

| Dataset                               | GNB (1)                             | OSB (2)                             | OKNORAU (3)                           | TBAC (4)                              | OTBAC (5)                             | TBAW (6)                              | OTBAW (7)                             |
|---------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <i>glass4</i>                         | 0.572 ± 0.129                       | 0.788 ± 0.148                       | 0.788 ± 0.140                         | 0.767 ± 0.155                         | 0.774 ± 0.147                         | 0.695 ± 0.156                         | 0.760 ± 0.150                         |
| <i>ecoli-0-2-3-4-vs-5</i>             | <sup>−</sup><br>0.780 ± 0.098       | <sup>1,6</sup><br>0.812 ± 0.100     | <sup>1,2,6</sup><br>0.891 ± 0.082     | <sup>1,6</sup><br>0.904 ± 0.078       | <sup>1,6,7</sup><br>0.903 ± 0.079     | <sup>1</sup><br>0.901 ± 0.078         | <sup>1,6</sup><br>0.902 ± 0.080       |
| <i>glass-0-1-6-vs-2</i>               | <sup>−</sup><br>0.565 ± 0.111       | <sup>1</sup><br>0.571 ± 0.115       | <sup>1,2</sup><br>0.598 ± 0.147       | <sup>1,2,3,6,7</sup><br>0.710 ± 0.125 | <sup>1,2,3,7</sup><br>0.717 ± 0.116   | <sup>1,2,3</sup><br>0.605 ± 0.126     | <sup>1,2,3</sup><br>0.612 ± 0.104     |
| <i>ecoli-0-1-vs-5</i>                 | <sup>−</sup><br>0.800 ± 0.143       | <sup>−</sup><br>0.859 ± 0.133       | <sup>1,2</sup><br>0.895 ± 0.090       | <sup>1,2,3,6,7</sup><br>0.900 ± 0.075 | <sup>1,2,3,6,7</sup><br>0.898 ± 0.079 | <sup>1,2</sup><br>0.907 ± 0.075       | <sup>1,2</sup><br>0.908 ± 0.074       |
| <i>yeast-1-4-5-8-vs-7</i>             | <sup>−</sup><br>0.544 ± 0.012       | <sup>1</sup><br>0.546 ± 0.014       | <sup>1,2</sup><br>0.572 ± 0.055       | <sup>1,2</sup><br>0.629 ± 0.097       | <sup>1</sup><br>0.629 ± 0.098         | <sup>1,2</sup><br>0.583 ± 0.064       | <sup>1,2,3</sup><br>0.589 ± 0.071     |
| <i>ecoli4</i>                         | <sup>−</sup><br>0.886 ± 0.083       | <sup>1</sup><br>0.896 ± 0.064       | <sup>1,2</sup><br>0.931 ± 0.072       | <sup>1,2,3,6,7</sup><br>0.932 ± 0.082 | <sup>1,2,3,6,7</sup><br>0.933 ± 0.082 | <sup>1,2</sup><br>0.939 ± 0.080       | <sup>1,2</sup><br>0.935 ± 0.081       |
| <i>led7digit-0-2-4-5-6-7-8-9-vs-1</i> | <sup>−</sup><br>0.853 ± 0.073       | <sup>1</sup><br>0.868 ± 0.062       | <sup>1,2</sup><br>0.878 ± 0.067       | <sup>1,2,3</sup><br>0.653 ± 0.089     | <sup>1,2,3,4</sup><br>0.654 ± 0.091   | <sup>1,2,3,5,7</sup><br>0.884 ± 0.080 | <sup>1,2,3,4</sup><br>0.870 ± 0.096   |
| <i>glass5</i>                         | <sup>4,5</sup><br>0.948 ± 0.103     | <sup>4,5</sup><br>0.885 ± 0.156     | <sup>1,2,4,5</sup><br>0.886 ± 0.156   | <sup>−</sup><br>0.903 ± 0.155         | <sup>−</sup><br>0.903 ± 0.155         | <sup>1,2,4,5</sup><br>0.902 ± 0.156   | <sup>1,2,4,5</sup><br>0.901 ± 0.155   |
| <i>ecoli-0-3-4-6-vs-5</i>             | <sup>−</sup><br>0.755 ± 0.102       | <sup>−</sup><br>0.809 ± 0.106       | <sup>−</sup><br>0.894 ± 0.106         | <sup>2,3</sup><br>0.897 ± 0.088       | <sup>2,3</sup><br>0.899 ± 0.089       | <sup>2,3</sup><br>0.893 ± 0.091       | <sup>2,3</sup><br>0.895 ± 0.096       |
| <i>yeast-0-5-6-7-9-vs-4</i>           | <sup>−</sup><br>0.501 ± 0.026       | <sup>1</sup><br>0.500 ± 0.022       | <sup>1,2</sup><br>0.675 ± 0.148       | <sup>1,2</sup><br>0.791 ± 0.045       | <sup>1,2,3</sup><br>0.801 ± 0.053     | <sup>1,2</sup><br>0.720 ± 0.090       | <sup>1,2</sup><br>0.733 ± 0.108       |
| <i>yeast6</i>                         | <sup>2</sup><br>0.636 ± 0.023       | <sup>−</sup><br>0.645 ± 0.029       | <sup>1,2</sup><br>0.763 ± 0.044       | <sup>1,2,3,6,7</sup><br>0.887 ± 0.056 | <sup>1,2,3,6,7</sup><br>0.886 ± 0.056 | <sup>1,2</sup><br>0.837 ± 0.054       | <sup>1,2</sup><br>0.833 ± 0.068       |
| <i>ecoli-0-6-7-vs-5</i>               | <sup>−</sup><br>0.813 ± 0.124       | <sup>1</sup><br>0.835 ± 0.107       | <sup>1,2</sup><br>0.877 ± 0.103       | <sup>all</sup><br>0.870 ± 0.100       | <sup>1,2,3,6,7</sup><br>0.873 ± 0.096 | <sup>1,2,3,7</sup><br>0.871 ± 0.098   | <sup>1,2,3</sup><br>0.868 ± 0.098     |
| <i>glass-0-1-6-vs-5</i>               | <sup>−</sup><br>0.956 ± 0.109       | <sup>−</sup><br>0.889 ± 0.150       | <sup>1,2</sup><br>0.889 ± 0.150       | <sup>1,2,7</sup><br>0.886 ± 0.150     | <sup>1,2,7</sup><br>0.886 ± 0.150     | <sup>1,2</sup><br>0.886 ± 0.151       | <sup>1,2</sup><br>0.886 ± 0.151       |
| <i>ecoli-0-1-3-7-vs-2-6</i>           | <sup>−</sup><br>0.831 ± 0.193       | <sup>−</sup><br>0.844 ± 0.200       | <sup>−</sup><br>0.845 ± 0.200         | <sup>−</sup><br>0.844 ± 0.203         | <sup>−</sup><br>0.841 ± 0.204         | <sup>−</sup><br>0.841 ± 0.202         | <sup>−</sup><br>0.839 ± 0.202         |
| <i>yeast-0-2-5-6-vs-3-7-8-9</i>       | <sup>−</sup><br>0.675 ± 0.048       | <sup>1,6,7</sup><br>0.772 ± 0.053   | <sup>1,6,7</sup><br>0.776 ± 0.047     | <sup>1,5,6,7</sup><br>0.715 ± 0.055   | <sup>1</sup><br>0.763 ± 0.057         | <sup>1</sup><br>0.656 ± 0.055         | <sup>1</sup><br>0.722 ± 0.073         |
| <i>ecoli-0-1-4-7-vs-5-6</i>           | <sup>6</sup><br>0.742 ± 0.131       | <sup>1,4,6,7</sup><br>0.816 ± 0.138 | <sup>1,2,4,6,7</sup><br>0.867 ± 0.114 | <sup>1,6</sup><br>0.854 ± 0.106       | <sup>1,4,6,7</sup><br>0.872 ± 0.104   | <sup>−</sup><br>0.849 ± 0.093         | <sup>1,6</sup><br>0.882 ± 0.081       |
| <i>yeast5</i>                         | <sup>−</sup><br>0.825 ± 0.024       | <sup>1</sup><br>0.800 ± 0.031       | <sup>1,2</sup><br>0.845 ± 0.027       | <sup>1,2</sup><br>0.973 ± 0.023       | <sup>1,2,6</sup><br>0.973 ± 0.023     | <sup>1,2</sup><br>0.970 ± 0.033       | <sup>1,2,6</sup><br>0.969 ± 0.035     |
| <i>shuttle-c2-vs-c4</i>               | <sup>2</sup><br>0.988 ± 0.022       | <sup>−</sup><br>0.991 ± 0.037       | <sup>1,2</sup><br>0.988 ± 0.049       | <sup>1,2,3</sup><br>0.890 ± 0.200     | <sup>1,2,3</sup><br>0.890 ± 0.200     | <sup>1,2,3</sup><br>0.887 ± 0.201     | <sup>1,2,3</sup><br>0.888 ± 0.201     |
| <i>ecoli-0-1-4-7-vs-2-3-5-6</i>       | <sup>6</sup><br>0.651 ± 0.090       | <sup>4,5,6,7</sup><br>0.663 ± 0.119 | <sup>4,5,6,7</sup><br>0.776 ± 0.140   | <sup>−</sup><br>0.807 ± 0.113         | <sup>−</sup><br>0.852 ± 0.102         | <sup>−</sup><br>0.805 ± 0.102         | <sup>−</sup><br>0.865 ± 0.094         |
| <i>yeast-0-3-5-9-vs-7-8</i>           | <sup>−</sup><br>0.550 ± 0.018       | <sup>−</sup><br>0.547 ± 0.032       | <sup>1,2</sup><br>0.673 ± 0.087       | <sup>1,2,3</sup><br>0.670 ± 0.079     | <sup>1,2,3,4,6</sup><br>0.691 ± 0.074 | <sup>1,2</sup><br>0.630 ± 0.054       | <sup>1,2,3,4,6</sup><br>0.650 ± 0.070 |
| <i>yeast-1-vs-7</i>                   | <sup>2</sup><br>0.594 ± 0.037       | <sup>−</sup><br>0.593 ± 0.039       | <sup>1,2,6,7</sup><br>0.683 ± 0.101   | <sup>1,2,6</sup><br>0.671 ± 0.102     | <sup>1,2,6,7</sup><br>0.671 ± 0.102   | <sup>1,2</sup><br>0.663 ± 0.084       | <sup>1,2</sup><br>0.666 ± 0.085       |
| <i>yeast-1-2-8-9-vs-7</i>             | <sup>−</sup><br>0.540 ± 0.011       | <sup>−</sup><br>0.543 ± 0.013       | <sup>1,2</sup><br>0.585 ± 0.053       | <sup>1,2</sup><br>0.685 ± 0.087       | <sup>1,2</sup><br>0.687 ± 0.089       | <sup>1,2</sup><br>0.612 ± 0.068       | <sup>1,2</sup><br>0.615 ± 0.074       |
| <i>ecoli-0-1-4-6-vs-5</i>             | <sup>−</sup><br>0.847 ± 0.098       | <sup>1</sup><br>0.883 ± 0.092       | <sup>1,2</sup><br>0.897 ± 0.088       | <sup>1,2,3,6,7</sup><br>0.902 ± 0.076 | <sup>1,2,3,6,7</sup><br>0.901 ± 0.076 | <sup>1,2,3</sup><br>0.898 ± 0.078     | <sup>1,2,6</sup><br>0.901 ± 0.076     |
| <i>glass-0-1-5-vs-2</i>               | <sup>−</sup><br>0.555 ± 0.134       | <sup>1</sup><br>0.524 ± 0.112       | <sup>1,2</sup><br>0.607 ± 0.150       | <sup>1,2</sup><br>0.702 ± 0.116       | <sup>1,2</sup><br>0.703 ± 0.112       | <sup>1,2</sup><br>0.577 ± 0.079       | <sup>1,2</sup><br>0.585 ± 0.082       |
| <i>yeast-2-vs-4</i>                   | <sup>2</sup><br>0.608 ± 0.128       | <sup>−</sup><br>0.583 ± 0.120       | <sup>1,2</sup><br>0.835 ± 0.116       | <sup>1,2,3,6,7</sup><br>0.863 ± 0.067 | <sup>1,2,3,6,7</sup><br>0.866 ± 0.063 | <sup>2</sup><br>0.861 ± 0.070         | <sup>2</sup><br>0.864 ± 0.062         |
| <i>glass-0-6-vs-5</i>                 | <sup>2</sup><br>0.945 ± 0.140       | <sup>−</sup><br>0.910 ± 0.154       | <sup>1,2</sup><br>0.910 ± 0.154       | <sup>1,2</sup><br>0.860 ± 0.174       | <sup>1,2,7</sup><br>0.860 ± 0.174     | <sup>1,2</sup><br>0.860 ± 0.173       | <sup>1,2</sup><br>0.860 ± 0.173       |
| <i>glass2</i>                         | <sup>4,5,6,7</sup><br>0.607 ± 0.098 | <sup>−</sup><br>0.623 ± 0.093       | <sup>−</sup><br>0.635 ± 0.135         | <sup>−</sup><br>0.738 ± 0.108         | <sup>−</sup><br>0.739 ± 0.109         | <sup>−</sup><br>0.655 ± 0.086         | <sup>−</sup><br>0.667 ± 0.087         |
| <i>yeast-2-vs-8</i>                   | <sup>−</sup><br>0.637 ± 0.090       | <sup>−</sup><br>0.658 ± 0.088       | <sup>1</sup><br>0.779 ± 0.105         | <sup>1,2,3,6,7</sup><br>0.776 ± 0.111 | <sup>1,2,3,6,7</sup><br>0.775 ± 0.111 | <sup>1</sup><br>0.777 ± 0.110         | <sup>1,2</sup><br>0.780 ± 0.112       |
| <i>vowel0</i>                         | <sup>−</sup><br>0.915 ± 0.037       | <sup>1</sup><br>0.904 ± 0.026       | <sup>1,2</sup><br>0.921 ± 0.025       | <sup>1,2</sup><br>0.883 ± 0.060       | <sup>1,2</sup><br>0.921 ± 0.050       | <sup>1,2</sup><br>0.878 ± 0.054       | <sup>1,2,3</sup><br>0.897 ± 0.042     |
| <i>glass-0-4-vs-5</i>                 | <sup>2,4,6,7</sup><br>0.975 ± 0.083 | <sup>4,6</sup><br>0.920 ± 0.123     | <sup>2,4,6,7</sup><br>0.925 ± 0.121   | <sup>−</sup><br>0.935 ± 0.120         | <sup>1,2,4,6,7</sup><br>0.940 ± 0.117 | <sup>−</sup><br>0.935 ± 0.120         | <sup>6</sup><br>0.940 ± 0.117         |
| <i>glass-0-1-4-6-vs-2</i>             | <sup>2,3</sup><br>0.579 ± 0.128     | <sup>−</sup><br>0.585 ± 0.132       | <sup>−</sup><br>0.620 ± 0.150         | <sup>2</sup><br>0.724 ± 0.105         | <sup>2,3</sup><br>0.730 ± 0.106       | <sup>2</sup><br>0.636 ± 0.100         | <sup>2,3</sup><br>0.641 ± 0.084       |
| <i>yeast4</i>                         | <sup>−</sup><br>0.551 ± 0.039       | <sup>−</sup><br>0.526 ± 0.025       | <sup>1,2</sup><br>0.577 ± 0.046       | <sup>1,2,3,6,7</sup><br>0.809 ± 0.066 | <sup>1,2,3,6,7</sup><br>0.812 ± 0.064 | <sup>1,2</sup><br>0.672 ± 0.078       | <sup>1,2</sup><br>0.662 ± 0.101       |
| <i>ecoli-0-4-6-vs-5</i>               | <sup>2</sup><br>0.851 ± 0.114       | <sup>−</sup><br>0.882 ± 0.103       | <sup>1,2</sup><br>0.899 ± 0.095       | <sup>1,2,3,6,7</sup><br>0.901 ± 0.082 | <sup>1,2,3,6,7</sup><br>0.900 ± 0.082 | <sup>1,2,3,7</sup><br>0.902 ± 0.083   | <sup>1,2,3</sup><br>0.901 ± 0.084     |
| <i>page-blocks-1-3-vs-4</i>           | <sup>−</sup><br>0.765 ± 0.095       | <sup>1</sup><br>0.772 ± 0.100       | <sup>1,2</sup><br>0.820 ± 0.128       | <sup>1,2</sup><br>0.750 ± 0.094       | <sup>1,2</sup><br>0.790 ± 0.105       | <sup>1,2</sup><br>0.747 ± 0.091       | <sup>1,2</sup><br>0.754 ± 0.090       |
| <i>yeast-0-2-5-7-9-vs-3-6-8</i>       | <sup>−</sup><br>0.576 ± 0.028       | <sup>−</sup><br>0.547 ± 0.054       | <sup>1,2,4,6,7</sup><br>0.747 ± 0.135 | <sup>−</sup><br>0.894 ± 0.033         | <sup>1,2,4,6,7</sup><br>0.892 ± 0.034 | <sup>−</sup><br>0.841 ± 0.074         | <sup>4</sup><br>0.876 ± 0.064         |
| <i>ecoli-0-1-vs-2-3-5</i>             | <sup>2</sup><br>0.607 ± 0.157       | <sup>−</sup><br>0.628 ± 0.168       | <sup>1,2</sup><br>0.823 ± 0.142       | <sup>1,2,3,6,7</sup><br>0.825 ± 0.114 | <sup>1,2,3,6</sup><br>0.836 ± 0.114   | <sup>1,2,3</sup><br>0.847 ± 0.099     | <sup>1,2,3,6</sup><br>0.869 ± 0.085   |
| <i>ecoli-0-6-7-vs-3-5</i>             | <sup>−</sup><br>0.587 ± 0.158       | <sup>−</sup><br>0.631 ± 0.173       | <sup>1,2</sup><br>0.694 ± 0.147       | <sup>1,2</sup><br>0.800 ± 0.094       | <sup>1,2</sup><br>0.828 ± 0.106       | <sup>1,2</sup><br>0.804 ± 0.092       | <sup>1,2,3,4,5</sup><br>0.827 ± 0.095 |
| <i>ecoli-0-3-4-7-vs-5-6</i>           | <sup>−</sup><br>0.778 ± 0.080       | <sup>1</sup><br>0.834 ± 0.089       | <sup>1,2</sup><br>0.894 ± 0.081       | <sup>1,2,3</sup><br>0.874 ± 0.078     | <sup>1,2,3,6</sup><br>0.886 ± 0.079   | <sup>1,2,3</sup><br>0.884 ± 0.091     | <sup>1,2,3</sup><br>0.892 ± 0.081     |
| <i>ecoli-0-2-6-7-vs-3-5</i>           | <sup>−</sup><br>0.586 ± 0.145       | <sup>1</sup><br>0.635 ± 0.157       | <sup>1,2</sup><br>0.687 ± 0.143       | <sup>1,2</sup><br>0.813 ± 0.102       | <sup>1,2</sup><br>0.821 ± 0.105       | <sup>1,2</sup><br>0.793 ± 0.091       | <sup>1,2</sup><br>0.824 ± 0.105       |
| <i>shuttle-c0-vs-c4</i>               | <sup>−</sup><br>0.990 ± 0.012       | <sup>1</sup><br>0.989 ± 0.014       | <sup>1,2</sup><br>0.989 ± 0.014       | <sup>1,2,3,6</sup><br>0.994 ± 0.009   | <sup>1,2,3,6</sup><br>0.994 ± 0.009   | <sup>1,2,3</sup><br>0.994 ± 0.009     | <sup>1,2,3,5,6</sup><br>0.994 ± 0.009 |
| <i>ecoli-0-3-4-vs-5</i>               | <sup>−</sup><br>0.788 ± 0.105       | <sup>−</sup><br>0.826 ± 0.111       | <sup>−</sup><br>0.893 ± 0.110         | <sup>1,2,3</sup><br>0.908 ± 0.103     | <sup>1,2,3</sup><br>0.907 ± 0.104     | <sup>1,2,3</sup><br>0.910 ± 0.102     | <sup>1,2,3</sup><br>0.909 ± 0.102     |
|                                       | <sup>−</sup>                        | <sup>1</sup>                        | <sup>1,2</sup>                        | <sup>1,2,3</sup>                      | <sup>1,2,3</sup>                      | <sup>1,2,3</sup>                      | <sup>1,2,3</sup>                      |

