| Dataset  | kNN (1)           | SB (2)            | OSB (3)                           | KNORAU (4)        |
|--|-------------------|-------------------|-----------------------------------|-------------------|
| glass4   | $0.734 \pm 0.066$ | $0.739 \pm 0.076$ | $0.861 \pm 0.150$                 | $0.747 \pm 0.067$ |
| ecoli- $0$ - $2$ - $3$ - $4$ - $vs$ - $5$                            | $0.861 \pm 0.077$ | $0.886 \pm 0.080$ | $0.906 \pm 0.095$                 | $0.867 \pm 0.080$ |
| $glass \hbox{-} 0 \hbox{-} 1 \hbox{-} 6 \hbox{-} vs \hbox{-} 2$      | $0.550 \pm 0.070$ | $0.514 \pm 0.034$ | $0.737 \pm 0.192$                 | $0.547 \pm 0.068$ |
| ecoli-0-1-vs-5   | $0.873 \pm 0.075$ | $0.898 \pm 0.091$ | $0.895 \pm 0.088$                 | $0.873 \pm 0.075$ |
| yeast-1-4-5-8-vs-7   | $0.494 \pm 0.010$ | $0.492 \pm 0.009$ | $0.564 \pm 0.096$                 | $0.491 \pm 0.012$ |
| ecoli4   | $0.876 \pm 0.079$ | $0.875 \pm 0.079$ | $0.873 \pm 0.082$                 | $0.878 \pm 0.079$ |
| led7digit-0-2-4-5-6-7-8-9-vs-1                                       | $0.597 \pm 0.087$ | $0.617 \pm 0.136$ | $0.817 \pm 0.138$                 | $0.628 \pm 0.122$ |
| glass5   | $0.541 \pm 0.187$ | $0.541 \pm 0.194$ | $0.832 \pm 0.128$                 | $0.544 \pm 0.190$ |
| ecoli- $0$ - $3$ - $4$ - $6$ - $vs$ - $5$                            | $0.859 \pm 0.079$ | $0.884 \pm 0.078$ | $0.898 \pm 0.090$                 | $0.859 \pm 0.085$ |
| yeast-0-5-6-7-9-vs-4   | $0.626 \pm 0.036$ | $0.614 \pm 0.044$ | $0.743 \pm 0.072$                 | $0.634 \pm 0.050$ |
| yeast6   | $0.725 \pm 0.082$ | $0.697 \pm 0.082$ | $0.829 \pm 0.054$                 | $0.695 \pm 0.083$ |
| ecoli-0-6-7-vs-5   | $0.818 \pm 0.132$ | $0.845 \pm 0.149$ | $0.865 \pm 0.092$                 | $0.823 \pm 0.129$ |
| $glass\hbox{-} 0\hbox{-} 1\hbox{-} 6\hbox{-} vs\hbox{-} 5$           | $0.531 \pm 0.202$ | $0.531 \pm 0.202$ | $0.867 \pm 0.147$                 | $0.529 \pm 0.207$ |
| ecoli-0-1-3-7-vs-2-6   | $0.898 \pm 0.199$ | $0.898 \pm 0.199$ | $0.876 \pm 0.189$                 | $0.898 \pm 0.199$ |
| yeast - 0 - 2 - 5 - 6 - vs - 3 - 7 - 8 - 9                           | $0.686 \pm 0.101$ | $0.706 \pm 0.104$ | $0.749 \pm 0.105$                 | $0.712 \pm 0.117$ |
| ecoli-0-1-4-7-vs-5-6   | $0.784 \pm 0.111$ | $0.785 \pm 0.108$ | $0.821 \pm 0.154$                 | $0.812 \pm 0.088$ |
| yeast5   | $0.804 \pm 0.078$ | $0.826 \pm 0.031$ | $0.943 \pm 0.041$                 | $0.826 \pm 0.059$ |
| shuttle-c2-vs-c4   | $0.600 \pm 0.200$ | $0.600 \pm 0.200$ | $1.000 \stackrel{all}{\pm} 0.000$ | $0.750 \pm 0.223$ |
