

SOLUTION FORM 2011/12

Author R Bowden

Module EEE3013

Question No.

B2

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of

Please indicate here the total number of questions set by the examiner (ie A1, B3, B4: 3 questions):

Special requirements (if none write 'none'):

If the 'Table of Constants, Formulae & Transforms' are needed, please tick box: ☐

Mark
(to total 100
for each
question)

Please INSERT TEXT HERE:

a)

```
template<class T> class node;           //      5
```

```
template<class T>                       //      5
```

```
class node {                           //      5
```

```
    public:                             //
```

```
        node<T>* lnk;                   //      5
```

```
        T item;                         //      5
```

```
        node():lnk(NULL){};             //      5
```

```
        ~node(){ };                     //      5
```

```
};
```

b)

```
template<class T>                       //      2
```

```
class list {                            //      3
```

```
    private:                             //      3
```

```
        node<T>* start;                 //      5
```

```
        void remove(node<T>* cur);      //      This is part of question d
```

```
    public:                               //      3
```

```
        list();                         //      2
```

```
        ~list();                        //      2
```

```
};
```

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c)

```
template<class T> // 2
list<T>::list() // 3
{
    start=new node<T>; // 10
}
```

d)

```
template<class T> // 2
list<T>::~~list() // 3
{
    remove(start); // 10
}

template<class T> //
void list<T>::remove(node<T>* cur) //
{
    if (cur->lnk!=NULL) // 10% if helper is correct
        remove(cur->lnk); //
    delete cur; //
}
```

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(required on each page)

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