Table 1: Results for BAC metric

|                  | GNB (1)      | OSB (2)      | OKNORAU (3)    | TBAC (4)         | OTBAC (5)      | TBAW (6)       | OTBAW (7)        |
|------------------|--------------|--------------|----------------|------------------|----------------|----------------|------------------|
| <i>Mean rank</i> | 2.195        | 2.476        | 4.183          | 4.890            | 5.573          | 3.951          | 4.732            |
|                  | <sup>−</sup> | <sup>−</sup> | <sup>1,2</sup> | <sup>1,2,6</sup> | <sup>all</sup> | <sup>1,2</sup> | <sup>1,2,6</sup> |

Table 2: Results for mean ranks according to BAC metric

| Dataset                               | GNB (1)                               | OSB (2)                             | OKNORAU (3)                           | TBAC (4)                              | OTBAC (5)                             | TBAW (6)                            | OTBAW (7)                             |
|---------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|
| <i>glass4</i>                         | 0.190 ± 0.222                         | 0.450 ± 0.201                       | 0.500 ± 0.207                         | 0.482 ± 0.245                         | 0.497 ± 0.239                         | 0.344 ± 0.222                       | 0.439 ± 0.204                         |
| <i>ecoli-0-2-3-4-vs-5</i>             | <sup>1,6</sup><br>0.442 ± 0.170       | <sup>1,6</sup><br>0.499 ± 0.191     | <sup>1,2,6</sup><br>0.717 ± 0.161     | <sup>1,6,7</sup><br>0.802 ± 0.124     | <sup>1,6,7</sup><br>0.799 ± 0.128     | <sup>1</sup><br>0.786 ± 0.129       | <sup>1,6</sup><br>0.779 ± 0.131       |
| <i>glass-0-1-6-vs-2</i>               | <sup>1</sup><br>0.184 ± 0.057         | <sup>1</sup><br>0.186 ± 0.062       | <sup>1,2</sup><br>0.212 ± 0.106       | <sup>1,2,3,6,7</sup><br>0.300 ± 0.104 | <sup>1,2,3,7</sup><br>0.304 ± 0.099   | <sup>1,2,3</sup><br>0.202 ± 0.065   | <sup>1,2,3</sup><br>0.204 ± 0.055     |
| <i>ecoli-0-1-vs-5</i>                 | <sup>1,2</sup><br>0.667 ± 0.299       | <sup>1,2</sup><br>0.747 ± 0.247     | <sup>1,2</sup><br>0.832 ± 0.139       | <sup>1,2,3,6,7</sup><br>0.865 ± 0.102 | <sup>1,2,3,6,7</sup><br>0.861 ± 0.109 | <sup>1,2</sup><br>0.871 ± 0.105     | <sup>1,2</sup><br>0.873 ± 0.103       |
| <i>yeast-1-4-5-8-vs-7</i>             | <sup>1,2,3</sup><br>0.090 ± 0.002     | <sup>1</sup><br>0.091 ± 0.002       | <sup>1,2</sup><br>0.097 ± 0.012       | <sup>1,2</sup><br>0.144 ± 0.052       | <sup>1,2</sup><br>0.144 ± 0.052       | <sup>1,2,3</sup><br>0.103 ± 0.027   | <sup>1,2,3</sup><br>0.108 ± 0.033     |
| <i>ecoli4</i>                         | <sup>1,2,3,6,7</sup><br>0.454 ± 0.158 | <sup>1</sup><br>0.459 ± 0.129       | <sup>1,2</sup><br>0.695 ± 0.185       | <sup>1,2,3,6,7</sup><br>0.834 ± 0.152 | <sup>1,2,3,6,7</sup><br>0.796 ± 0.160 | <sup>1,2</sup><br>0.812 ± 0.157     | <sup>1,2</sup><br>0.776 ± 0.164       |
| <i>led7digit-0-2-4-5-6-7-8-9-vs-1</i> | <sup>1,2,3,7</sup><br>0.553 ± 0.117   | <sup>1</sup><br>0.535 ± 0.093       | <sup>1,2</sup><br>0.611 ± 0.140       | <sup>1,2,3,5,7</sup><br>0.386 ± 0.175 | <sup>1,2,3,7</sup><br>0.385 ± 0.176   | <sup>1,2,3,7</sup><br>0.603 ± 0.123 | <sup>1,2,3</sup><br>0.581 ± 0.130     |
| <i>glass5</i>                         | <sup>2,4,5</sup><br>0.747 ± 0.183     | <sup>4,5</sup><br>0.675 ± 0.249     | <sup>1,2,4,5</sup><br>0.688 ± 0.257   | <sup>1</sup><br>0.803 ± 0.277         | <sup>1</sup><br>0.803 ± 0.277         | <sup>1,2,4,5</sup><br>0.784 ± 0.277 | <sup>2,4,5</sup><br>0.780 ± 0.276     |
| <i>ecoli-0-3-4-6-vs-5</i>             | <sup>1,2,3</sup><br>0.384 ± 0.145     | <sup>1,2,3</sup><br>0.467 ± 0.175   | <sup>1,2,3</sup><br>0.733 ± 0.201     | <sup>1,2,3</sup><br>0.772 ± 0.148     | <sup>1,2,3</sup><br>0.768 ± 0.149     | <sup>1,2,3</sup><br>0.763 ± 0.162   | <sup>1,2,3</sup><br>0.762 ± 0.170     |
| <i>yeast-0-5-6-7-9-vs-4</i>           | <sup>1,2</sup><br>0.176 ± 0.008       | <sup>1</sup><br>0.176 ± 0.007       | <sup>1,2</sup><br>0.304 ± 0.115       | <sup>1,2,3</sup><br>0.464 ± 0.083     | <sup>1,2,3</sup><br>0.460 ± 0.094     | <sup>1,2</sup><br>0.383 ± 0.127     | <sup>1,2</sup><br>0.377 ± 0.119       |
| <i>yeast6</i>                         | <sup>2</sup><br>0.063 ± 0.004         | <sup>1</sup><br>0.064 ± 0.005       | <sup>1,2</sup><br>0.105 ± 0.026       | <sup>1,2,3,6,7</sup><br>0.378 ± 0.052 | <sup>1,2,3,6,7</sup><br>0.372 ± 0.054 | <sup>1,2,3</sup><br>0.205 ± 0.114   | <sup>1,2,3</sup><br>0.219 ± 0.130     |
| <i>ecoli-0-6-7-vs-5</i>               | <sup>1,2,3,6</sup><br>0.610 ± 0.231   | <sup>1</sup><br>0.514 ± 0.159       | <sup>1,2</sup><br>0.688 ± 0.195       | <sup>all</sup><br>0.758 ± 0.165       | <sup>1,2,3,6,7</sup><br>0.748 ± 0.153 | <sup>1,2,3</sup><br>0.732 ± 0.163   | <sup>1,2,3,6</sup><br>0.714 ± 0.176   |
| <i>glass-0-1-6-vs-5</i>               | <sup>2</sup><br>0.807 ± 0.227         | <sup>1</sup><br>0.754 ± 0.266       | <sup>1,2</sup><br>0.754 ± 0.266       | <sup>1,2,3,7</sup><br>0.776 ± 0.267   | <sup>1,2,3,7</sup><br>0.776 ± 0.267   | <sup>1,2,3</sup><br>0.773 ± 0.269   | <sup>1,2</sup><br>0.773 ± 0.269       |
| <i>ecoli-0-1-3-7-vs-2-6</i>           | <sup>1</sup><br>0.421 ± 0.251         | <sup>1</sup><br>0.605 ± 0.348       | <sup>1</sup><br>0.631 ± 0.359         | <sup>1</sup><br>0.659 ± 0.369         | <sup>1</sup><br>0.626 ± 0.364         | <sup>1</sup><br>0.586 ± 0.344       | <sup>1</sup><br>0.577 ± 0.337         |
| <i>yeast-0-2-5-6-vs-3-7-8-9</i>       | <sup>1</sup><br>0.466 ± 0.094         | <sup>1</sup><br>0.590 ± 0.082       | <sup>1,7</sup><br>0.603 ± 0.077       | <sup>1,2,6,7</sup><br>0.549 ± 0.103   | <sup>1</sup><br>0.608 ± 0.090         | <sup>1</sup><br>0.438 ± 0.116       | <sup>1</sup><br>0.543 ± 0.119         |
| <i>ecoli-0-1-4-7-vs-5-6</i>           | <sup>1,4,6,7</sup><br>0.590 ± 0.239   | <sup>1,4,6,7</sup><br>0.648 ± 0.235 | <sup>1,2,4,6,7</sup><br>0.742 ± 0.192 | <sup>1,6</sup><br>0.771 ± 0.183       | <sup>1,4,6,7</sup><br>0.779 ± 0.181   | <sup>1</sup><br>0.749 ± 0.154       | <sup>1,6</sup><br>0.780 ± 0.141       |
| <i>yeast5</i>                         | <sup>1,2</sup><br>0.152 ± 0.019       | <sup>1</sup><br>0.135 ± 0.019       | <sup>1,2</sup><br>0.170 ± 0.027       | <sup>1,2</sup><br>0.611 ± 0.067       | <sup>1,2,3</sup><br>0.611 ± 0.067     | <sup>1,2</sup><br>0.596 ± 0.101     | <sup>1,2</sup><br>0.595 ± 0.105       |
| <i>shuttle-c2-vs-c4</i>               | <sup>2</sup><br>0.881 ± 0.211         | <sup>1</sup><br>0.956 ± 0.136       | <sup>1,2</sup><br>0.968 ± 0.109       | <sup>1,2,3</sup><br>0.787 ± 0.398     | <sup>1,2,3</sup><br>0.787 ± 0.398     | <sup>1,2,3</sup><br>0.749 ± 0.391   | <sup>1,2,3</sup><br>0.769 ± 0.395     |
| <i>ecoli-0-1-4-7-vs-2-3-5-6</i>       | <sup>6,7</sup><br>0.426 ± 0.208       | <sup>6,7</sup><br>0.431 ± 0.224     | <sup>1,6,7</sup><br>0.643 ± 0.247     | <sup>1</sup><br>0.722 ± 0.187         | <sup>1</sup><br>0.778 ± 0.165         | <sup>1</sup><br>0.711 ± 0.166       | <sup>1</sup><br>0.774 ± 0.148         |
| <i>yeast-0-3-5-9-vs-7-8</i>           | <sup>1,2,3</sup><br>0.196 ± 0.006     | <sup>1,2,3</sup><br>0.196 ± 0.019   | <sup>1,2</sup><br>0.309 ± 0.101       | <sup>1,2,3</sup><br>0.379 ± 0.112     | <sup>1,2,3,4,6</sup><br>0.401 ± 0.109 | <sup>1,2,3</sup><br>0.338 ± 0.126   | <sup>1,2,3,4,6</sup><br>0.354 ± 0.129 |
