0.658 \pm 0.087$	$0.658 \pm 0.087$	$0.779 \pm 0.062$	$0.768 \pm 0.065$	$0.778 \pm 0.070$	$0.773 \pm 0.070$
yeast6	$0.729 \pm 0.089$	$0.715 \pm 0.090$	$0.715 \pm 0.090$	$0.799 \pm 0.090$	$0.788 \pm 0.096$	$0.807 \pm 0.081$	$0.792 \pm 0.098$
ecoli-0- $6$ - $7$ - $vs$ - $5$	$0.842 \pm 0.121$	$0.873 \pm 0.110$	$0.873 \pm 0.110$	$0.871 \pm 0.102$	$0.873 \pm 0.107$	$0.877 \pm 0.101$	$0.870 \pm 0.106$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.822 \pm 0.182$	$0.817 \pm 0.157$	$0.817 \pm 0.157$	$0.842 \pm 0.157$	$0.845 \pm 0.167$	$0.847 \pm 0.157$	$0.850 \pm 0.167$
ecoli-0-1-3-7-vs-2-6	$0.820 \pm 0.209$	$0.722 \pm 0.219$	$0.722 \pm 0.219$	$0.844 \pm 0.200$	$0.842 \pm 0.201$	$0.841 \pm 0.199$	$0.837 \pm 0.198$
yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9	$0.725 \pm 0.050$	$0.721 \pm 0.047$	$0.721 \pm 0.047$	$0.756 \pm 0.055$	$0.754 \pm 0.059$	$0.761 \pm 0.053$	$0.758 \pm 0.059$
ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6	$0.809 \pm 0.095$	$0.821 \pm 0.090$	$0.821 \pm 0.090$	$0.868 \pm 0.106$	$0.895 \pm 0.082$	$0.872 \pm 0.098$	$0.896 \pm 0.084$
yeast5	$0.819 \pm 0.085$	$0.816 \pm 0.082$	$0.816 \pm 0.082$	$0.896 \pm 0.063$	$0.910 \pm 0.056$	$0.907 \pm 0.063$	$0.910 \pm 0.058$
shuttle- $c2$ - $vs$ - $c4$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$0.995 \pm 0.034$	$0.995 \pm 0.034$	$0.995 \pm 0.034$	$0.995 \pm 0.034$
ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	$0.796 \pm 0.092$	$0.795 \pm 0.102$	$0.798 \pm 0.104$	$0.843 \pm 0.094$	$0.852 \pm 0.080$	$0.837 \pm 0.093$	$0.845 \pm 0.081$
yeast - 0 - 3 - 5 - 9 - vs - 7 - 8	$0.656 \pm 0.070$ $2,3$	$0.592 \pm 0.060$	$0.593 \pm 0.059$	$0.646 \pm 0.061$ 2.3	$0.647 \pm 0.074$	$0.655 \pm 0.068$ $2,3$	$0.675 \pm 0.079 \\ 2,3,4,5$
yeast-1-vs-7	$0.669 \pm 0.095$ $2.3.5$	$0.556 \pm 0.053$	$0.556 \pm 0.053$	$0.661 \pm 0.094$ $2,3,5$	$0.635 \pm 0.093$ $2.3$	$0.692 \pm 0.095$ 2,3,4,5,7	$0.659 \pm 0.094$ $2.3.5$
yeast-1-2-8-9- $vs$ -7	$0.622 \pm 0.082$ $2,3$	$0.572 \pm 0.069$	$0.572 \pm 0.069$	$0.632 \pm 0.086$ $2.3$	$0.616 \pm 0.086$ $2.3$	$0.648 \pm 0.098$ $1,2,3,5$	$0.653 \pm 0.098$ $1,2,3,5$
ecoli- $0$ - $1$ - $4$ - $6$ - $vs$ - $5$	$0.792 \pm 0.090$	$0.819 \pm 0.092$	$0.819 \pm 0.092$	$0.882 \pm 0.075$ $1,2,3$	$0.885 \pm 0.085$ $1,2,3$	$0.883 \pm 0.073$ $1,2,3$	$0.885 \pm 0.085$ $1,2,3$
$glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$	$0.592 \pm 0.127$	$0.562 \pm 0.102$	$0.562 \pm 0.102$	$0.665 \pm 0.115$ $1,2,3$	$0.684 \pm 0.129$ $1,2,3$	$0.664 \pm 0.122$ $1,2,3$	$0.690 \pm 0.133$ $1,2,3$