| ecoli - 0 - 1 - 4 - 7 - $vs$ - 2 - 3 - 5 - 6                         | $0.774 \pm 0.124$ | $0.813 \pm 0.114$ | $0.811 \pm 0.092$                 | $0.813 \pm 0.114$ |
| yeast - 0 - 3 - 5 - 9 - vs - 7 - 8                                   | $0.611 \pm 0.115$ | $0.604 \pm 0.121$ | $0.661 \pm 0.103$                 | $0.600 \pm 0.122$ |
| yeast-1- $vs$ -7   | $0.517 \pm 0.033$ | $0.517 \pm 0.033$ | $0.714 \pm 0.053$                 | $0.550 \pm 0.040$ |
| yeast-1-2-8-9- $vs$ -7   | $0.516 \pm 0.033$ | $0.514 \pm 0.034$ | $0.560 \pm 0.064$                 | $0.513 \pm 0.035$ |
| ecoli-0-1-4-6-vs-5   | $0.865 \pm 0.080$ | $0.896 \pm 0.092$ | $0.917 \pm 0.097$                 | $0.871 \pm 0.079$ |
| glass- $0$ - $1$ - $5$ - $vs$ - $2$                                  | $0.514 \pm 0.052$ | $0.520 \pm 0.066$ | $0.713 \pm 0.164$                 | $0.584 \pm 0.125$ |
| yeast-2-vs-4   | $0.838 \pm 0.071$ | $0.840 \pm 0.077$ | $0.863 \pm 0.098$                 | $0.829 \pm 0.071$ |
| glass- $0$ - $6$ - $vs$ - $5$  | $0.645 \pm 0.204$ | $0.745 \pm 0.217$ | $0.929 \pm 0.094$                 | $0.745 \pm 0.217$ |
| glass2   | $0.543 \pm 0.076$ | $0.546 \pm 0.079$ | $0.619 \pm 0.108$                 | $0.546 \pm 0.079$ |
| yeast-2-vs-8   | $0.774 \pm 0.120$ | $0.774 \pm 0.120$ | $0.765 \pm 0.122$                 | $0.774 \pm 0.120$ |
| vowel0   | $0.706 \pm 0.119$ | $0.745 \pm 0.161$ | $0.754 \pm 0.173$                 | $0.728 \pm 0.139$ |
| glass- $0$ - $4$ - $vs$ - $5$  | $0.750 \pm 0.158$ | $0.756 \pm 0.158$ | $0.900 \pm 0.122$                 | $0.750 \pm 0.158$ |
| $glass\hbox{-} 0\hbox{-} 1\hbox{-} 4\hbox{-} 6\hbox{-} vs\hbox{-} 2$ | $0.523 \pm 0.066$ | $0.520 \pm 0.068$ | $0.724 \pm 0.187$                 | $0.548 \pm 0.066$ |
| yeast4   | $0.577 \pm 0.040$ | $0.576 \pm 0.040$ | $0.717 \pm 0.070$                 | $0.576 \pm 0.039$ |
| ecoli-0-4-6-vs-5   | $0.858 \pm 0.079$ | $0.883 \pm 0.078$ | $0.897 \pm 0.090$                 | $0.856 \pm 0.081$ |
| page-blocks-1-3-vs-4   | $0.662 \pm 0.088$ | $0.697 \pm 0.130$ | $0.902 \pm 0.090$                 | $0.697 \pm 0.132$ |
| yeast - 0 - 2 - 5 - 7 - 9 - vs - 3 - 6 - 8                           | $0.826 \pm 0.150$ | $0.825 \pm 0.149$ | $0.832 \pm 0.155$                 | $0.826 \pm 0.147$ |
| ecoli-0-1-vs-2-3-5   | $0.833 \pm 0.095$ | $0.838 \pm 0.147$ | $0.830 \pm 0.104$                 | $0.838 \pm 0.147$ |
| ecoli-0-6-7-vs-3-5   | $0.818 \pm 0.111$ | $0.845 \pm 0.130$ | $0.860 \pm 0.079$                 | $0.863 \pm 0.110$ |
| ecoli-0-3-4-7-vs-5-6   | $0.787 \pm 0.095$ | $0.787 \pm 0.095$ | $0.817 \pm 0.131$                 | $0.785 \pm 0.098$ |