| <i>yeast-1-vs-7</i>                   | <sup>1,2,3,6</sup><br>0.148 ± 0.011   | <sup>1</sup><br>0.148 ± 0.012       | <sup>1,2</sup><br>0.205 ± 0.059       | <sup>1,2,3,6</sup><br>0.242 ± 0.094   | <sup>1,2,3,6,7</sup><br>0.228 ± 0.072 | <sup>1,2,3</sup><br>0.203 ± 0.078   | <sup>1,2,3</sup><br>0.191 ± 0.046     |
| <i>yeast-1-2-8-9-vs-7</i>             | <sup>1,2,3,6,7</sup><br>0.066 ± 0.001 | <sup>1,2</sup><br>0.067 ± 0.001     | <sup>1,2</sup><br>0.074 ± 0.008       | <sup>1,2,3,6,7</sup><br>0.170 ± 0.056 | <sup>1,2,3,6,7</sup><br>0.170 ± 0.057 | <sup>1,2</sup><br>0.097 ± 0.049     | <sup>1,2</sup><br>0.103 ± 0.054       |
| <i>ecoli-0-1-4-6-vs-5</i>             | <sup>1,2,3,6,7</sup><br>0.652 ± 0.214 | <sup>1</sup><br>0.635 ± 0.178       | <sup>1,2</sup><br>0.741 ± 0.173       | <sup>1,2,3,6,7</sup><br>0.809 ± 0.107 | <sup>1,2,3,6,7</sup><br>0.802 ± 0.110 | <sup>1,2,3</sup><br>0.788 ± 0.101   | <sup>1,2,6</sup><br>0.795 ± 0.107     |
| <i>glass-0-1-5-vs-2</i>               | <sup>1,2,3</sup><br>0.200 ± 0.081     | <sup>1</sup><br>0.182 ± 0.061       | <sup>1,2</sup><br>0.234 ± 0.112       | <sup>1,2,3</sup><br>0.305 ± 0.097     | <sup>1,2,3</sup><br>0.306 ± 0.095     | <sup>1,2,3</sup><br>0.207 ± 0.047   | <sup>1,2,3</sup><br>0.210 ± 0.050     |
| <i>yeast-2-vs-4</i>                   | <sup>2</sup><br>0.301 ± 0.222         | <sup>1</sup><br>0.240 ± 0.114       | <sup>1,2,6</sup><br>0.591 ± 0.159     | <sup>1,2,3,6,7</sup><br>0.759 ± 0.114 | <sup>1,2,3,6,7</sup><br>0.734 ± 0.102 | <sup>2</sup><br>0.724 ± 0.145       | <sup>2</sup><br>0.690 ± 0.106         |
| <i>glass-0-6-vs-5</i>                 | <sup>2</sup><br>0.867 ± 0.273         | <sup>1</sup><br>0.821 ± 0.282       | <sup>1,2</sup><br>0.821 ± 0.282       | <sup>all</sup><br>0.773 ± 0.322       | <sup>1,2,3,7</sup><br>0.773 ± 0.322   | <sup>1,2,3,7</sup><br>0.769 ± 0.321 | <sup>1,2,3</sup><br>0.769 ± 0.321     |
| <i>glass2</i>                         | <sup>4,5,6,7</sup><br>0.186 ± 0.050   | <sup>1</sup><br>0.193 ± 0.048       | <sup>1</sup><br>0.212 ± 0.082         | <sup>1</sup><br>0.319 ± 0.096         | <sup>1</sup><br>0.321 ± 0.102         | <sup>1</sup><br>0.210 ± 0.053       | <sup>1</sup><br>0.215 ± 0.053         |
| <i>yeast-2-vs-8</i>                   | <sup>1,2,3,6,7</sup><br>0.193 ± 0.205 | <sup>1,2</sup><br>0.188 ± 0.185     | <sup>1,2</sup><br>0.501 ± 0.175       | <sup>1,2,3,6,7</sup><br>0.665 ± 0.200 | <sup>1,2,3,6,7</sup><br>0.661 ± 0.201 | <sup>1</sup><br>0.653 ± 0.213       | <sup>1,2</sup><br>0.654 ± 0.209       |
| <i>vowel0</i>                         | <sup>2</sup><br>0.720 ± 0.049         | <sup>1</sup><br>0.596 ± 0.039       | <sup>1,2</sup><br>0.642 ± 0.034       | <sup>1,2,3</sup><br>0.804 ± 0.079     | <sup>1,2,3</sup><br>0.801 ± 0.066     | <sup>1,2,3</sup><br>0.754 ± 0.076   | <sup>1,2,3</sup><br>0.659 ± 0.055     |
| <i>glass-0-4-vs-5</i>                 | <sup>2,3,7</sup><br>0.925 ± 0.170     | <sup>1</sup><br>0.853 ± 0.197       | <sup>2</sup><br>0.859 ± 0.197         | <sup>1,2,3,6,7</sup><br>0.907 ± 0.189 | <sup>1,2,3,6,7</sup><br>0.913 ± 0.186 | <sup>1,2,3,7</sup><br>0.907 ± 0.189 | <sup>2,3</sup><br>0.913 ± 0.186       |
| <i>glass-0-1-4-6-vs-2</i>             | <sup>2,3</sup><br>0.177 ± 0.060       | <sup>1</sup><br>0.179 ± 0.061       | <sup>1</sup><br>0.208 ± 0.088         | <sup>2</sup><br>0.311 ± 0.092         | <sup>2,3</sup><br>0.313 ± 0.092       | <sup>2</sup><br>0.203 ± 0.038       | <sup>2,3</sup><br>0.205 ± 0.033       |
| <i>yeast4</i>                         | <sup>1,2,3,6,7</sup><br>0.074 ± 0.006 | <sup>1,2</sup><br>0.070 ± 0.004     | <sup>1,2</sup><br>0.079 ± 0.008       | <sup>1,2,3,6,7</sup><br>0.326 ± 0.057 | <sup>1,2,3,6,7</sup><br>0.325 ± 0.055 | <sup>1,2</sup><br>0.146 ± 0.096     | <sup>1,2</sup><br>0.160 ± 0.114       |
| <i>ecoli-0-4-6-vs-5</i>               | <sup>1,2,3,6,7</sup><br>0.670 ± 0.212 | <sup>1,2</sup><br>0.683 ± 0.189     | <sup>1,2</sup><br>0.770 ± 0.186       | <sup>1,2,3,6,7</sup><br>0.785 ± 0.140 | <sup>1,2,3,6,7</sup><br>0.782 ± 0.141 | <sup>1,2,3</sup><br>0.782 ± 0.148   | <sup>1,2,3,6</sup><br>0.775 ± 0.146   |
| <i>page-blocks-1-3-vs-4</i>           | <sup>1,2</sup><br>0.502 ± 0.143       | <sup>1,2</sup><br>0.489 ± 0.147     | <sup>1,2</sup><br>0.553 ± 0.180       | <sup>1,2</sup><br>0.537 ± 0.166       | <sup>1,2</sup><br>0.582 ± 0.169       | <sup>1,2</sup><br>0.526 ± 0.156     | <sup>1,2</sup><br>0.521 ± 0.144       |
| <i>yeast-0-2-5-7-9-vs-3-6-8</i>       | <sup>2</sup><br>0.206 ± 0.012         | <sup>1</sup><br>0.201 ± 0.062       | <sup>1,2</sup><br>0.400 ± 0.177       | <sup>1,2,6,7</sup><br>0.718 ± 0.098   | <sup>all</sup><br>0.687 ± 0.104       | <sup>1,2</sup><br>0.606 ± 0.226     | <sup>1,2</sup><br>0.656 ± 0.147       |
| <i>ecoli-0-1-vs-2-3-5</i>             | <sup>2</sup><br>0.267 ± 0.338         | <sup>1</sup><br>0.306 ± 0.345       | <sup>1,2</sup><br>0.728 ± 0.262       | <sup>all</sup><br>0.753 ± 0.217       | <sup>1,2,3,6</sup><br>0.765 ± 0.213   | <sup>1,2,3</sup><br>0.780 ± 0.159   | <sup>1,2,3</sup><br>0.806 ± 0.136     |
| <i>ecoli-0-6-7-vs-3-5</i>             | <sup>1,2</sup><br>0.202 ± 0.307       | <sup>1</sup><br>0.281 ± 0.299       | <sup>1,2</sup><br>0.446 ± 0.257       | <sup>1,2</sup><br>0.669 ± 0.167       | <sup>1,2</sup><br>0.686 ± 0.165       | <sup>1,2</sup><br>0.652 ± 0.168     | <sup>1,2,4</sup><br>0.662 ± 0.163     |
| <i>ecoli-0-3-4-7-vs-5-6</i>           | <sup>1,2,3,6</sup><br>0.414 ± 0.114   | <sup>1</sup><br>0.515 ± 0.140       | <sup>1,2</sup><br>0.730 ± 0.126       | <sup>1,2,3</sup><br>0.765 ± 0.123     | <sup>1,2,3,6</sup><br>0.776 ± 0.122   | <sup>1,2,3</sup><br>0.754 ± 0.145   | <sup>1,2,3</sup><br>0.756 ± 0.130     |
| <i>ecoli-0-2-6-7-vs-3-5</i>           | <sup>1,2,3,7</sup><br>0.216 ± 0.296   | <sup>1</sup><br>0.316 ± 0.288       | <sup>1,2</sup><br>0.439 ± 0.267       | <sup>1,2</sup><br>0.677 ± 0.183       | <sup>1,2,3,7</sup><br>0.675 ± 0.177   | <sup>1,2</sup><br>0.617 ± 0.179     | <sup>1,2</sup><br>0.648 ± 0.177       |
| <i>shuttle-c0-vs-c4</i>               | <sup>1,2,3,6,7</sup><br>0.978 ± 0.022 | <sup>1</sup><br>0.977 ± 0.022       | <sup>1,2</sup><br>0.977 ± 0.022       | <sup>1,2,3,6,7</sup><br>0.994 ± 0.009 | <sup>1,2,3,6,7</sup><br>0.994 ± 0.009 | <sup>1,2,3</sup><br>0.994 ± 0.009   | <sup>1,2,3</sup><br>0.994 ± 0.009     |
| <i>ecoli-0-3-4-vs-5</i>               | <sup>1,2,3</sup><br>0.443 ± 0.172     | <sup>1</sup><br>0.518 ± 0.188       | <sup>1,2</sup><br>0.729 ± 0.182       | <sup>1,2,3</sup><br>0.796 ± 0.160     | <sup>1,2,3</sup><br>0.792 ± 0.160     | <sup>1,2,3</sup><br>0.796 ± 0.161   | <sup>1,2,3</sup><br>0.793 ± 0.161     |
|                                       | <sup>1</sup>                          | <sup>1</sup>                        | <sup>1,2</sup>                        | <sup>1,2,3</sup>                      | <sup>1,2,3</sup>                      | <sup>1,2,3</sup>                    | <sup>1,2,3</sup>                      |

Table 3: Results for F1 metric

|                  | GNB (1) | OSB (2) | OKNORAU (3) | TBAC (4)  | OTBAC (5) | TBAW (6) | OTBAW (7) |
|------------------|---------|---------|-------------|-----------|-----------|----------|-----------|
| <i>Mean rank</i> | 2.049   | 2.037   | 3.646       | 5.915     | 5.817     | 4.146    | 4.390     |
|                  | –       | –       | 1,2         | 1,2,3,6,7 | 1,2,3,6,7 | 1,2      | 1,2,3     |