yeast-2-vs-4	$0.844 \pm 0.064$ $2.3$	$0.816 \pm 0.073$	$0.816 \pm 0.073$	$0.845 \pm 0.062$	$0.847 \pm 0.067$	$0.853 \pm 0.066$	$0.857 \pm 0.072$
$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.899 \pm 0.171$ $4.6$	$0.855 \pm 0.165$	$0.855 \pm 0.165$	$0.823 \pm 0.193$	$0.841 \pm 0.181$	$0.809 \pm 0.197$	$0.845 \pm 0.181$
glass2	$0.561 \pm 0.118$	$0.573 \pm 0.092$	$0.573 \pm 0.092$	$0.668 \pm 0.128$ $1,2,3$	$0.700 \pm 0.144$ $1,2,3$	$0.680 \pm 0.131$ $1,2,3$	$0.720 \pm 0.145$ $1,2,3,4$
yeast-2-vs-8	$0.704 \pm 0.113$	$0.701 \pm 0.138$	$0.701 \pm 0.138$	$0.776 \pm 0.110$ $1,2,3,7$	$0.774 \pm 0.115$ $1,2,3,7$	$0.782 \pm 0.106$ $1,2,3$	$0.773 \pm 0.114$ $1,2,3$
vowel0	$0.963 \pm 0.028$ all	$0.946 \pm 0.033$ $4,5,6,7$	$0.946 \pm 0.033$ $4,5,6,7$	$0.900 \pm 0.054$	$0.888 \pm 0.051$	$0.918 \pm 0.049$ $4,5,7$	$0.901 \pm 0.049$
glass-0-4-vs-5	$0.992 \pm 0.016$ $4,5,6,7$	$0.989 \pm 0.021$	$0.989 \pm 0.021$	$0.990 \pm 0.069$ $2,3$	$0.990 \pm 0.069$ $2.3$	$0.989 \pm 0.074$ $2.3$	$0.989 \pm 0.074$ $2.3$
glass-0-1-4-6-vs-2	$0.573 \pm 0.117$	$0.570 \pm 0.119$	$0.572 \pm 0.121$	$0.662 \pm 0.131$ $1,2,3$	$0.671 \pm 0.139$ $1,2,3$	$0.665 \pm 0.139$ $1,2,3$	$0.674 \pm 0.160$ $1,2,3$
yeast4	$0.668 \pm 0.071$ $2,3$	$0.599 \pm 0.068$	$0.596 \pm 0.065$	$0.727 \pm 0.066$ $1,2,3$	$0.715 \pm 0.062$ $1,2,3$	$0.746 \pm 0.067$ $1,2,3,4,5$	$0.742 \pm 0.074$ $1,2,3,5$
ecoli-0-4-6-vs-5	$0.814 \pm 0.102$	$0.842 \pm 0.099$	$0.842 \pm 0.099$ <sub>1</sub>	$0.882 \pm 0.092$	$0.889 \pm 0.093$	$0.888 \pm 0.086$	$0.889 \pm 0.093$
page-blocks-1-3-vs-4	$0.956 \pm 0.064$ $4.6$	$0.976 \pm 0.054$ $1,4,5,6,7$	$0.976 \pm 0.054$ $1,4,5,6,7$	$0.866 \pm 0.102$	$0.923 \pm 0.086$ $4.6$	$0.876 \pm 0.099$	$0.930 \pm 0.079$ $4.6$
yeast-0-2-5-7-9-vs-3-6-8	$0.844 \pm 0.051$	$0.863 \pm 0.046$	$0.864 \pm 0.046$ 1	$0.897 \pm 0.041$ $1,2,3$	$0.896 \pm 0.039$ $1,2,3$	$0.895 \pm 0.042$ $1,2,3$	$0.897 \pm 0.039$ $1,2,3$
ecoli-0-1-vs-2-3-5	$0.786 \pm 0.114$ $-$	$0.813 \pm 0.094$	$0.813 \pm 0.094$	$0.834 \pm 0.105$ $1,2,3,6$	$0.848 \pm 0.100$	$0.830 \pm 0.108$ <sub>1</sub>	$0.834 \pm 0.100$
ecoli-0-6-7-vs-3-5	$0.821 \pm 0.123$ $-$	$0.808 \pm 0.124$	$0.812 \pm 0.120$ $-$	$0.830 \pm 0.112$	$ \begin{array}{c} 1,2,3,6,7\\0.830 \pm 0.105\\- \end{array} $	$0.839 \pm 0.110$	$0.834 \pm 0.108$ $-$
ecoli-0-3-4-7-vs-5-6	$0.843 \pm 0.085$	$0.848 \pm 0.097$	0.848 ± 0.097	$0.876 \pm 0.078$ $1,2,3$	$0.877 \pm 0.082$ $1,2,3$	$0.888 \pm 0.079$ $1,2,3$	$0.879 \pm 0.074$ <sub>1</sub>