| ecoli-0-2-6-7-vs-3-5   | $0.818 \pm 0.111$ | $0.845 \pm 0.130$ | $0.863 \pm 0.081$                 | $0.845 \pm 0.130$ |
| shuttle-c0-vs-c4   | $0.996 \pm 0.008$ | $0.996 \pm 0.008$ | $0.996 \pm 0.008$                 | $0.992 \pm 0.009$ |
| ecoli-0-3-4-vs-5   | $0.861 \pm 0.077$ | $0.886 \pm 0.080$ | $0.903 \pm 0.090$                 | $0.858 \pm 0.079$ |

Table 1: Results for BAC metric

| Dataset  | kNN (1)           | SB (2)            | OSB (3)           | KNORAU (4)        |
|--|-------------------|-------------------|-------------------|-------------------|
| glass4   | $0.700 \pm 0.085$ | $0.704 \pm 0.093$ | $0.828 \pm 0.190$ | $0.710 \pm 0.089$ |
| ecoli- $0$ - $2$ - $3$ - $4$ - $vs$ - $5$                  | $0.848 \pm 0.090$ | $0.874 \pm 0.095$ | $0.895 \pm 0.109$ | $0.854 \pm 0.093$ |
| glass-0-1-6-vs-2   | $0.213 \pm 0.261$ | $0.096 \pm 0.191$ | $0.631 \pm 0.352$ | $0.211 \pm 0.260$ |
| ecoli-0-1-vs-5   | $0.859 \pm 0.089$ | $0.886 \pm 0.106$ | $0.883 \pm 0.103$ | $0.859 \pm 0.089$ |
| yeast-1-4-5-8-vs-7   | $0.000 \pm 0.000$ | $0.000 \pm 0.000$ | $0.376 \pm 0.218$ | $0.000 \pm 0.000$ |
| ecoli4   | $0.862 \pm 0.092$ | $0.861 \pm 0.092$ | $0.858 \pm 0.098$ | $0.864 \pm 0.093$ |
| led7 digit - 0 - 2 - 4 - 5 - 6 - 7 - 8 - 9 - vs - 1        | $0.355 \pm 0.295$ | $0.369 \pm 0.340$ | $0.807 \pm 0.147$ | $0.462 \pm 0.277$ |
| glass5   | $0.279 \pm 0.342$ | $0.281 \pm 0.344$ | $0.803 \pm 0.152$ | $0.281 \pm 0.344$ |
| ecoli-0-3-4-6-vs-5   | $0.846 \pm 0.091$ | $0.871 \pm 0.093$ | $0.886 \pm 0.105$ | $0.846 \pm 0.096$ |
| yeast-0-5-6-7-9-vs-4                                       | $0.529 \pm 0.083$ | $0.494 \pm 0.116$ | $0.711 \pm 0.098$ | $0.532 \pm 0.103$ |
| yeast6   | $0.663 \pm 0.121$ | $0.619 \pm 0.120$ | $0.814 \pm 0.063$ | $0.618 \pm 0.121$ |
| ecoli-0-6-7-vs-5   | $0.782 \pm 0.174$ | $0.811 \pm 0.192$ | $0.854 \pm 0.102$ | $0.786 \pm 0.172$ |
| glass-0-1-6-vs-5   | $0.279 \pm 0.341$ | $0.279 \pm 0.341$ | $0.841 \pm 0.182$ | $0.279 \pm 0.341$ |
| ecoli-0-1-3-7-vs-2-6                                       | $0.798 \pm 0.399$ | $0.798 \pm 0.399$ | $0.776 \pm 0.388$ | $0.798 \pm 0.399$ |
| yeast-0-2-5-6-vs-3-7-8-9                                   | $0.605 \pm 0.167$ | $0.630 \pm 0.178$ | $0.730 \pm 0.117$ | $0.646 \pm 0.177$ |
| ecoli-0-1-4-7-vs-5-6                                       | $0.755 \pm 0.130$ | $0.756 \pm 0.129$ | $0.814 \pm 0.157$ | $0.789 \pm 0.105$ |
| yeast5   | $0.774 \pm 0.108$ | $0.808 \pm 0.038$ | $0.942 \pm 0.043$ | $0.806 \pm 0.076$ |
| shuttle-c2-vs-c4   | $0.200 \pm 0.400$ | $0.200 \pm 0.400$ | $1.000 \pm 0.000$ | $0.541 \pm 0.454$ |