Table 4: Results for mean ranks according to F1 metric

| Dataset                               | GNB (1)          | OSB (2)          | OKNORAU (3)        | TBAC (4)             | OTBAC (5)            | TBAW (6)           | OTBAW (7)          |
|---------------------------------------|------------------|------------------|--------------------|----------------------|----------------------|--------------------|--------------------|
| <i>glass4</i>                         | 0.207 ± 0.281    | 0.369 ± 0.202    | 0.458 ± 0.238      | 0.446 ± 0.268        | 0.453 ± 0.254        | 0.293 ± 0.222      | 0.380 ± 0.210      |
| <i>ecoli-0-2-3-4-vs-5</i>             | <sup>−</sup>     | <sup>1,6</sup>   | <sup>1,2,6,7</sup> | <sup>1,2,6,7</sup>   | <sup>1,2,6,7</sup>   | <sup>−</sup>       | <sup>1,6</sup>     |
|                                       | 0.337 ± 0.200    | 0.396 ± 0.226    | 0.650 ± 0.214      | 0.798 ± 0.169        | 0.793 ± 0.175        | 0.769 ± 0.176      | 0.752 ± 0.178      |
| <i>glass-0-1-6-vs-2</i>               | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup>   | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.106 ± 0.034    | 0.106 ± 0.037    | 0.129 ± 0.070      | 0.192 ± 0.072        | 0.194 ± 0.069        | 0.115 ± 0.039      | 0.116 ± 0.033      |
| <i>ecoli-0-1-vs-5</i>                 | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>     | <sup>1,2</sup>     |
|                                       | 0.785 ± 0.364    | 0.802 ± 0.273    | 0.897 ± 0.149      | 0.960 ± 0.094        | 0.958 ± 0.099        | 0.954 ± 0.109      | 0.959 ± 0.105      |
| <i>yeast-1-4-5-8-vs-7</i>             | <sup>−</sup>     | <sup>−</sup>     | <sup>2</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.047 ± 0.001    | 0.047 ± 0.001    | 0.051 ± 0.006      | 0.084 ± 0.031        | 0.084 ± 0.031        | 0.055 ± 0.016      | 0.059 ± 0.020      |
| <i>ecoli4</i>                         | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>     | <sup>1,2,3</sup>   |
|                                       | 0.315 ± 0.155    | 0.314 ± 0.131    | 0.587 ± 0.224      | 0.816 ± 0.184        | 0.745 ± 0.201        | 0.770 ± 0.202      | 0.710 ± 0.206      |
| <i>led7digit-0-2-4-5-6-7-8-9-vs-1</i> | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <i>all</i>           | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup> | <sup>1,2,3</sup>   |
|                                       | 0.428 ± 0.117    | 0.392 ± 0.090    | 0.510 ± 0.206      | 0.492 ± 0.243        | 0.480 ± 0.238        | 0.489 ± 0.138      | 0.478 ± 0.132      |
| <i>glass5</i>                         | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>2</sup>         | <sup>2</sup>         | <sup>1,2,7</sup>   | <sup>2</sup>       |
|                                       | 0.655 ± 0.213    | 0.633 ± 0.272    | 0.653 ± 0.280      | 0.850 ± 0.292        | 0.850 ± 0.292        | 0.810 ± 0.298      | 0.803 ± 0.297      |
| <i>ecoli-0-3-4-6-vs-5</i>             | <sup>−</sup>     | <sup>−</sup>     | <sup>−</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.274 ± 0.157    | 0.344 ± 0.181    | 0.667 ± 0.232      | 0.742 ± 0.177        | 0.731 ± 0.179        | 0.731 ± 0.196      | 0.723 ± 0.198      |
| <i>yeast-0-5-6-7-9-vs-4</i>           | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.097 ± 0.005    | 0.097 ± 0.004    | 0.191 ± 0.087      | 0.353 ± 0.118        | 0.335 ± 0.105        | 0.293 ± 0.144      | 0.262 ± 0.107      |
| <i>yeast6</i>                         | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <i>all</i>           | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup> | <sup>1,2,3</sup>   |
|                                       | 0.032 ± 0.002    | 0.033 ± 0.003    | 0.056 ± 0.015      | 0.246 ± 0.040        | 0.241 ± 0.041        | 0.122 ± 0.081      | 0.133 ± 0.092      |
| <i>ecoli-0-6-7-vs-5</i>               | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <i>all</i>           | <sup>1,2,3,6,7</sup> | <sup>1,2,3</sup>   | <sup>1,2,3,6</sup> |
|                                       | 0.597 ± 0.279    | 0.395 ± 0.173    | 0.627 ± 0.241      | 0.787 ± 0.187        | 0.758 ± 0.179        | 0.734 ± 0.207      | 0.694 ± 0.208      |
| <i>glass-0-1-6-vs-5</i>               | <sup>2</sup>     | <sup>−</sup>     | <sup>2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup> | <sup>1,2,3</sup>   |
|                                       | 0.756 ± 0.272    | 0.780 ± 0.298    | 0.780 ± 0.298      | 0.827 ± 0.286        | 0.827 ± 0.286        | 0.817 ± 0.289      | 0.817 ± 0.289      |
| <i>ecoli-0-1-3-7-vs-2-6</i>           | <sup>−</sup>     | <sup>−</sup>     | <sup>−</sup>       | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>       | <sup>−</sup>       |
|                                       | 0.353 ± 0.279    | 0.573 ± 0.365    | 0.620 ± 0.380      | 0.673 ± 0.395        | 0.630 ± 0.398        | 0.562 ± 0.372      | 0.560 ± 0.375      |
| <i>yeast-0-2-5-6-vs-3-7-8-9</i>       | <sup>−</sup>     | <sup>1</sup>     | <sup>1</sup>       | <sup>1,2,6,7</sup>   | <sup>1</sup>         | <sup>1</sup>       | <sup>1</sup>       |
|                                       | 0.643 ± 0.115    | 0.607 ± 0.088    | 0.623 ± 0.089      | 0.727 ± 0.106        | 0.691 ± 0.090        | 0.700 ± 0.133      | 0.696 ± 0.098      |
| <i>ecoli-0-1-4-7-vs-5-6</i>           | <sup>2</sup>     | <sup>−</sup>     | <sup>2</sup>       | <i>all</i>           | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.838 ± 0.239    | 0.688 ± 0.243    | 0.761 ± 0.201      | 0.874 ± 0.185        | 0.838 ± 0.192        | 0.821 ± 0.179      | 0.807 ± 0.184      |
| <i>yeast5</i>                         | <sup>2,3</sup>   | <sup>−</sup>     | <sup>2</sup>       | <sup>2,3,6,7</sup>   | <sup>2,3,7</sup>     | <sup>2,3</sup>     | <sup>2,3</sup>     |
|                                       | 0.082 ± 0.011    | 0.073 ± 0.011    | 0.093 ± 0.016      | 0.446 ± 0.068        | 0.446 ± 0.068        | 0.433 ± 0.092      | 0.433 ± 0.094      |
| <i>shuttle-c2-vs-c4</i>               | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.840 ± 0.277    | 0.949 ± 0.174    | 0.975 ± 0.124      | 0.800 ± 0.400        | 0.800 ± 0.400        | 0.743 ± 0.401      | 0.773 ± 0.401      |
| <i>ecoli-0-1-4-7-vs-2-3-5-6</i>       | <sup>−</sup>     | <sup>1,6,7</sup> | <sup>1,6,7</sup>   | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>       | <sup>−</sup>       |
|                                       | 0.778 ± 0.304    | 0.758 ± 0.299    | 0.826 ± 0.222      | 0.927 ± 0.132        | 0.898 ± 0.135        | 0.892 ± 0.139      | 0.839 ± 0.150      |
| <i>yeast-0-3-5-9-vs-7-8</i>           | <sup>−</sup>     | <sup>−</sup>     | <sup>2</sup>       | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup> | <sup>−</sup>       |
|                                       | 0.109 ± 0.003    | 0.110 ± 0.015    | 0.213 ± 0.092      | 0.435 ± 0.174        | 0.400 ± 0.165        | 0.454 ± 0.260      | 0.378 ± 0.207      |
| <i>yeast-1-vs-7</i>                   | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3,5,7</sup> | <sup>1,2,3</sup>     | <sup>1,2,3,7</sup> | <sup>1,2,3</sup>   |
|                                       | 0.080 ± 0.006    | 0.080 ± 0.006    | 0.119 ± 0.037      | 0.159 ± 0.081        | 0.143 ± 0.045        | 0.123 ± 0.070      | 0.109 ± 0.028      |
| <i>yeast-1-2-8-9-vs-7</i>             | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2,7</sup>   | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>     | <sup>1,2</sup>     |
|                                       | 0.034 ± 0.000    | 0.035 ± 0.001    | 0.039 ± 0.004      | 0.102 ± 0.034        | 0.102 ± 0.035        | 0.054 ± 0.032      | 0.058 ± 0.035      |
| <i>ecoli-0-1-4-6-vs-5</i>             | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2,3</sup>   | <sup>1,2,3,6</sup> |
|                                       | 0.624 ± 0.271    | 0.540 ± 0.212    | 0.705 ± 0.226      | 0.838 ± 0.159        | 0.825 ± 0.166        | 0.807 ± 0.162      | 0.808 ± 0.156      |
| <i>glass-0-1-5-vs-2</i>               | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.119 ± 0.052    | 0.104 ± 0.036    | 0.146 ± 0.074      | 0.195 ± 0.067        | 0.195 ± 0.066        | 0.118 ± 0.029      | 0.120 ± 0.030      |
| <i>yeast-2-vs-4</i>                   | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>2</sup>       | <sup>2</sup>       |
|                                       | 0.235 ± 0.270    | 0.147 ± 0.097    | 0.485 ± 0.160      | 0.791 ± 0.154        | 0.720 ± 0.125        | 0.719 ± 0.195      | 0.628 ± 0.127      |
| <i>glass-0-6-vs-5</i>                 | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <i>all</i>           | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup> | <sup>1,2,3</sup>   |
|                                       | 0.853 ± 0.284    | 0.847 ± 0.290    | 0.847 ± 0.290      | 0.880 ± 0.324        | 0.880 ± 0.324        | 0.873 ± 0.325      | 0.873 ± 0.325      |
| <i>glass2</i>                         | <sup>−</sup>     | <sup>−</sup>     | <sup>−</sup>       | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>       | <sup>−</sup>       |
|                                       | 0.106 ± 0.029    | 0.109 ± 0.028    | 0.126 ± 0.052      | 0.209 ± 0.072        | 0.209 ± 0.077        | 0.120 ± 0.034      | 0.122 ± 0.034      |
| <i>yeast-2-vs-8</i>                   | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1</sup>       | <sup>1,2</sup>     |
|                                       | 0.171 ± 0.241    | 0.156 ± 0.215    | 0.520 ± 0.275      | 0.911 ± 0.189        | 0.896 ± 0.199        | 0.853 ± 0.243      | 0.851 ± 0.235      |
| <i>vowel0</i>                         | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.610 ± 0.063    | 0.440 ± 0.041    | 0.488 ± 0.039      | 0.844 ± 0.084        | 0.747 ± 0.069        | 0.733 ± 0.078      | 0.535 ± 0.061      |
| <i>glass-0-4-vs-5</i>                 | <sup>2,3,7</sup> | <sup>−</sup>     | <sup>2</sup>       | <i>all</i>           | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup> | <sup>2,3</sup>     |
|                                       | 0.913 ± 0.195    | 0.910 ± 0.200    | 0.910 ± 0.200      | 0.980 ± 0.139        | 0.980 ± 0.139        | 0.980 ± 0.139      | 0.980 ± 0.139      |
| <i>glass-0-1-4-6-vs-2</i>             | <sup>−</sup>     | <sup>−</sup>     | <sup>−</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.101 ± 0.034    | 0.102 ± 0.034    | 0.123 ± 0.054      | 0.201 ± 0.065        | 0.201 ± 0.064        | 0.115 ± 0.022      | 0.116 ± 0.019      |
| <i>yeast4</i>                         | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>     | <sup>1,2</sup>     |
|                                       | 0.038 ± 0.003    | 0.036 ± 0.002    | 0.041 ± 0.004      | 0.212 ± 0.039        | 0.211 ± 0.037        | 0.087 ± 0.068      | 0.098 ± 0.080      |
| <i>ecoli-0-4-6-vs-5</i>               | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2,3</sup>   | <sup>1,2,3,6</sup> |
|                                       | 0.621 ± 0.241    | 0.595 ± 0.213    | 0.742 ± 0.240      | 0.761 ± 0.178        | 0.754 ± 0.177        | 0.752 ± 0.186      | 0.739 ± 0.178      |
| <i>page-blocks-1-3-vs-4</i>           | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>     | <sup>1,2</sup>     |
|                                       | 0.468 ± 0.156    | 0.439 ± 0.161    | 0.482 ± 0.169      | 0.573 ± 0.183        | 0.586 ± 0.176        | 0.552 ± 0.172      | 0.529 ± 0.160      |
| <i>yeast-0-2-5-7-9-vs-3-6-8</i>       | <sup>2</sup>     | <sup>−</sup>     | <sup>2</sup>       | <sup>1,2,3,7</sup>   | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup> | <sup>1,2,3</sup>   |
|                                       | 0.115 ± 0.007    | 0.114 ± 0.053    | 0.279 ± 0.157      | 0.649 ± 0.163        | 0.594 ± 0.156        | 0.545 ± 0.289      | 0.560 ± 0.177      |
| <i>ecoli-0-1-vs-2-3-5</i>             | <sup>2</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <i>all</i>           | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.433 ± 0.470    | 0.456 ± 0.460    | 0.868 ± 0.260      | 0.930 ± 0.212        | 0.921 ± 0.214        | 0.929 ± 0.130      | 0.904 ± 0.146      |
| <i>ecoli-0-6-7-vs-3-5</i>             | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>     | <sup>1,2</sup>     |
|                                       | 0.219 ± 0.313    | 0.325 ± 0.320    | 0.584 ± 0.318      | 0.757 ± 0.195        | 0.720 ± 0.189        | 0.703 ± 0.216      | 0.659 ± 0.200      |
| <i>ecoli-0-3-4-7-vs-5-6</i>           | <sup>−</sup>     | <sup>−</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup>   | <sup>1,2,3</sup>   | <sup>1,2</sup>     |
|                                       | 0.326 ± 0.160    | 0.405 ± 0.167    | 0.669 ± 0.148      | 0.772 ± 0.141        | 0.771 ± 0.137        | 0.729 ± 0.151      | 0.716 ± 0.145      |
| <i>ecoli-0-2-6-7-vs-3-5</i>           | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3,7</sup>   | <sup>1,2,3,7</sup>   | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.266 ± 0.354    | 0.412 ± 0.359    | 0.575 ± 0.338      | 0.733 ± 0.216        | 0.709 ± 0.216        | 0.652 ± 0.247      | 0.643 ± 0.223      |
| <i>shuttle-c0-vs-c4</i>               | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>     | <sup>1,2</sup>     |
|                                       | 0.976 ± 0.038    | 0.976 ± 0.037    | 0.976 ± 0.037      | 1.000 ± 0.000        | 1.000 ± 0.000        | 1.000 ± 0.000      | 1.000 ± 0.000      |
| <i>ecoli-0-3-4-vs-5</i>               | <sup>−</sup>     | <sup>−</sup>     | <sup>−</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |
|                                       | 0.335 ± 0.202    | 0.410 ± 0.221    | 0.668 ± 0.204      | 0.783 ± 0.170        | 0.776 ± 0.171        | 0.777 ± 0.172      | 0.769 ± 0.173      |
|                                       | <sup>−</sup>     | <sup>1</sup>     | <sup>1,2</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>   | <sup>1,2,3</sup>   |

Table 5: Results for Precision metric

|                  | GNB (1) | OSB (2) | OKNORAU (3) | TBAC (4)   | OTBAC (5) | TBAW (6) | OTBAW (7) |
|------------------|---------|---------|-------------|------------|-----------|----------|-----------|
| <i>Mean rank</i> | 1.902   | 1.683   | 3.366       | 6.573      | 5.866     | 4.512    | 4.098     |
|                  | −       | −       | 1,2         | <i>all</i> | 1,2,3,6,7 | 1,2,3    | 1,2,3     |