ecoli-0-2-6-7-vs-3-5	$0.813 \pm 0.129$	$0.799 \pm 0.110$	$0.799 \pm 0.110$ $-$	$0.841 \pm 0.113$ $1,2,3,7$	$0.836 \pm 0.104$ $1,2,3$	$0.843 \pm 0.103$ $1,2,3,7$	$0.838 \pm 0.097$ <sub>5</sub>
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	$0.828 \pm 0.116$ $-$	$0.856 \pm 0.113$	$0.856 \pm 0.113$ <sub>1</sub>	$0.885 \pm 0.120$ $1,2,3$	$0.894 \pm 0.126$ $1,2,3$	$0.889 \pm 0.116$ $1,2,3$	$0.894 \pm 0.126$ $1,2,3$

Table 9: Results for AUC metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	3.098	2.585	2.732	4.280	4.829	5.085	5.390
	_	_	-	1,2,3	1,2,3,4	1,2,3,4	1,2,3,4,5

Table 10: Results for mean ranks according to AUC metric

Control   Cont	Dataset	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
cont-0-3-4-w-2	glass4	$0.813 \pm 0.193$			$0.763 \pm 0.273$	$0.762 \pm 0.266$	$0.785 \pm 0.224$	$0.771 \pm 0.262$
$\begin{aligned} glast-0.1-Gw.2 & 0.368 \pm 0.310 & 0.236 \pm 0.305 & 0.236 \pm 0.305 & 0.506 \pm 0.220 & 0.601 \pm 0.226 & 0.886 \pm 0.209 & 0.619 \pm 0.112 \\ yeast-1-(4-S-8-w-7) & 0.266 \pm 0.256 & 0.033 \pm 0.110 & 0.033 \pm 0.110 & 0.393 \pm 0.320 & 0.17 \pm 0.343 & 0.112 \\ 0.864 \pm 0.100 & 0.805 \pm 0.117 & 0.803 \pm 0.110 & 0.803 \pm 0.110 & 0.803 \pm 0.110 & 0.803 \pm 0.110 \\ 0.864 \pm 0.100 & 0.805 \pm 0.117 & 0.803 \pm 0.110 & 0.803 \pm 0.110 & 0.803 \pm 0.110 \\ 0.871 \pm 0.081 & 0.870 \pm 0.083 & 0.877 \pm 0.083 & 0.800 \pm 0.198 & 0.12 \pm 0.182 & 0.847 \pm 0.088 \\ 0.792 \pm 0.364 & 0.992 \pm 0.363 & 0.809 \pm 0.323 & 0.809 \pm 0.320 & 0.112 \pm 0.182 & 0.847 \pm 0.188 \\ 0.792 \pm 0.364 & 0.992 \pm 0.363 & 0.809 \pm 0.312 & 0.808 \pm 0.198 & 0.12 \pm 0.182 & 0.847 \pm 0.188 \\ 0.865 \pm 0.212 & 0.512 \pm 0.818 & 0.709 \pm 0.149 & 0.877 \pm 0.182 & 0.883 \pm 0.114 & 0.877 \pm 0.182 \\ 0.865 \pm 0.212 & 0.512 \pm 0.818 & 0.511 \pm 0.181 & 0.758 \pm 0.077 & 0.741 \pm 0.087 & 0.765 \pm 0.089 \\ 0.870 \pm 0.112 & 0.551 \pm 0.181 & 0.511 \pm 0.181 & 0.758 \pm 0.077 & 0.741 \pm 0.087 & 0.765 \pm 0.089 \\ 0.870 \pm 0.112 & 0.551 \pm 0.181 & 0.511 \pm 0.181 & 0.758 \pm 0.077 & 0.741 \pm 0.087 & 0.765 \pm 0.089 \\ 0.709 \pm 0.143 & 0.747 \pm 0.283 & 0.747 \pm 0.283 & 0.785 \pm 0.309 & 0.779 \pm 0.244 & 0.799 \pm 0.149 \\ 0.870 \pm 0.187 \pm 0.181 + 0.182 & 0.851 \pm 0.129 & 0.853 \pm 0.130 & 0.763 \pm 0.189 \\ 0.799 \pm 0.187 \pm 0.181 + 0.182 & 0.851 \pm 0.129 & 0.779 \pm 0.244 & 0.779 \pm 0.144 & 0.779 \pm 0.14$	ecoli-0-2-3-4- $vs$ -5	$0.834 \pm 0.109$			$0.871 \stackrel{-}{\pm} 0.106$			$0.883 \pm 0.108$
