

# Rešenja zadatka za treći kolokvijum iz Operativnih sistema 1 Jun 2018.

## 1. (10 poena)

```
void readBlock (char* addr) {  
    for (int i=0; i<BlockSize; i++)  
        addr[i] = getchar();  
}
```

## 2. (10 poena)

```
#include <unistd.h>  
#include <fcntl.h>  
  
int fcopy (const char *filenamefrom, const char *filenameto) {  
    static const int BufferSize = 1024;  
    char buffer[BufferSize];  
  
    int ffrom = open(filenamefrom, O_RDONLY);  
    if (ffrom<0) return ffrom;  
  
    int fto = open(filenameto, O_WRONLY|O_CREAT|O_APPEND|O_TRUNC);  
    if (fto<0) {  
        close(ffrom);  
        return fto;  
    }  
  
    do {  
        ssize_t numRead = read(ffrom, buffer, BufferSize);  
        if (numRead<0) {  
            close(ffrom);  
            close(fto);  
            return numRead;  
        }  
        ssize_t numWritten = 0;  
        while (numWritten<numRead) {  
            ssize_t nw = write(fto, &buffer[numWritten], numRead-numWritten);  
            if (nw<0) {  
                close(ffrom);  
                close(fto);  
                return nw;  
            }  
            numWritten += nw;  
        }  
    } while (numRead!=0);  
  
    close(ffrom);  
    close(fto);  
    return 0;  
}
```

## 3. (10 poena)

```
unsigned long extend (FCB* fcb, unsigned extension) {
    if (fcb==0) return 0;

    unsigned long oldSize = fcb->size;
    unsigned oldNumOfBlocks = oldSize/BlockSize + oldSize%BlockSize?1:0;

    unsigned long newSize = oldSize + extension;
    if (newSize>MaxFileSize) newSize = MaxFileSize;
    unsigned newNumOfBlocks = newSize/BlockSize + newSize%BlockSize?1:0;

    unsigned i;
    for (i=oldNumOfBlocks; i<newNumOfBlocks; i++) {
        unsigned long block = allocateBlock();
        if (block==0) break;
        fcb->index[i] = block;
    }

    if (i<newNumOfBlocks)
        newSize = i*BlockSize;

    fcb->size = newSize;
    return newSize-oldSize;
}
```