Table 6: Results for mean ranks according to Precision metric

| Dataset                               | GNB (1)                               | OSB (2)                               | OKNORAU (3)                           | TBAC (4)                              | OTBAC (5)                             | TBAW (6)                              | OTBAW (7)                             |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <i>glass4</i>                         | 0.210 ± 0.244                         | 0.667 ± 0.280                         | 0.630 ± 0.283                         | 0.587 ± 0.307                         | 0.600 ± 0.288                         | 0.490 ± 0.297                         | 0.607 ± 0.293                         |
| <i>ecoli-0-2-3-4-vs-5</i>             | <sup>1,6</sup><br>0.830 ± 0.153       | <sup>1,6</sup><br>0.835 ± 0.170       | <sup>1,6</sup><br>0.845 ± 0.149       | <sup>1,6</sup><br>0.835 ± 0.155       | <sup>1,6</sup><br>0.835 ± 0.155       | <sup>1</sup><br>0.835 ± 0.155         | <sup>1,6</sup><br>0.840 ± 0.156       |
| <i>glass-0-1-6-vs-2</i>               | <sup>3</sup><br>0.737 ± 0.215         | <sup>3</sup><br>0.777 ± 0.244         | <sup>3</sup><br>0.650 ± 0.267         | <sup>3</sup><br>0.723 ± 0.241         | <sup>3</sup><br>0.740 ± 0.225         | <sup>1,2,3,4,5</sup><br>0.847 ± 0.248 | <sup>1,2,3,4,5</sup><br>0.870 ± 0.208 |
| <i>ecoli-0-1-vs-5</i>                 | <sup>3</sup><br>0.620 ± 0.279         | <sup>3</sup><br>0.740 ± 0.259         | <sup>3</sup><br>0.800 ± 0.180         | <sup>3</sup><br>0.805 ± 0.152         | <sup>3</sup><br>0.800 ± 0.158         | <sup>3</sup><br>0.820 ± 0.150         | <sup>3</sup><br>0.820 ± 0.150         |
| <i>yeast-1-4-5-8-vs-7</i>             | <sup>1</sup><br>1.000 ± 0.000         | <sup>1</sup><br>0.997 ± 0.023         | <sup>1</sup><br>0.910 ± 0.130         | <sup>1</sup><br>0.513 ± 0.193         | <sup>1</sup><br>0.513 ± 0.193         | <sup>1</sup><br>0.847 ± 0.215         | <sup>1</sup><br>0.810 ± 0.242         |
| <i>ecoli4</i>                         | <sup>3,4,5,6,7</sup><br>0.940 ± 0.106 | <sup>3,4,5,6,7</sup><br>0.945 ± 0.103 | <sup>4,5,7</sup><br>0.920 ± 0.116     | <sup>4,5,7</sup><br>0.880 ± 0.160     | <sup>4,5</sup><br>0.890 ± 0.159       | <sup>4,5</sup><br>0.900 ± 0.158       | <sup>4,5</sup><br>0.900 ± 0.158       |
| <i>led7digit-0-2-4-5-6-7-8-9-vs-1</i> | <sup>4,5</sup><br>0.816 ± 0.137       | <sup>4,5,6,7</sup><br>0.867 ± 0.116   | <sup>4,5</sup><br>0.853 ± 0.135       | <sup>4,5</sup><br>0.342 ± 0.177       | <sup>4,5</sup><br>0.345 ± 0.179       | <sup>1,4,5</sup><br>0.862 ± 0.174     | <sup>4,5</sup><br>0.836 ± 0.216       |
| <i>glass5</i>                         | <sup>4,5</sup><br>0.920 ± 0.208       | <sup>1,4,5</sup><br>0.790 ± 0.317     | <sup>4,5</sup><br>0.790 ± 0.317       | <sup>4,5</sup><br>0.810 ± 0.314       | <sup>4,5</sup><br>0.810 ± 0.314       | <sup>1,4,5</sup><br>0.810 ± 0.314     | <sup>4,5</sup><br>0.810 ± 0.314       |
| <i>ecoli-0-3-4-6-vs-5</i>             | <sup>2,3</sup><br>0.840 ± 0.171       | <sup>2,3</sup><br>0.860 ± 0.159       | <sup>2,3</sup><br>0.850 ± 0.173       | <sup>2,3</sup><br>0.830 ± 0.169       | <sup>2,3</sup><br>0.835 ± 0.170       | <sup>2,3</sup><br>0.825 ± 0.167       | <sup>2,3</sup><br>0.830 ± 0.176       |
| <i>yeast-0-5-6-7-9-vs-4</i>           | <sup>3,4,5,6,7</sup><br>0.969 ± 0.045 | <sup>3,4,5,6,7</sup><br>0.977 ± 0.041 | <sup>3,4,5,6,7</sup><br>0.914 ± 0.092 | <sup>3,4,5,6,7</sup><br>0.752 ± 0.113 | <sup>3,4,5,6,7</sup><br>0.787 ± 0.109 | <sup>3,4,5,6,7</sup><br>0.767 ± 0.192 | <sup>3,4,5,6,7</sup><br>0.821 ± 0.147 |
| <i>yeast6</i>                         | <sup>3,4,5,6,7</sup><br>0.986 ± 0.042 | <sup>3,4,5,6,7</sup><br>0.991 ± 0.033 | <sup>4,5,6,7</sup><br>0.943 ± 0.080   | <sup>4,5,6,7</sup><br>0.837 ± 0.117   | <sup>4,5,6,7</sup><br>0.837 ± 0.117   | <sup>4,5,6,7</sup><br>0.903 ± 0.092   | <sup>4,5,6,7</sup><br>0.894 ± 0.102   |
| <i>ecoli-0-6-7-vs-5</i>               | <sup>3,4,5,6,7</sup><br>0.720 ± 0.210 | <sup>3,4,5,6,7</sup><br>0.835 ± 0.177 | <sup>4,5,6,7</sup><br>0.825 ± 0.175   | <sup>4,5,6,7</sup><br>0.765 ± 0.196   | <sup>4,5,6,7</sup><br>0.775 ± 0.188   | <sup>4,5,6,7</sup><br>0.780 ± 0.191   | <sup>4,5,6,7</sup><br>0.780 ± 0.184   |
| <i>glass-0-1-6-vs-5</i>               | <sup>1,4,5,6,7</sup><br>0.930 ± 0.223 | <sup>1,4,5,6,7</sup><br>0.790 ± 0.301 | <sup>1,4,5,7</sup><br>0.790 ± 0.301   | <sup>1,4,5,7</sup><br>0.780 ± 0.302   | <sup>1,4,5,7</sup><br>0.780 ± 0.302   | <sup>1,4,5,7</sup><br>0.780 ± 0.302   | <sup>1,4,5,7</sup><br>0.780 ± 0.302   |
| <i>ecoli-0-1-3-7-vs-2-6</i>           | <sup>all</sup><br>0.700 ± 0.400       | <sup>all</sup><br>0.700 ± 0.400       | <sup>all</sup><br>0.700 ± 0.400       | <sup>all</sup><br>0.700 ± 0.400       | <sup>all</sup><br>0.700 ± 0.400       | <sup>all</sup><br>0.700 ± 0.400       | <sup>all</sup><br>0.700 ± 0.400       |
| <i>yeast-0-2-5-6-vs-3-7-8-9</i>       | <sup>6</sup><br>0.372 ± 0.096         | <sup>6</sup><br>0.586 ± 0.108         | <sup>6</sup><br>0.592 ± 0.094         | <sup>6</sup><br>0.448 ± 0.109         | <sup>6</sup><br>0.553 ± 0.116         | <sup>6</sup><br>0.327 ± 0.110         | <sup>6</sup><br>0.467 ± 0.153         |
| <i>ecoli-0-1-4-7-vs-5-6</i>           | <sup>1,4,5,6,7</sup><br>0.492 ± 0.259 | <sup>1,4,5,6,7</sup><br>0.656 ± 0.280 | <sup>1,4,5,6,7</sup><br>0.756 ± 0.227 | <sup>1,4,5,6,7</sup><br>0.716 ± 0.212 | <sup>1,4,5,6,7</sup><br>0.756 ± 0.208 | <sup>1,4,5,6,7</sup><br>0.712 ± 0.184 | <sup>1,4,5,6,7</sup><br>0.784 ± 0.159 |
| <i>yeast5</i>                         | <sup>1,2</sup><br>0.996 ± 0.031       | <sup>1,2</sup><br>0.996 ± 0.031       | <sup>1,2,4</sup><br>0.996 ± 0.031     | <sup>1,2</sup><br>0.984 ± 0.044       | <sup>1,2</sup><br>0.984 ± 0.044       | <sup>1,2</sup><br>0.984 ± 0.044       | <sup>1,2,4,6</sup><br>0.984 ± 0.044   |
| <i>shuttle-c2-vs-c4</i>               | <sup>1</sup><br>1.000 ± 0.000         | <sup>1</sup><br>0.990 ± 0.069         | <sup>1</sup><br>0.980 ± 0.097         | <sup>1</sup><br>0.780 ± 0.401         | <sup>1</sup><br>0.780 ± 0.401         | <sup>1</sup><br>0.780 ± 0.401         | <sup>1</sup><br>0.780 ± 0.401         |
| <i>ecoli-0-1-4-7-vs-2-3-5-6</i>       | <sup>4,5,6,7</sup><br>0.308 ± 0.178   | <sup>4,5,6,7</sup><br>0.335 ± 0.242   | <sup>4,5,6,7</sup><br>0.560 ± 0.279   | <sup>4,5,6,7</sup><br>0.619 ± 0.226   | <sup>4,5,6,7</sup><br>0.712 ± 0.203   | <sup>4,5,6,7</sup><br>0.619 ± 0.205   | <sup>4,5,6,7</sup><br>0.744 ± 0.190   |
| <i>yeast-0-3-5-9-vs-7-8</i>           | <sup>1,2</sup><br>0.992 ± 0.033       | <sup>1,2</sup><br>0.978 ± 0.070       | <sup>1,2</sup><br>0.702 ± 0.210       | <sup>1,2</sup><br>0.428 ± 0.228       | <sup>1,2,3,4,6</sup><br>0.490 ± 0.208 | <sup>1,2</sup><br>0.428 ± 0.262       | <sup>1,2,3,4,6</sup><br>0.488 ± 0.237 |