cont 1 - t - u - 5 $cont 2 - 5 - u - 7$ $cont 2 - u - 7$ $cont 2 - u - 1 - u -$	$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 2$	$0.358 \pm 0.310$	$0.235 \pm 0.305$	$0.235 \pm 0.305$				$0.619 \pm 0.199$
passt + I - I - I - I - I - I - I - I - I - I	ecoli-0-1-vs-5	$0.788 \pm 0.125$	$0.846 \pm 0.115$	$0.846 \pm 0.115$	$0.860 \pm 0.102$	$0.877 \pm 0.104$	$0.879 \pm 0.099$	$0.882 \pm 0.102$
$ \begin{array}{c} cold \\ c$	yeast-1-4-5-8-vs-7	$0.261 \pm 0.254$	$0.033 \stackrel{1}{\pm} 0.110$	$0.033 \pm 0.110$				$0.419 \pm 0.222$
$\begin{array}{c} ladiagic + 24.5-6.7-9-w-1 \\ glass & 0.792 & 0.384 \\ coil-0.5-2.4-6-w-5 \\ coil-0.5-2.4-6-w-5 \\ 0.796 & 0.143 \\ coil-0.5-7-6-7-9-w-4 \\ 0.805 & 0.121 \\ 0.805 & 0.121 \\ 0.805 & 0.108 \\ 0.805 & 0.108 \\ 0.805 & 0.108 \\ 0.805 & 0.102 \\ 0.805 & 0.108 \\ 0.805 & 0.108 \\ 0.805 & 0.102 \\ 0.805 & 0.108 \\ 0.805 & 0.108 \\ 0.805 & 0.102 \\ 0.805 & 0.108 \\ 0.$	ecoli4		$0.860 \pm 0.117$	$0.860 \pm 0.117$		$0.900 \pm 0.120$		$0.902 \pm 0.116$
$\begin{array}{c} glass 5 \\ coolb-0-3-4-6-w-5 \\ coolb-0-3-4-6-w-5 \\ coolb-0-3-4-6-w-5 \\ coolb-0-3-4-6-w-5 \\ coolb-0-6-7-w-4 \\ coolb-0-6-7-w-5 \\ coolb-0-6-7-w-5 \\ coolb-0-6-7-w-5 \\ coolb-0-6-7-w-5 \\ coolb-0-1-6-w-5 \\ coolb-0-1-4-w-9-3-6 \\ coolb-0-2-4-w-3-6 \\ coolb-0-1-4-w-3-5 \\ coolb-0-2-4-w-3-6 \\ coolb-0-1-4-w-3-5 \\ coolb-0-2-4-w-3-6 \\ coo$	led7 digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1	$0.871 \pm 0.081$	$0.876 \pm 0.083$	$0.877 \pm 0.083$		$0.512 \pm 0.182$	$0.847 \pm 0.168$	$0.841 \pm 0.149$
$ \begin{array}{c} \cosh \beta - 3 \cdot 4 \cdot e^{-i x_0 - 5} \\ peast - 3 \cdot 5 \cdot 6 \cdot 7 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 5 \cdot 6 \cdot 7 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 5 \cdot 6 \cdot 7 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 5 \cdot 6 \cdot 7 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot 9 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot e^{-i} \\ peast - 6 \cdot 6 \cdot 6 \cdot e^{-i} \\ peast - 6 \cdot e^{-i} \\ peast -$	glass5	$0.729 \pm 0.364$	$0.699 \pm 0.352$					$0.807 \pm 0.320$
$\begin{array}{c} past b \\ past $	ecoli-0-3-4-6-vs-5	$0.796 \pm 0.143$	$0.799 \pm 0.149$	$0.799 \pm 0.149$	$0.877 \pm 0.132$	$0.880 \pm 0.128$		$0.877 \pm 0.130$
