

FINAL: QUESTION 5

Suppose we have blog posts in a (not sharded*) postings collection, of the form:

```
{
  _id : ...,
  author : 'joe',
  title : 'Too big to fail',
  text : '...',
  tags : [ 'business', 'finance' ],
  when : ISODate("2008-11-03"),
  views : 23002,
  votes : 4,
  voters : ['joe', 'jane', 'bob', 'somesb'],
  comments : [
    { commenter : 'allan',
      comment : 'Well, i don't think so...',
      flagged : false,
      plus : 2
    },
    ...
  ]
}
```

Which of these statements is true?

Note: to get a multiple answer question right in this final you must get all the components right, so even if some parts are simple, take your time.

*Certain restrictions apply to unique constraints on indexes when sharded, so I mention this to be clear.

- ☐ We can create an index to make the following query fast/faster:
db.postings.find({ "comments.flagged" : true })
- ☐ One way to assure people vote at most once per posting is to use this form of update: db.postings.update({ _id: . . . }, { \$inc : {votes:1}, \$push : {voters:'joe'} }); combined with an index on { voters : 1 } which has a unique key constraint.
- ☐ One way to assure people vote at most once per posting is to use this form of update: db.postings.update({ _id: . . . , voters:{\$ne:'joe'} }, { \$inc : {votes:1},

```
$push : {voters:'joe'} } );
```

SUBMIT