| <i>yeast-1-vs-7</i>                   | <sup>3,4,5,6,7</sup><br>0.973 ± 0.077 | <sup>3,4,5,6,7</sup><br>0.960 ± 0.091 | <sup>4,5,6,7</sup><br>0.800 ± 0.208   | <sup>4,5,6,7</sup><br>0.577 ± 0.208   | <sup>4,6</sup><br>0.590 ± 0.213       | <sup>4,6</sup><br>0.783 ± 0.189       | <sup>4,6</sup><br>0.810 ± 0.194       |
| <i>yeast-1-2-8-9-vs-7</i>             | <sup>3,4,5,6,7</sup><br>1.000 ± 0.000 | <sup>3,4,5,6,7</sup><br>1.000 ± 0.000 | <sup>4,5</sup><br>0.937 ± 0.110       | <sup>4,5</sup><br>0.523 ± 0.173       | <sup>4,5</sup><br>0.527 ± 0.177       | <sup>4,5</sup><br>0.810 ± 0.249       | <sup>4,5</sup><br>0.777 ± 0.257       |
| <i>ecoli-0-1-4-6-vs-5</i>             | <sup>3,4,5,6,7</sup><br>0.750 ± 0.173 | <sup>3,4,5,6,7</sup><br>0.840 ± 0.164 | <sup>4,5,6,7</sup><br>0.830 ± 0.169   | <sup>4,5,6,7</sup><br>0.820 ± 0.158   | <sup>4,5,6,7</sup><br>0.820 ± 0.158   | <sup>4,5,6,7</sup><br>0.815 ± 0.164   | <sup>4,5,6,7</sup><br>0.820 ± 0.158   |
| <i>glass-0-1-5-vs-2</i>               | <sup>1</sup><br>0.675 ± 0.253         | <sup>1</sup><br>0.730 ± 0.249         | <sup>1</sup><br>0.643 ± 0.279         | <sup>1</sup><br>0.732 ± 0.242         | <sup>1</sup><br>0.738 ± 0.236         | <sup>1</sup><br>0.865 ± 0.184         | <sup>1</sup><br>0.888 ± 0.181         |
| <i>yeast-2-vs-4</i>                   | <sup>1,3</sup><br>0.921 ± 0.100       | <sup>1,3</sup><br>0.942 ± 0.077       | <sup>1,3</sup><br>0.834 ± 0.113       | <sup>3</sup><br>0.753 ± 0.133         | <sup>3</sup><br>0.768 ± 0.126         | <sup>1,2,3,4,5</sup><br>0.774 ± 0.125 | <sup>1,2,3,4,5</sup><br>0.784 ± 0.121 |
| <i>glass-0-6-vs-5</i>                 | <sup>3,4,5,6,7</sup><br>0.900 ± 0.282 | <sup>3,4,5,6,7</sup><br>0.830 ± 0.310 | <sup>4,5,6,7</sup><br>0.830 ± 0.310   | <sup>4,5,6,7</sup><br>0.720 ± 0.348   | <sup>4,5,6,7</sup><br>0.720 ± 0.348   | <sup>4,5,6,7</sup><br>0.720 ± 0.348   | <sup>4,5,6,7</sup><br>0.720 ± 0.348   |
| <i>glass2</i>                         | <sup>4,5,6,7</sup><br>0.773 ± 0.200   | <sup>4,5,6,7</sup><br>0.830 ± 0.187   | <sup>4,5,6,7</sup><br>0.725 ± 0.251   | <sup>4,5,6,7</sup><br>0.727 ± 0.201   | <sup>4,5,6,7</sup><br>0.732 ± 0.198   | <sup>4,5,6,7</sup><br>0.887 ± 0.146   | <sup>4,5,6,7</sup><br>0.917 ± 0.135   |
| <i>yeast-2-vs-8</i>                   | <sup>1,3,4,5</sup><br>0.890 ± 0.218   | <sup>1,3,4,5</sup><br>0.875 ± 0.213   | <sup>1,3,4,5</sup><br>0.600 ± 0.223   | <sup>1,3,4,5</sup><br>0.555 ± 0.219   | <sup>1,3,4,5</sup><br>0.555 ± 0.219   | <sup>1,2,3,4,5</sup><br>0.575 ± 0.207 | <sup>1,2,3,4,5</sup><br>0.575 ± 0.219 |
| <i>vowel0</i>                         | <sup>3,4,5,6,7</sup><br>0.889 ± 0.081 | <sup>3,4,5,6,7</sup><br>0.929 ± 0.054 | <sup>4,5</sup><br>0.943 ± 0.056       | <sup>4,5</sup><br>0.781 ± 0.123       | <sup>4,5</sup><br>0.873 ± 0.101       | <sup>4,5</sup><br>0.786 ± 0.108       | <sup>4,5</sup><br>0.871 ± 0.090       |
| <i>glass-0-4-vs-5</i>                 | <sup>4,6</sup><br>0.960 ± 0.168       | <sup>1,4,5,6,7</sup><br>0.850 ± 0.250 | <sup>all</sup><br>0.860 ± 0.245       | <sup>all</sup><br>0.870 ± 0.241       | <sup>4,6</sup><br>0.880 ± 0.235       | <sup>4,6</sup><br>0.870 ± 0.241       | <sup>4,6</sup><br>0.880 ± 0.235       |
| <i>glass-0-1-4-6-vs-2</i>             | <sup>2,3,4,6</sup><br>0.745 ± 0.267   | <sup>2,3,4,6</sup><br>0.772 ± 0.279   | <sup>2,3,4,6</sup><br>0.703 ± 0.282   | <sup>2,3,4,6</sup><br>0.718 ± 0.194   | <sup>2,3,4,6</sup><br>0.735 ± 0.199   | <sup>2,3,4,6</sup><br>0.877 ± 0.188   | <sup>2,3,4,6</sup><br>0.893 ± 0.158   |
| <i>yeast4</i>                         | <sup>3</sup><br>0.961 ± 0.057         | <sup>3</sup><br>0.973 ± 0.047         | <sup>3</sup><br>0.953 ± 0.062         | <sup>3</sup><br>0.714 ± 0.137         | <sup>3</sup><br>0.722 ± 0.132         | <sup>1,2,3,4,5</sup><br>0.884 ± 0.160 | <sup>1,2,3,4,5</sup><br>0.886 ± 0.164 |
| <i>ecoli-0-4-6-vs-5</i>               | <sup>4,5,6,7</sup><br>0.780 ± 0.184   | <sup>4,5,6,7</sup><br>0.850 ± 0.158   | <sup>4,5,6,7</sup><br>0.845 ± 0.165   | <sup>4,5,6,7</sup><br>0.835 ± 0.155   | <sup>4,5,6,7</sup><br>0.835 ± 0.155   | <sup>4,5,6,7</sup><br>0.840 ± 0.156   | <sup>4,5,6,7</sup><br>0.840 ± 0.156   |
| <i>page-blocks-1-3-vs-4</i>           | <sup>1</sup><br>0.576 ± 0.190         | <sup>1</sup><br>0.597 ± 0.202         | <sup>1</sup><br>0.690 ± 0.254         | <sup>1</sup><br>0.527 ± 0.185         | <sup>1</sup><br>0.609 ± 0.209         | <sup>1</sup><br>0.523 ± 0.180         | <sup>1</sup><br>0.540 ± 0.180         |
| <i>yeast-0-2-5-7-9-vs-3-6-8</i>       | <sup>4,6,7</sup><br>0.986 ± 0.031     | <sup>4,6,7</sup><br>0.987 ± 0.027     | <sup>all</sup><br>0.932 ± 0.082       | <sup>all</sup><br>0.850 ± 0.082       | <sup>1,4,6,7</sup><br>0.863 ± 0.081   | <sup>1,4,6,7</sup><br>0.856 ± 0.090   | <sup>1,4,6,7</sup><br>0.864 ± 0.081   |
| <i>ecoli-0-1-vs-2-3-5</i>             | <sup>3,4,5,6,7</sup><br>0.218 ± 0.314 | <sup>3,4,5,6,7</sup><br>0.264 ± 0.341 | <sup>4,5,6,7</sup><br>0.653 ± 0.282   | <sup>4,5,6,7</sup><br>0.653 ± 0.229   | <sup>4</sup><br>0.675 ± 0.229         | <sup>4</sup><br>0.700 ± 0.198         | <sup>4</sup><br>0.747 ± 0.168         |
| <i>ecoli-0-6-7-vs-3-5</i>             | <sup>1,2</sup><br>0.199 ± 0.320       | <sup>1,2</sup><br>0.292 ± 0.360       | <sup>1,2</sup><br>0.415 ± 0.305       | <sup>1,2</sup><br>0.625 ± 0.183       | <sup>1,2</sup><br>0.688 ± 0.209       | <sup>1,2,4</sup><br>0.647 ± 0.185     | <sup>all</sup><br>0.702 ± 0.183       |
| <i>ecoli-0-3-4-7-vs-5-6</i>           | <sup>1,2,3</sup><br>0.792 ± 0.236     | <sup>1,2,3</sup><br>0.836 ± 0.198     | <sup>1,2,3</sup><br>0.840 ± 0.164     | <sup>1,2,3</sup><br>0.776 ± 0.153     | <sup>1,2,3,4</sup><br>0.800 ± 0.154   | <sup>1,2,3</sup><br>0.804 ± 0.176     | <sup>1,2,3,4,6</sup><br>0.824 ± 0.158 |
| <i>ecoli-0-2-6-7-vs-3-5</i>           | <sup>4,5</sup><br>0.199 ± 0.290       | <sup>4,5</sup><br>0.304 ± 0.321       | <sup>4,5</sup><br>0.404 ± 0.291       | <sup>4,5</sup><br>0.655 ± 0.196       | <sup>4,5</sup><br>0.678 ± 0.202       | <sup>4,5</sup><br>0.641 ± 0.174       | <sup>4</sup><br>0.707 ± 0.192         |
| <i>shuttle-c0-vs-c4</i>               | <sup>1,2,3</sup><br>0.982 ± 0.025     | <sup>1,2,3</sup><br>0.980 ± 0.028     | <sup>1,2,3</sup><br>0.980 ± 0.028     | <sup>1,2,3</sup><br>0.988 ± 0.018     | <sup>1,2,3</sup><br>0.988 ± 0.018     | <sup>1,2,3</sup><br>0.988 ± 0.018     | <sup>1,2,3,4,6</sup><br>0.988 ± 0.018 |
| <i>ecoli-0-3-4-vs-5</i>               | <sup>2,3</sup><br>0.845 ± 0.186       | <sup>2,3</sup><br>0.845 ± 0.192       | <sup>2,3</sup><br>0.840 ± 0.210       | <sup>2,3</sup><br>0.845 ± 0.205       | <sup>2,3</sup><br>0.845 ± 0.205       | <sup>2,3</sup><br>0.850 ± 0.200       | <sup>2,3</sup><br>0.850 ± 0.200       |