$\begin{array}{c} post 6 \\ coli-6-6-7-ev-5 \\ coli-6-6-7-ev-5 \\ coli-6-6-7-ev-5 \\ coli-6-6-7-ev-5 \\ coli-6-6-7-ev-5 \\ coli-6-6-7-ev-5 \\ coli-6-6-8-8-5 \\ coli-6-1-3-7-ev-2-6 \\ coli-6-1-3-2-ev-2-8 \\ coli-6-3-1-3-ev-2-8 \\ coli-6-3-1-3-ev-3-8 \\ coli-6-3-3-8 \\ coli-6-3-3-8 \\ coli-6-3-3-8 \\ coli-6-3-3-8 \\ coli-6-3-3-8 \\ coli$	yeast - 0 - 5 - 6 - 7 - 9 - vs - 4	$0.605 \pm 0.121$	$0.551 \pm 0.181$	$0.551 \pm 0.181$	$0.758 \pm 0.077$	$0.744 \pm 0.087$	$0.765 \pm 0.080$	$0.761 \pm 0.080$
$ \begin{array}{c} cosh-6-ex-s-5\\ glass-6-1-6-ex-5-5\\ cosh-6-ex-5-5\\ cosh-6-ex-5-5\\ cosh-6-ex-5-7-ex-2-6\\ cosh-6-x-3-7-ex-2-6\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-2-8\\ cosh-6-x-3-7-ex-3-8\\ cosh-6-x-3-8\\ cosh-6-x-3-8$	yeast6	$0.670 \pm 0.136$	$0.639 \pm 0.160$	$0.639 \pm 0.160$	$0.769 \pm 0.117$	$0.751 \pm 0.133$	$0.783 \pm 0.105$	$0.759 \pm 0.134$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ecoli-0-6-7-vs-5	$0.811 \pm 0.182$	$0.855 \pm 0.136$	$0.855 \pm 0.136$		$0.856 \pm 0.130$		$0.854 \pm 0.129$
$\begin{array}{c} y_{cost-0-2-5-6-vs-3-7-8-9} \\ coli-0-1-4-7-vs-5-6 \\ coli-0-1-4-7-vs-5-7-vs-7 \\ coli-0-1-4-7-vs-5-7-vs-7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-$	$glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.729 \pm 0.343$	$0.747 \stackrel{1}{\pm} 0.283$	$0.747 \pm 0.283$	$0.785 \stackrel{1}{\pm} 0.269$		$0.792 \stackrel{1}{\pm} 0.270$	$0.787 \pm 0.295$
$\begin{array}{c} y_{outst-0-2-6-6-v_{0}-3-6-v_{0}-3-6} \\ ecoli-0-1-4-r_{v-0}-5-6 \\ y_{outst} \\ -2-s_{out} $	ecoli - 0 - 1 - 3 - 7 - vs - 2 - 6	$0.695 \pm 0.405$	$0.494 \pm 0.450$	$0.494 \stackrel{-}{\pm} 0.450$				$0.731 \pm 0.381$
$\begin{array}{c} ecoli-0-1-4-rws-5-6 \\ yeast5 \\ yeast5 \\ hittle-c2-vs-c4 \\ 1.000 \pm 0.000 \\ 1.000 \pm 0.000$	yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9		$0.672 \pm 0.070$	$0.671 \pm 0.070$	$0.719 \pm 0.075$	$0.715 \pm 0.081$	$0.728 \pm 0.072$	$0.725 \pm 0.078$
$\begin{array}{c} shuttle-c2-vs-c4 \\ shuttle-c2-vs-c4 \\ ccoli-0-1-4-rvs-2-3-5-6 \\ ccoli-0-2-6-rvvs-3-5-6 \\ c$	ecoli - 0 - 1 - 4 - 7 - vs - 5 - 6		$0.796 \pm 0.114$	$0.796 \pm 0.114$	$0.848 \pm 0.131$	$0.885 \pm 0.094$	$0.856 \pm 0.120$	$0.886 \pm 0.093$
$\begin{array}{c} shuttle-c2-vs-c4 \\ coli-0-1-4-7-vs-2-3-5-6 \\ coli-0-1-4-7-vs-2-3-5-6 \\ 0.770\pm0.117 \\ 0.759\pm0.145 \\ 0.770\pm0.117 \\ 0.759\pm0.145 \\ 0.763\pm0.147 \\ 0.770\pm0.117 \\ 0.770\pm0.$	yeast5	$0.793 \pm 0.113$	$0.789 \pm 0.102$	$0.789 \pm 0.102$	$0.888 \pm 0.073$	$0.904 \pm 0.063$	$0.901 \pm 0.073$	$0.904 \pm 0.067$