| ecoli-0-1-4-7-vs-2-3-5-6                                   | $0.740 \pm 0.139$ | $0.788 \pm 0.132$ | $0.796 \pm 0.099$ | $0.788 \pm 0.132$ |
| yeast-0-3-5-9-vs-7-8                                       | $0.426 \pm 0.266$ | $0.364 \pm 0.317$ | $0.615 \pm 0.137$ | $0.363 \pm 0.317$ |
| yeast-1-vs-7   | $0.082 \pm 0.163$ | $0.082 \pm 0.163$ | $0.677 \pm 0.073$ | $0.245 \pm 0.200$ |
| yeast-1-2-8-9-vs-7   | $0.082 \pm 0.163$ | $0.082 \pm 0.163$ | $0.354 \pm 0.188$ | $0.082 \pm 0.163$ |
| ecoli-0-1-4-6-vs-5   | $0.853 \pm 0.093$ | $0.884 \pm 0.106$ | $0.907 \pm 0.112$ | $0.858 \pm 0.092$ |
| $glass\hbox{-} 0\hbox{-} 1\hbox{-} 5\hbox{-} vs\hbox{-} 2$ | $0.110 \pm 0.219$ | $0.114 \pm 0.227$ | $0.611 \pm 0.323$ | $0.272 \pm 0.339$ |
| yeast-2-vs-4   | $0.818 \pm 0.095$ | $0.820 \pm 0.101$ | $0.848 \pm 0.121$ | $0.807 \pm 0.094$ |
| glass-0-6-vs-5   | $0.341 \pm 0.428$ | $0.536 \pm 0.449$ | $0.920 \pm 0.110$ | $0.536 \pm 0.449$ |
| glass2   | $0.212 \pm 0.260$ | $0.214 \pm 0.263$ | $0.488 \pm 0.265$ | $0.214 \pm 0.263$ |
| yeast-2-vs-8   | $0.723 \pm 0.157$ | $0.723 \pm 0.157$ | $0.717 \pm 0.157$ | $0.723 \pm 0.157$ |
| vowel0   | $0.573 \pm 0.298$ | $0.619 \pm 0.335$ | $0.630 \pm 0.346$ | $0.601 \pm 0.318$ |
| glass-0-4-vs-5   | $0.624 \pm 0.332$ | $0.633 \pm 0.334$ | $0.883 \pm 0.143$ | $0.624 \pm 0.332$ |
| glass-0-1-4-6-vs-2   | $0.114 \pm 0.227$ | $0.114 \pm 0.227$ | $0.619 \pm 0.345$ | $0.211 \pm 0.260$ |
| yeast4   | $0.385 \pm 0.096$ | $0.384 \pm 0.096$ | $0.663 \pm 0.114$ | $0.384 \pm 0.095$ |
| ecoli-0-4-6-vs-5   | $0.846 \pm 0.091$ | $0.871 \pm 0.093$ | $0.885 \pm 0.105$ | $0.843 \pm 0.092$ |
| page-blocks-1-3-vs-4                                       | $0.523 \pm 0.266$ | $0.565 \pm 0.303$ | $0.892 \pm 0.104$ | $0.566 \pm 0.304$ |
| yeast-0-2-5-7-9-vs-3-6-8                                   | $0.779 \pm 0.233$ | $0.778 \pm 0.232$ | $0.788 \pm 0.237$ | $0.779 \pm 0.231$ |
| ecoli-0-1-vs-2-3-5   | $0.807 \pm 0.117$ | $0.797 \pm 0.200$ | $0.808 \pm 0.125$ | $0.797 \pm 0.200$ |
| ecoli-0-6-7-vs-3-5   | $0.791 \pm 0.131$ | $0.819 \pm 0.154$ | $0.848 \pm 0.087$ | $0.845 \pm 0.125$ |
| ecoli-0-3-4-7-vs-5-6                                       | $0.756 \pm 0.120$ | $0.756 \pm 0.120$ | $0.809 \pm 0.138$ | $0.755 \pm 0.122$ |
| ecoli-0-2-6-7-vs-3-5                                       | $0.791 \pm 0.131$ | $0.819 \pm 0.154$ | $0.851 \pm 0.089$ | $0.819 \pm 0.154$ |
| shuttle-c0-vs-c4   | $0.996 \pm 0.008$ | $0.996 \pm 0.008$ | $0.996 \pm 0.008$ | $0.992 \pm 0.009$ |
| ecoli-0-3-4-vs-5   | $0.848 \pm 0.090$ | $0.874 \pm 0.095$ | $0.891 \pm 0.105$ | $0.846 \pm 0.091$ |

Table 2: Results for GMEAN metric