Table 7: Results for Recall metric

|                  | GNB (1) | OSB (2)   | OKNORAU (3) | TBAC (4) | OTBAC (5) | TBAW (6) | OTBAW (7) |
|------------------|---------|-----------|-------------|----------|-----------|----------|-----------|
| <i>Mean rank</i> | 4.073   | 5.012     | 4.439       | 2.585    | 3.549     | 3.683    | 4.659     |
|                  | 4       | 1,3,4,5,6 | 4           | —        | 4         | 4        | 4,5,6     |

Table 8: Results for mean ranks according to Recall metric

| Dataset                               | GNB (1)            | OSB (2)            | OKNORAU (3)          | TBAC (4)             | OTBAC (5)            | TBAW (6)             | OTBAW (7)            |
|---------------------------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <i>glass4</i>                         | 0.572 ± 0.129      | 0.788 ± 0.148      | 0.788 ± 0.140        | 0.767 ± 0.155        | 0.774 ± 0.147        | 0.695 ± 0.156        | 0.760 ± 0.150        |
| <i>ecoli-0-2-3-4-vs-5</i>             | <sup>−</sup>       | <sup>1,6</sup>     | <sup>1,2,6</sup>     | <sup>1,6</sup>       | <sup>1,6,7</sup>     | <sup>1</sup>         | <sup>1,6</sup>       |
|                                       | 0.780 ± 0.098      | 0.812 ± 0.100      | 0.891 ± 0.082        | 0.904 ± 0.078        | 0.903 ± 0.079        | 0.901 ± 0.078        | 0.902 ± 0.080        |
| <i>glass-0-1-6-vs-2</i>               | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup>   | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     |
|                                       | 0.565 ± 0.111      | 0.571 ± 0.115      | 0.598 ± 0.147        | 0.710 ± 0.125        | 0.717 ± 0.116        | 0.605 ± 0.126        | 0.612 ± 0.104        |
| <i>ecoli-0-1-vs-5</i>                 | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.800 ± 0.143      | 0.859 ± 0.133      | 0.895 ± 0.090        | 0.900 ± 0.075        | 0.898 ± 0.079        | 0.907 ± 0.075        | 0.908 ± 0.074        |
| <i>yeast-1-4-5-8-vs-7</i>             | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1</sup>         | <sup>1,2</sup>       | <sup>1,2,3</sup>     |
|                                       | 0.544 ± 0.012      | 0.546 ± 0.014      | 0.572 ± 0.055        | 0.629 ± 0.097        | 0.629 ± 0.098        | 0.583 ± 0.064        | 0.589 ± 0.071        |
| <i>ecoli4</i>                         | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.886 ± 0.083      | 0.896 ± 0.064      | 0.931 ± 0.072        | 0.932 ± 0.082        | 0.933 ± 0.082        | 0.939 ± 0.080        | 0.935 ± 0.081        |
| <i>led7digit-0-2-4-5-6-7-8-9-vs-1</i> | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3,4</sup>   | <sup>1,2,3,5,7</sup> | <sup>1,2,3,4</sup>   |
|                                       | 0.853 ± 0.073      | 0.868 ± 0.062      | 0.878 ± 0.067        | 0.653 ± 0.089        | 0.654 ± 0.091        | 0.884 ± 0.080        | 0.870 ± 0.096        |
| <i>glass5</i>                         | <sup>4,5</sup>     | <sup>4,5</sup>     | <sup>1,2,4,5</sup>   | <sup>−</sup>         | <sup>−</sup>         | <sup>1,2,4,5</sup>   | <sup>1,2,4,5</sup>   |
|                                       | 0.948 ± 0.103      | 0.885 ± 0.156      | 0.886 ± 0.156        | 0.903 ± 0.155        | 0.903 ± 0.155        | 0.902 ± 0.156        | 0.901 ± 0.155        |
| <i>ecoli-0-3-4-6-vs-5</i>             | <sup>−</sup>       | <sup>−</sup>       | <sup>−</sup>         | <sup>2,3</sup>       | <sup>2,3</sup>       | <sup>2,3</sup>       | <sup>2,3</sup>       |
|                                       | 0.755 ± 0.102      | 0.809 ± 0.106      | 0.894 ± 0.106        | 0.897 ± 0.088        | 0.899 ± 0.089        | 0.893 ± 0.091        | 0.895 ± 0.096        |
| <i>yeast-0-5-6-7-9-vs-4</i>           | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.501 ± 0.026      | 0.500 ± 0.022      | 0.675 ± 0.148        | 0.791 ± 0.045        | 0.801 ± 0.053        | 0.720 ± 0.090        | 0.733 ± 0.108        |
| <i>yeast6</i>                         | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.636 ± 0.023      | 0.645 ± 0.029      | 0.763 ± 0.044        | 0.887 ± 0.056        | 0.886 ± 0.056        | 0.837 ± 0.054        | 0.833 ± 0.068        |
| <i>ecoli-0-6-7-vs-5</i>               | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <i>all</i>           | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup>   | <sup>1,2,3</sup>     |
|                                       | 0.813 ± 0.124      | 0.835 ± 0.107      | 0.877 ± 0.103        | 0.870 ± 0.100        | 0.873 ± 0.096        | 0.871 ± 0.098        | 0.868 ± 0.098        |
| <i>glass-0-1-6-vs-5</i>               | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,7</sup>     | <sup>1,2,7</sup>     | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.956 ± 0.109      | 0.889 ± 0.150      | 0.889 ± 0.150        | 0.886 ± 0.150        | 0.886 ± 0.150        | 0.886 ± 0.151        | 0.886 ± 0.151        |
| <i>ecoli-0-1-3-7-vs-2-6</i>           | <sup>−</sup>       | <sup>−</sup>       | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         |
|                                       | 0.831 ± 0.193      | 0.844 ± 0.200      | 0.845 ± 0.200        | 0.844 ± 0.203        | 0.841 ± 0.204        | 0.841 ± 0.202        | 0.839 ± 0.202        |
| <i>yeast-0-2-5-6-vs-3-7-8-9</i>       | <sup>−</sup>       | <sup>1,7</sup>     | <sup>1,6,7</sup>     | <sup>1,5,6,7</sup>   | <sup>1</sup>         | <sup>1</sup>         | <sup>1</sup>         |
|                                       | 0.675 ± 0.048      | 0.772 ± 0.053      | 0.776 ± 0.047        | 0.715 ± 0.055        | 0.763 ± 0.057        | 0.656 ± 0.055        | 0.722 ± 0.073        |
| <i>ecoli-0-1-4-7-vs-5-6</i>           | <sup>6</sup>       | <sup>1,4,6,7</sup> | <sup>1,2,4,6,7</sup> | <sup>1,6</sup>       | <sup>1,4,6,7</sup>   | <sup>−</sup>         | <sup>1,6</sup>       |
|                                       | 0.742 ± 0.131      | 0.816 ± 0.138      | 0.867 ± 0.114        | 0.854 ± 0.106        | 0.872 ± 0.104        | 0.849 ± 0.093        | 0.882 ± 0.081        |
| <i>yeast5</i>                         | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2,6</sup>     | <sup>1,2</sup>       | <sup>1,2,6</sup>     |
|                                       | 0.825 ± 0.024      | 0.800 ± 0.031      | 0.845 ± 0.027        | 0.973 ± 0.023        | 0.973 ± 0.023        | 0.970 ± 0.033        | 0.969 ± 0.035        |
| <i>shuttle-c2-vs-c4</i>               | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     |
|                                       | 0.988 ± 0.022      | 0.991 ± 0.037      | 0.988 ± 0.049        | 0.890 ± 0.200        | 0.890 ± 0.200        | 0.887 ± 0.201        | 0.888 ± 0.201        |
| <i>ecoli-0-1-4-7-vs-2-3-5-6</i>       | <sup>6</sup>       | <sup>4,5,6,7</sup> | <sup>4,5,6,7</sup>   | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         |
|                                       | 0.651 ± 0.090      | 0.663 ± 0.119      | 0.776 ± 0.140        | 0.807 ± 0.113        | 0.852 ± 0.102        | 0.805 ± 0.102        | 0.865 ± 0.094        |
| <i>yeast-0-3-5-9-vs-7-8</i>           | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3,4,6</sup> | <sup>1,2</sup>       | <sup>1,2,3,4,6</sup> |
|                                       | 0.550 ± 0.018      | 0.547 ± 0.032      | 0.673 ± 0.087        | 0.670 ± 0.079        | 0.691 ± 0.074        | 0.630 ± 0.054        | 0.650 ± 0.070        |
| <i>yeast-1-vs-7</i>                   | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2,6,7</sup>   | <sup>1,2,6</sup>     | <sup>1,2,6,7</sup>   | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.594 ± 0.037      | 0.593 ± 0.039      | 0.683 ± 0.101        | 0.671 ± 0.102        | 0.671 ± 0.102        | 0.663 ± 0.084        | 0.666 ± 0.085        |
| <i>yeast-1-2-8-9-vs-7</i>             | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.540 ± 0.011      | 0.543 ± 0.013      | 0.585 ± 0.053        | 0.685 ± 0.087        | 0.687 ± 0.089        | 0.612 ± 0.068        | 0.615 ± 0.074        |
| <i>ecoli-0-1-4-6-vs-5</i>             | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2,3</sup>     | <sup>1,2,6</sup>     |
|                                       | 0.847 ± 0.098      | 0.883 ± 0.092      | 0.897 ± 0.088        | 0.902 ± 0.076        | 0.901 ± 0.076        | 0.898 ± 0.078        | 0.901 ± 0.076        |
| <i>glass-0-1-5-vs-2</i>               | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.555 ± 0.134      | 0.524 ± 0.112      | 0.607 ± 0.150        | 0.702 ± 0.116        | 0.703 ± 0.112        | 0.577 ± 0.079        | 0.585 ± 0.082        |
| <i>yeast-2-vs-4</i>                   | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>2</sup>         | <sup>2</sup>         |
|                                       | 0.608 ± 0.128      | 0.583 ± 0.120      | 0.835 ± 0.116        | 0.863 ± 0.067        | 0.866 ± 0.063        | 0.861 ± 0.070        | 0.864 ± 0.062        |
| <i>glass-0-6-vs-5</i>                 | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2,7</sup>     | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.945 ± 0.140      | 0.910 ± 0.154      | 0.910 ± 0.154        | 0.860 ± 0.174        | 0.860 ± 0.174        | 0.860 ± 0.173        | 0.860 ± 0.173        |
| <i>glass2</i>                         | <sup>4,5,6,7</sup> | <sup>−</sup>       | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         | <sup>−</sup>         |
|                                       | 0.607 ± 0.098      | 0.623 ± 0.093      | 0.635 ± 0.135        | 0.738 ± 0.108        | 0.739 ± 0.109        | 0.655 ± 0.086        | 0.667 ± 0.087        |
| <i>yeast-2-vs-8</i>                   | <sup>−</sup>       | <sup>−</sup>       | <sup>1</sup>         | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1</sup>         | <sup>1,2</sup>       |
|                                       | 0.637 ± 0.090      | 0.658 ± 0.088      | 0.779 ± 0.105        | 0.776 ± 0.111        | 0.775 ± 0.111        | 0.777 ± 0.110        | 0.780 ± 0.112        |
| <i>vowel0</i>                         | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2,3</sup>     |
|                                       | 0.915 ± 0.037      | 0.904 ± 0.026      | 0.921 ± 0.025        | 0.883 ± 0.060        | 0.921 ± 0.050        | 0.878 ± 0.054        | 0.897 ± 0.042        |
| <i>glass-0-4-vs-5</i>                 | <sup>2,4,6,7</sup> | <sup>4,6</sup>     | <sup>2,4,6,7</sup>   | <sup>−</sup>         | <sup>1,2,4,6,7</sup> | <sup>−</sup>         | <sup>6</sup>         |
|                                       | 0.975 ± 0.083      | 0.920 ± 0.123      | 0.925 ± 0.121        | 0.935 ± 0.120        | 0.940 ± 0.117        | 0.935 ± 0.120        | 0.940 ± 0.117        |
| <i>glass-0-1-4-6-vs-2</i>             | <sup>2,3</sup>     | <sup>−</sup>       | <sup>−</sup>         | <sup>2</sup>         | <sup>2,3</sup>       | <sup>2</sup>         | <sup>2,3</sup>       |
|                                       | 0.579 ± 0.128      | 0.585 ± 0.132      | 0.620 ± 0.150        | 0.724 ± 0.105        | 0.730 ± 0.106        | 0.636 ± 0.100        | 0.641 ± 0.084        |
| <i>yeast4</i>                         | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.551 ± 0.039      | 0.526 ± 0.025      | 0.577 ± 0.046        | 0.809 ± 0.066        | 0.812 ± 0.064        | 0.672 ± 0.078        | 0.662 ± 0.101        |
| <i>ecoli-0-4-6-vs-5</i>               | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6,7</sup> | <sup>1,2,3,7</sup>   | <sup>1,2,3</sup>     |
|                                       | 0.851 ± 0.114      | 0.882 ± 0.103      | 0.899 ± 0.095        | 0.901 ± 0.082        | 0.900 ± 0.082        | 0.902 ± 0.083        | 0.901 ± 0.084        |
| <i>page-blocks-1-3-vs-4</i>           | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.765 ± 0.095      | 0.772 ± 0.100      | 0.820 ± 0.128        | 0.750 ± 0.094        | 0.790 ± 0.105        | 0.747 ± 0.091        | 0.754 ± 0.090        |
| <i>yeast-0-2-5-7-9-vs-3-6-8</i>       | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2,4,6,7</sup> | <sup>−</sup>         | <sup>1,2,4,6,7</sup> | <sup>−</sup>         | <sup>4</sup>         |
|                                       | 0.576 ± 0.028      | 0.547 ± 0.054      | 0.747 ± 0.135        | 0.894 ± 0.033        | 0.892 ± 0.034        | 0.841 ± 0.074        | 0.876 ± 0.064        |
| <i>ecoli-0-1-vs-2-3-5</i>             | <sup>2</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6,7</sup> | <sup>1,2,3,6</sup>   | <sup>1,2,3</sup>     | <sup>1,2,3,6</sup>   |
|                                       | 0.607 ± 0.157      | 0.628 ± 0.168      | 0.823 ± 0.142        | 0.825 ± 0.114        | 0.836 ± 0.114        | 0.847 ± 0.099        | 0.869 ± 0.085        |
| <i>ecoli-0-6-7-vs-3-5</i>             | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2,3,4,5</sup> |
|                                       | 0.587 ± 0.158      | 0.631 ± 0.173      | 0.694 ± 0.147        | 0.800 ± 0.094        | 0.828 ± 0.106        | 0.804 ± 0.092        | 0.827 ± 0.095        |
| <i>ecoli-0-3-4-7-vs-5-6</i>           | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     |
|                                       | 0.778 ± 0.080      | 0.834 ± 0.089      | 0.894 ± 0.081        | 0.874 ± 0.078        | 0.886 ± 0.079        | 0.884 ± 0.091        | 0.892 ± 0.081        |
| <i>ecoli-0-2-6-7-vs-3-5</i>           | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       | <sup>1,2</sup>       |
|                                       | 0.586 ± 0.145      | 0.635 ± 0.157      | 0.687 ± 0.143        | 0.813 ± 0.102        | 0.821 ± 0.105        | 0.793 ± 0.091        | 0.824 ± 0.105        |
| <i>shuttle-c0-vs-c4</i>               | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3,6</sup>   | <sup>1,2,3,6</sup>   | <sup>1,2,3</sup>     | <sup>1,2,3,5,6</sup> |
|                                       | 0.990 ± 0.012      | 0.989 ± 0.014      | 0.989 ± 0.014        | 0.994 ± 0.009        | 0.994 ± 0.009        | 0.994 ± 0.009        | 0.994 ± 0.009        |
| <i>ecoli-0-3-4-vs-5</i>               | <sup>−</sup>       | <sup>−</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     |
|                                       | 0.788 ± 0.105      | 0.826 ± 0.111      | 0.893 ± 0.110        | 0.908 ± 0.103        | 0.907 ± 0.104        | 0.910 ± 0.102        | 0.909 ± 0.102        |
|                                       | <sup>−</sup>       | <sup>1</sup>       | <sup>1,2</sup>       | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     | <sup>1,2,3</sup>     |

Table 9: Results for AUC metric

|                  | GNB (1) | OSB (2) | OKNORAU (3) | TBAC (4) | OTBAC (5)  | TBAW (6) | OTBAW (7) |
|------------------|---------|---------|-------------|----------|------------|----------|-----------|
| <i>Mean rank</i> | 2.195   | 2.476   | 4.183       | 4.890    | 5.573      | 3.951    | 4.732     |
|                  | −       | −       | 1,2         | 1,2,6    | <i>all</i> | 1,2      | 1,2,6     |