$\begin{array}{c} y_{cast-0-3-5-9-vs-7-8} \\ y_{cast-1-vs-7} \\ y_{cast-1-vs-1-vs-2} \\ y_{cast-1-vs-1-vs-2} \\ y_{cast-1-vs-1-vs-2} \\ y_{cast-1-vs-1-vs-2} \\ y_{cast-1-vs-1-vs-1-vs-2} \\ y_{cast-1-vs-1-vs-1-vs-1-vs-1-vs-1-vs-1-vs-1-$	shuttle- $c2$ - $vs$ - $c4$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$				$0.994 \pm 0.041$
$\begin{array}{c} y_{oast-1-vs-7} \\ y_{oast-1-vs-7} \\ 0.588 \pm 0.119 \\ y_{oast-1-vs-7} \\ 0.582 \pm 0.181 \\ 0.291 \pm 0.206 \\ 0.299 \pm 0.244 \\ 0$	ecoli - 0 - 1 - 4 - 7 - vs - 2 - 3 - 5 - 6	$0.770 \pm 0.117$	$0.759 \pm 0.145$	$0.763 \pm 0.147$				$0.829 \pm 0.101$
$\begin{array}{c} y_{oast-1-vs-7} \\ y_{oast-1-vs-7} \\ y_{oast-1-vs-7} \\ \end{array} \begin{array}{c} 0.582 \pm 0.181 \\ 0.291 \pm 0.206 \\ 0.299 \pm 0.244 \\ 0.299 \pm 0.244 \\ 0.299 \pm 0.244 \\ 0.498 \pm 0.203 \\ 0.485 \pm 0.203 \\ 0.485 \pm 0.203 \\ 0.485 \pm 0.203 \\ 0.485 \pm 0.202 \\ 0.487 \pm 0.203 \\ 0.485 \pm 0.203 \\ 0.874 \pm 0.008 \\ 0.873 \pm 0.08 \\ 0$	$yeast \hbox{-} 0 \hbox{-} 3 \hbox{-} 5 \hbox{-} 9 \hbox{-} vs \hbox{-} 7 \hbox{-} 8$		$0.437 \pm 0.135$	$0.439 \pm 0.134$	$0.545 \pm 0.128$	$0.544 \pm 0.161$	$0.572 \pm 0.139$	$0.627 \pm 0.124$
$\begin{array}{c} ycast-1-2-8-9-vs-7 \\ ecoli-0-1-4-6-vs-5 \\ ecoli-0-1-4-6-vs-5 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	yeast-1-vs-7	$0.582 \pm 0.181$	$0.291 \pm 0.206$	$0.291 \pm 0.206$	$0.585 \pm 0.162$	$0.532 \pm 0.198$	$0.650 \pm 0.154$	$0.604 \pm 0.168$
$\begin{array}{c} ecoli-O-1-4-G-vs-5\\ glass-O-1-5-vs-2\\ glass-O-1-5-vs-2-5\\ glass-O-1-5-vs-2-5\\ glass-O-1-5-vs-2-5\\ glass-O-1-5-vs-2-5\\ glass-O-1-5-vs-2-5-6\\ glass-O-1-vs-2-3-5\\ glass-O-1-vs-2-5-7-9-vs-3-5-5\\ glass-O-1-vs-3-5\\ glass-O-1-vs-3-5\\ glass-O-1-vs-3-5\\ glass-O-1-vs-3-5\\ glass-O-1-vs-3-5-5\\ glass-O-1-vs-3-5\\ glass-O-1-vs-3-5-5\\ glass-O-1-v$	yeast-1-2-8-9- $vs$ -7	$0.475 \pm 0.209$	$0.299 \pm 0.244$	$0.299 \pm 0.244$	$0.498 \pm 0.203$	$0.453 \pm 0.227$	$0.558 \pm 0.193$	$0.563 \pm 0.202$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ecoli- $0$ - $1$ - $4$ - $6$ - $vs$ - $5$		$0.793 \pm 0.119$	$0.793 \pm 0.119$	$0.871 \pm 0.087$	$0.874 \pm 0.098$	$0.873 \pm 0.084$	$0.873 \pm 0.098$
$\begin{array}{c} yeast-2-vs-4\\ yeast-2-vs-4\\ yeast-2-vs-4\\ yeast-2-vs-5\\ yeast-2-vs-8\\ yeast-2-v$	$glass\hbox{-}0\hbox{-}1\hbox{-}5\hbox{-}vs\hbox{-}2$	$0.389 \pm 0.300$	$0.256 \pm 0.296$	$0.257 \pm 0.297$	$0.606 \pm 0.197$	$0.637 \pm 0.196$	$0.620 \pm 0.196$	$0.655 \pm 0.191$
$\begin{array}{c} glass-0-6-vs-5\\ glass2\\ \\ veast-2-vs-8\\ \\ vowel0\\ \\ glass-0-4-vs-5\\ \\ coli-0-4-6-vs-5\\ \\ veast-0-2-5-7-9-vs-3-5\\ \\ cooli-0-2-6-7-vs-3-5\\ \\ cooli-0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-$	yeast-2-vs-4		$0.794 \pm 0.095$	$0.794 \pm 0.095$	$0.830 \pm 0.074$	$0.831 \pm 0.079$	$0.840 \pm 0.079$	$0.843 \pm 0.085$
$\begin{array}{c} glass2\\ yeast-2-vs-8\\ vowel0\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	$glass\hbox{-} 0\hbox{-} 6\hbox{-} vs\hbox{-} 5$	$0.846 \pm 0.301$	$0.803 \pm 0.274$	$0.803 \pm 0.274$				$0.763 \pm 0.334$
$\begin{array}{c} yeast-2-vs-8\\ vowel0\\ \hline \\ vowel0\\ \hline \\ yeast-0-2-vs-5\\ \hline \\ yeast-0-4-vs-5\\ \hline \\ yeast-0-4-vs-5\\ \hline \\ yeast-0-4-vs-5\\ \hline \\ yeast-0-4-vs-5\\ \hline \\ yeast-0-2-s-7-9-vs-3-5\\ \hline$	glass2	$0.276 \pm 0.311$	$0.283 \pm 0.290$	$0.283 \pm 0.290$				$0.672 \pm 0.225$
$\begin{array}{c} vowel0 \\ glass-0-4-vs-5 \\ glass-0-1-4-6-vs-2 \\ \\ veast4 \\ ecoli-0-4-6-vs-5 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	yeast-2-vs-8	$0.598 \pm 0.252$	$0.560 \pm 0.299$	$0.560 \pm 0.299$	$0.728 \pm 0.153$	$0.718 \pm 0.181$	$0.738 \pm 0.147$	$0.719 \pm 0.181$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	vowel0						$0.913 \pm 0.054$	$0.894 \pm 0.055$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$glass\hbox{-} 0\hbox{-} 4\hbox{-} vs\hbox{-} 5$	$0.991 \pm 0.017$	$0.988 \pm 0.022$	$0.988 \pm 0.022$	$0.980 \pm 0.139$	$0.980 \pm 0.139$	$0.980 \pm 0.139$	$0.980 \pm 0.139$
$\begin{array}{c} yeast4 \\ ecoli-0-4-6-vs-5 \\ page-blocks-1-3-vs-4 \\ ecoli-0-6-7-vs-3-5 \\ ecoli-0-3-4-7-vs-5-6 \\ ecoli-0-2-6-7-vs-3-5 \\ ecoli-0-2-6-$	$glass\hbox{-}0\hbox{-}1\hbox{-}4\hbox{-}6\hbox{-}vs\hbox{-}2$	$0.336 \pm 0.298$	$0.271 \pm 0.317$	$0.276 \pm 0.321$				$0.601 \pm 0.268$
$\begin{array}{c} ecoli-0\text{-}4\text{-}6\text{-}vs\text{-}5 \\ page-blocks\text{-}1\text{-}3\text{-}vs\text{-}4 \\ yeast\text{-}0\text{-}2\text{-}5\text{-}7\text{-}9\text{-}vs\text{-}3\text{-}6\text{-}8 \\ ecoli-0\text{-}2\text{-}6\text{-}7\text{-}vs\text{-}3\text{-}5 \\ ecoli-0\text{-}2\text{-}6\text{-}7\text{-}vs\text{-}3\text{-}5 \\ \end{array}{c} \begin{array}{c} 0.787 \pm 0.136 \\ 0.822 \pm 0.125 \\ 0.974 \pm 0.059 \\ 0.871 \pm 0.059 \\ 0.974 \pm 0.059 \\ 0.853 \pm 0.054 \\ 0.854 \pm 0.059 \\ 0.865 \pm 0.120 \\ 0.806 \pm 0.137 \\ 0.806 \pm 0.129 \\ 0.807 \pm 0.170 \\ 0.807 \pm 0.129 \\ 0.810 \pm 0.168 \\ 0.813 \pm 0.13 \\ 0.823 \pm 0.129 \\ 0.812 \pm 0.12 \\ 0.813 \pm 0.13 \\ 0.823 \pm 0.121 \\ 0.823 \pm 0.121 \\ 0.812 \pm 0.12 \\$	yeast4		$0.413 \pm 0.188$	$0.407 \pm 0.185$	$0.678 \pm 0.097$	$0.662 \pm 0.093$	$0.712 \pm 0.094$	$0.707 \pm 0.102$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ecoli-0-4-6-vs-5	$0.787 \pm 0.136$	1		$0.869 \pm 0.110$	$0.877 \pm 0.111$	$0.878 \pm 0.098$	$0.877 \pm 0.111$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	page-blocks-1-3-vs-4				_	i	_	i
$\begin{array}{c} ecoli - 0 - 1 - vs - 2 - 3 - 5 \\ ecoli - 0 - 6 - 7 - vs - 3 - 5 \\ ecoli - 0 - 6 - 7 - vs - 3 - 5 \\ \end{array}  \begin{array}{c} 0.746 \pm 0.175 \\ - 0.780 \pm 0.206 \\ \end{array}  \begin{array}{c} 0.787 \pm 0.120 \\ - 0.784 \pm 0.227 \\ \end{array}  \begin{array}{c} 0.787 \pm 0.120 \\ - 0.766 \pm 0.205 \\ \end{array}  \begin{array}{c} 0.806 \pm 0.137 \\ 1, 2, 3, 6 \\ - 0.797 \pm 0.170 \\ \end{array}  \begin{array}{c} 0.826 \pm 0.124 \\ 1, 2, 3, 6, 7 \\ 0.807 \pm 0.129 \\ \end{array}  \begin{array}{c} 0.810 \pm 0.168 \\ 0.810 \pm 0.168 \\ \end{array}  \begin{array}{c} 0.812 \pm 0.12 \\ 0.813 \pm 0.13 \\ \end{array}  \begin{array}{c} 0.828 \pm 0.122 \\ 0.828 \pm 0.122 \\ \end{array}  \begin{array}{c} 0.828 \pm 0.122 \\ 0.828 \pm 0.122 \\ 0.828 \pm 0.122 \\ \end{array}  \begin{array}{c} 0.828 \pm 0.122 \\ 0.828 \pm$	yeast-0-2-5-7-9-vs-3-6-8	_	$0.853 \pm 0.054$	$0.854 \pm 0.054$				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ecoli- $0$ - $1$ - $vs$ - $2$ - $3$ - $5$	_	_	_	$0.806 \pm 0.137$	$0.826 \pm 0.124$	$0.805 \pm 0.139$	$0.812 \pm 0.125$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ecoli-0-6-7-vs-3-5	_	_	_	_	_	_	$0.813 \pm 0.134$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ecoli-0-3-4-7-vs-5-6	_	_	_	1,2,3		1.2.3	$0.869 \pm 0.084$ $1,2,3$
shuttle- $c\theta$ - $vs$ - $cd$	ecoli-0-2-6-7-vs-3-5	_	$0.757 \pm 0.175$	_	$0.815 \pm 0.145$ $1,2,3$	$0.813 \pm 0.131$ $1.2.3$	$0.823 \pm 0.129$	$0.819 \pm 0.119$ $4.5$
	shuttle-c0-vs-c4	$1.000 \pm 0.000$	$1.000 \pm 0.000$	$1.000 \pm 0.000$	0.998 ± 0.006	$0.998 \pm 0.006$	0.998 ± 0.006 -	0.998 ± 0.006
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ecoli-0-3-4-vs-5	$0.802 \pm 0.148$					i	$0.870 \pm 0.186$

Table 11: Results for GMEAN metric

	CART (1)	OSB (2)	OKNORAU (3)	TBAC (4)	OTBAC (5)	TBAW (6)	OTBAW (7)
Mean rank	3.098	2.671	2.817	4.061	4.634	5.232	5.488
	_	_	-	2,3	1,2,3,4	1,2,3,4	1,2,3,4,5

Table 12: Results for mean ranks according to GMEAN metric