Table 10: Results for mean ranks according to AUC metric

| Dataset                               | GNB (1)                               | OSB (2)                               | OKNORAU (3)                         | TBAC (4)                              | OTBAC (5)                             | TBAW (6)                            | OTBAW (7)                             |
|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|
| <i>glass4</i>                         | 0.304 ± 0.325                         | 0.749 ± 0.215                         | 0.741 ± 0.214                       | 0.689 ± 0.286                         | 0.706 ± 0.267                         | 0.591 ± 0.303                       | 0.700 ± 0.249                         |
| <i>ecoli-0-2-3-4-vs-5</i>             | <sup>1,3,6</sup><br>0.768 ± 0.100     | <sup>1,3,6</sup><br>0.800 ± 0.109     | <sup>1,6</sup><br>0.886 ± 0.087     | <sup>1,6</sup><br>0.897 ± 0.086       | <sup>1,6,7</sup><br>0.896 ± 0.087     | <sup>1</sup><br>0.894 ± 0.087       | <sup>1,6</sup><br>0.896 ± 0.088       |
| <i>glass-0-1-6-vs-2</i>               | <sup>1</sup><br>0.524 ± 0.114         | <sup>1</sup><br>0.511 ± 0.129         | <sup>1,2</sup><br>0.563 ± 0.198     | <sup>1,2,3,6,7</sup><br>0.693 ± 0.153 | <sup>1,2,3,7</sup><br>0.705 ± 0.122   | <sup>1,2,3</sup><br>0.539 ± 0.123   | <sup>1,2,3</sup><br>0.543 ± 0.092     |
| <i>ecoli-0-1-vs-5</i>                 | <sup>1,2</sup><br>0.725 ± 0.286       | <sup>1,2</sup><br>0.824 ± 0.215       | <sup>1,2</sup><br>0.883 ± 0.108     | <sup>1,2,3,6,7</sup><br>0.891 ± 0.086 | <sup>1,2,3,6,7</sup><br>0.888 ± 0.090 | <sup>2</sup><br>0.899 ± 0.084       | <sup>2</sup><br>0.899 ± 0.084         |
| <i>yeast-1-4-5-8-vs-7</i>             | <sup>1</sup><br>0.293 ± 0.044         | <sup>1</sup><br>0.303 ± 0.049         | <sup>1,2</sup><br>0.450 ± 0.069     | <sup>1,2</sup><br>0.602 ± 0.141       | <sup>1</sup><br>0.601 ± 0.142         | <sup>1,2</sup><br>0.476 ± 0.107     | <sup>1,2,3</sup><br>0.491 ± 0.116     |
| <i>ecoli4</i>                         | <sup>1</sup><br>0.883 ± 0.085         | <sup>1</sup><br>0.893 ± 0.064         | <sup>1,2</sup><br>0.929 ± 0.074     | <sup>1,2,3,6,7</sup><br>0.926 ± 0.092 | <sup>1,2,3,6,7</sup><br>0.928 ± 0.091 | <sup>1,2,3</sup><br>0.934 ± 0.090   | <sup>1,2,3</sup><br>0.930 ± 0.090     |
| <i>led7digit-0-2-4-5-6-7-8-9-vs-1</i> | <sup>1,2,4,5</sup><br>0.849 ± 0.077   | <sup>1,2,4,5</sup><br>0.866 ± 0.064   | <sup>1,2,4,5</sup><br>0.874 ± 0.071 | <sup>1,2</sup><br>0.546 ± 0.177       | <sup>1,2,4</sup><br>0.548 ± 0.178     | <sup>1,2,3,7</sup><br>0.876 ± 0.098 | <sup>1,2,3,4</sup><br>0.856 ± 0.128   |
| <i>glass5</i>                         | <sup>4,5</sup><br>0.933 ± 0.163       | <sup>4,5</sup><br>0.835 ± 0.275       | <sup>1,2,4,5</sup><br>0.835 ± 0.275 | <sup>1</sup><br>0.853 ± 0.278         | <sup>1</sup><br>0.853 ± 0.278         | <sup>1,2,4,5</sup><br>0.852 ± 0.278 | <sup>1,4,5</sup><br>0.852 ± 0.277     |
| <i>ecoli-0-3-4-6-vs-5</i>             | <sup>2,3</sup><br>0.735 ± 0.109       | <sup>2,3</sup><br>0.799 ± 0.109       | <sup>2,3</sup><br>0.889 ± 0.112     | <sup>2,3</sup><br>0.890 ± 0.098       | <sup>2,3</sup><br>0.891 ± 0.099       | <sup>2,3</sup><br>0.886 ± 0.100     | <sup>2,3</sup><br>0.887 ± 0.106       |
| <i>yeast-0-5-6-7-9-vs-4</i>           | <sup>1,2</sup><br>0.164 ± 0.068       | <sup>1,2</sup><br>0.137 ± 0.066       | <sup>1,2</sup><br>0.555 ± 0.274     | <sup>1,2</sup><br>0.785 ± 0.048       | <sup>1,2,3</sup><br>0.798 ± 0.054     | <sup>1,2</sup><br>0.671 ± 0.147     | <sup>1,2</sup><br>0.683 ± 0.187       |
| <i>yeast6</i>                         | <sup>2</sup><br>0.529 ± 0.045         | <sup>1</sup><br>0.540 ± 0.058         | <sup>1,2</sup><br>0.735 ± 0.061     | <sup>1,2,3,6,7</sup><br>0.883 ± 0.062 | <sup>1,2,3,6,7</sup><br>0.882 ± 0.062 | <sup>1,2,3</sup><br>0.829 ± 0.060   | <sup>1,2,3</sup><br>0.823 ± 0.075     |
| <i>ecoli-0-6-7-vs-5</i>               | <sup>1</sup><br>0.796 ± 0.145         | <sup>1</sup><br>0.828 ± 0.111         | <sup>1,2</sup><br>0.871 ± 0.111     | <i>all</i><br>0.856 ± 0.121           | <sup>1,2,3,6,7</sup><br>0.860 ± 0.113 | <sup>1,2,3,7</sup><br>0.859 ± 0.114 | <sup>1,2,3</sup><br>0.857 ± 0.114     |
| <i>glass-0-1-6-vs-5</i>               | <sup>1,2</sup><br>0.933 ± 0.202       | <sup>1,2</sup><br>0.847 ± 0.251       | <sup>1,2</sup><br>0.847 ± 0.251     | <sup>1,2</sup><br>0.843 ± 0.251       | <sup>1,2,7</sup><br>0.843 ± 0.251     | <sup>1,2</sup><br>0.842 ± 0.251     | <sup>1,2,4</sup><br>0.842 ± 0.251     |
| <i>ecoli-0-1-3-7-vs-2-6</i>           | <sup>1</sup><br>0.725 ± 0.377         | <sup>1</sup><br>0.737 ± 0.385         | <sup>1</sup><br>0.738 ± 0.385       | <sup>1</sup><br>0.738 ± 0.386         | <sup>1</sup><br>0.737 ± 0.385         | <sup>1</sup><br>0.736 ± 0.384       | <sup>1</sup><br>0.735 ± 0.383         |
| <i>yeast-0-2-5-6-vs-3-7-8-9</i>       | <sup>1</sup><br>0.598 ± 0.077         | <sup>1</sup><br>0.745 ± 0.071         | <sup>1,7</sup><br>0.751 ± 0.060     | <sup>1,2,6,7</sup><br>0.658 ± 0.081   | <sup>1</sup><br>0.729 ± 0.077         | <sup>1</sup><br>0.559 ± 0.095       | <sup>1</sup><br>0.666 ± 0.111         |
| <i>ecoli-0-1-4-7-vs-5-6</i>           | <sup>6</sup><br>0.669 ± 0.203         | <sup>1,4,6,7</sup><br>0.767 ± 0.227   | <i>all</i><br>0.846 ± 0.153         | <sup>1,6</sup><br>0.826 ± 0.167       | <sup>1,4,6,7</sup><br>0.848 ± 0.166   | <sup>1</sup><br>0.830 ± 0.112       | <sup>1,6</sup><br>0.872 ± 0.093       |
| <i>yeast5</i>                         | <sup>1</sup><br>0.807 ± 0.028         | <sup>1</sup><br>0.774 ± 0.040         | <sup>1,2</sup><br>0.831 ± 0.032     | <sup>1,2</sup><br>0.972 ± 0.023       | <sup>1,2</sup><br>0.972 ± 0.023       | <sup>1,2</sup><br>0.969 ± 0.033     | <sup>1,2,6</sup><br>0.968 ± 0.036     |
| <i>shuttle-c2-vs-c4</i>               | <sup>2</sup><br>0.988 ± 0.023         | <sup>1</sup><br>0.990 ± 0.043         | <sup>1,2</sup><br>0.986 ± 0.057     | <sup>1,2,3</sup><br>0.788 ± 0.398     | <sup>1,2,3</sup><br>0.788 ± 0.398     | <sup>1,2,3</sup><br>0.786 ± 0.397   | <sup>1,2,3</sup><br>0.787 ± 0.397     |
| <i>ecoli-0-1-4-7-vs-2-3-5-6</i>       | <sup>6</sup><br>0.517 ± 0.198         | <sup>4,5,6,7</sup><br>0.530 ± 0.224   | <sup>4,5,6,7</sup><br>0.714 ± 0.212 | <sup>1</sup><br>0.771 ± 0.150         | <sup>1</sup><br>0.830 ± 0.133         | <sup>1</sup><br>0.772 ± 0.135       | <sup>1</sup><br>0.847 ± 0.122         |
| <i>yeast-0-3-5-9-vs-7-8</i>           | <sup>1</sup><br>0.324 ± 0.051         | <sup>1</sup><br>0.313 ± 0.092         | <sup>1,2</sup><br>0.632 ± 0.135     | <sup>1,2,3</sup><br>0.591 ± 0.150     | <sup>1,2,3,4,6</sup><br>0.636 ± 0.135 | <sup>1,2,3</sup><br>0.530 ± 0.118   | <sup>1,2,3,4,6</sup><br>0.574 ± 0.132 |
| <i>yeast-1-vs-7</i>                   | <sup>2</sup><br>0.452 ± 0.051         | <sup>1</sup><br>0.459 ± 0.058         | <sup>1,2,6,7</sup><br>0.652 ± 0.133 | <sup>1,2,6</sup><br>0.652 ± 0.117     | <sup>1,2,6,7</sup><br>0.652 ± 0.120   | <sup>1,2</sup><br>0.633 ± 0.087     | <sup>1,2,6</sup><br>0.634 ± 0.093     |
| <i>yeast-1-2-8-9-vs-7</i>             | <sup>1,2</sup><br>0.281 ± 0.039       | <sup>1,2</sup><br>0.289 ± 0.045       | <sup>1,2</sup><br>0.460 ± 0.065     | <sup>1,2</sup><br>0.655 ± 0.117       | <sup>1,2</sup><br>0.657 ± 0.119       | <sup>1,2</sup><br>0.519 ± 0.096     | <sup>1,2</sup><br>0.525 ± 0.111       |
| <i>ecoli-0-1-4-6-vs-5</i>             | <sup>1</sup><br>0.835 ± 0.108         | <sup>1</sup><br>0.877 ± 0.098         | <sup>1,2</sup><br>0.889 ± 0.098     | <sup>1,2,3,6,7</sup><br>0.893 ± 0.087 | <sup>1,2,3,6,7</sup><br>0.893 ± 0.087 | <sup>1,2,3</sup><br>0.889 ± 0.089   | <sup>1,2,6</sup><br>0.892 ± 0.087     |
| <i>glass-0-1-5-vs-2</i>               | <sup>1</sup><br>0.518 ± 0.148         | <sup>1</sup><br>0.457 ± 0.117         | <sup>1,2</sup><br>0.573 ± 0.193     | <sup>1,2</sup><br>0.681 ± 0.147       | <sup>1,2</sup><br>0.683 ± 0.143       | <sup>1,2</sup><br>0.485 ± 0.078     | <sup>1,2</sup><br>0.485 ± 0.084       |
| <i>yeast-2-vs-4</i>                   | <sup>2</sup><br>0.445 ± 0.216         | <sup>1</sup><br>0.386 ± 0.223         | <sup>1,2,6,7</sup><br>0.816 ± 0.162 | <sup>1,2,3,6,7</sup><br>0.852 ± 0.077 | <sup>1,2,3,6,7</sup><br>0.857 ± 0.072 | <sup>1</sup><br>0.852 ± 0.080       | <sup>1</sup><br>0.858 ± 0.069         |
| <i>glass-0-6-vs-5</i>                 | <sup>2</sup><br>0.903 ± 0.272         | <sup>1</sup><br>0.863 ± 0.277         | <sup>1,2</sup><br>0.863 ± 0.277     | <sup>1,2</sup><br>0.786 ± 0.319       | <sup>1,2</sup><br>0.786 ± 0.319       | <sup>1,2</sup><br>0.786 ± 0.318     | <sup>1,2,5</sup><br>0.786 ± 0.318     |
| <i>glass2</i>                         | <sup>4,5,6,7</sup><br>0.570 ± 0.109   | <sup>1</sup><br>0.580 ± 0.079         | <sup>1</sup><br>0.612 ± 0.146       | <sup>1</sup><br>0.729 ± 0.113         | <sup>1</sup><br>0.731 ± 0.113         | <sup>1</sup><br>0.607 ± 0.082       | <sup>1</sup><br>0.615 ± 0.084         |
| <i>yeast-2-vs-8</i>                   | <sup>1,2</sup><br>0.518 ± 0.136       | <sup>1,2</sup><br>0.574 ± 0.116       | <sup>1,2</sup><br>0.742 ± 0.141     | <sup>1,2,3,6,7</sup><br>0.728 ± 0.153 | <sup>1,2,3,6,7</sup><br>0.728 ± 0.154 | <sup>1</sup><br>0.734 ± 0.147       | <sup>1,2</sup><br>0.736 ± 0.151       |
| <i>vowel0</i>                         | <sup>1</sup><br>0.913 ± 0.040         | <sup>1</sup><br>0.904 ± 0.025         | <sup>1,2,7</sup><br>0.921 ± 0.025   | <sup>1,2</sup><br>0.874 ± 0.069       | <sup>1,2</sup><br>0.918 ± 0.054       | <sup>1,2</sup><br>0.871 ± 0.061     | <sup>1,2</sup><br>0.895 ± 0.045       |
| <i>glass-0-4-vs-5</i>                 | <sup>2,4,6,7</sup><br>0.963 ± 0.149   | <sup>4,6</sup><br>0.899 ± 0.180       | <sup>2,4,6,7</sup><br>0.904 ± 0.178 | <sup>1</sup><br>0.916 ± 0.178         | <sup>2,4,6,7</sup><br>0.921 ± 0.176   | <sup>1</sup><br>0.916 ± 0.178       | <sup>6</sup><br>0.921 ± 0.176         |
| <i>glass-0-1-4-6-vs-2</i>             | <sup>2,3</sup><br>0.528 ± 0.145       | <sup>1</sup><br>0.527 ± 0.146         | <sup>1</sup><br>0.587 ± 0.177       | <sup>2</sup><br>0.716 ± 0.110         | <sup>2,3</sup><br>0.721 ± 0.110       | <sup>2</sup><br>0.580 ± 0.093       | <sup>2,3</sup><br>0.581 ± 0.084       |
| <i>yeast4</i>                         | <sup>1,2</sup><br>0.361 ± 0.067       | <sup>1,2</sup><br>0.273 ± 0.046       | <sup>1,2</sup><br>0.434 ± 0.069     | <sup>1,2,3,6,7</sup><br>0.799 ± 0.079 | <sup>1,2,3,6,7</sup><br>0.803 ± 0.076 | <sup>1,2</sup><br>0.594 ± 0.125     | <sup>1,2</sup><br>0.556 ± 0.174       |
| <i>ecoli-0-4-6-vs-5</i>               | <sup>2</sup><br>0.842 ± 0.122         | <sup>1</sup><br>0.878 ± 0.107         | <sup>1,2</sup><br>0.894 ± 0.102     | <sup>1,2,3,6,7</sup><br>0.895 ± 0.090 | <sup>1,2,3,6,7</sup><br>0.894 ± 0.090 | <sup>1,2,3,7</sup><br>0.896 ± 0.091 | <sup>1,2</sup><br>0.895 ± 0.091       |
| <i>page-blocks-1-3-vs-4</i>           | <sup>1,2</sup><br>0.730 ± 0.130       | <sup>1,2</sup><br>0.739 ± 0.136       | <sup>1,2</sup><br>0.793 ± 0.165     | <sup>1,2</sup><br>0.704 ± 0.133       | <sup>1,2</sup><br>0.756 ± 0.142       | <sup>1,2</sup><br>0.701 ± 0.131     | <sup>1,2</sup><br>0.712 ± 0.126       |
| <i>yeast-0-2-5-7-9-vs-3-6-8</i>       | <sup>1,2,4,6,7</sup><br>0.398 ± 0.065 | <sup>1,2,4,6,7</sup><br>0.303 ± 0.110 | <sup>6</sup><br>0.683 ± 0.203       | <sup>1,2,4,6,7</sup><br>0.891 ± 0.035 | <sup>1,2,4,6,7</sup><br>0.890 ± 0.036 | <sup>1</sup><br>0.831 ± 0.083       | <sup>4</sup><br>0.871 ± 0.072         |
| <i>ecoli-0-1-vs-2-3-5</i>             | <sup>2</sup><br>0.305 ± 0.352         | <sup>1</sup><br>0.351 ± 0.371         | <sup>1,2</sup><br>0.768 ± 0.246     | <sup>1,2,3,6,7</sup><br>0.782 ± 0.201 | <sup>1,2,3,6</sup><br>0.795 ± 0.200   | <sup>1,2,3</sup><br>0.824 ± 0.128   | <sup>1,2,3,6</sup><br>0.854 ± 0.103   |
| <i>ecoli-0-6-7-vs-3-5</i>             | <sup>1,2</sup><br>0.258 ± 0.355       | <sup>1,2</sup><br>0.374 ± 0.370       | <sup>1,2</sup><br>0.560 ± 0.294     | <sup>1,2</sup><br>0.771 ± 0.124       | <sup>1,2</sup><br>0.806 ± 0.129       | <sup>1,2</sup><br>0.779 ± 0.121     | <sup>1,2,3,4,5</sup><br>0.810 ± 0.114 |
| <i>ecoli-0-3-4-7-vs-5-6</i>           | <sup>1</sup><br>0.756 ± 0.105         | <sup>1</sup><br>0.821 ± 0.105         | <sup>1,2</sup><br>0.887 ± 0.090     | <sup>1,2,3</sup><br>0.865 ± 0.087     | <sup>1,2,3</sup><br>0.878 ± 0.087     | <sup>1,2,3</sup><br>0.875 ± 0.103   | <sup>1,2,3</sup><br>0.885 ± 0.090     |
| <i>ecoli-0-2-6-7-vs-3-5</i>           | <sup>1,2</sup><br>0.278 ± 0.340       | <sup>1,2</sup><br>0.423 ± 0.334       | <sup>1,2</sup><br>0.553 ± 0.289     | <sup>1,2</sup><br>0.787 ± 0.131       | <sup>1,2</sup><br>0.799 ± 0.130       | <sup>1,2</sup><br>0.769 ± 0.117     | <sup>1,2</sup><br>0.806 ± 0.127       |
| <i>shuttle-c0-vs-c4</i>               | <sup>1</sup><br>0.990 ± 0.013         | <sup>1</sup><br>0.989 ± 0.014         | <sup>1,2</sup><br>0.989 ± 0.014     | <sup>1,2,3,6</sup><br>0.994 ± 0.009   | <sup>1,2,3,6</sup><br>0.994 ± 0.009   | <sup>1,2,3</sup><br>0.994 ± 0.009   | <sup>1,2,3,5,6</sup><br>0.994 ± 0.009 |
| <i>ecoli-0-3-4-vs-5</i>               | <sup>1,2,3</sup><br>0.772 ± 0.112     | <sup>1,2,3</sup><br>0.816 ± 0.119     | <sup>1,2,3</sup><br>0.883 ± 0.130   | <sup>1,2,3</sup><br>0.897 ± 0.125     | <sup>1,2,3</sup><br>0.897 ± 0.125     | <sup>1,2,3</sup><br>0.900 ± 0.122   | <sup>1,2,3</sup><br>0.899 ± 0.122     |

Table 11: Results for GMEAN metric

|                  | GNB (1) | OSB (2) | OKNORAU (3) | TBAC (4) | OTBAC (5)  | TBAW (6) | OTBAW (7) |
|------------------|---------|---------|-------------|----------|------------|----------|-----------|
| <i>Mean rank</i> | 2.268   | 2.500   | 4.378       | 4.768    | 5.524      | 3.878    | 4.683     |
|                  | –       | –       | 1,2         | 1,2,6    | <i>all</i> | 1,2      | 1,2,6     |

Table 12: Results for mean ranks according to GMEAN metric