Name : _____

CS 100-002 Quiz #10

Give the output of the C program shown below when run with the command **`./a.out QUICK 33 43`**

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
typedef struct _node {
        char value;
        struct _node *next;
} Node;
int main(int argc, char *argv[]) {
    Node *ptr=malloc(sizeof(Node));
    ptr->value='*';
    Node *ptr1=ptr;
    for (int i=0; i<strlen(argv[1]); i++) {
        ptr1->next=malloc(sizeof(Node));
        ptr1->next->value=argv[1][i];
        ptr1=ptr1->next;
    }
    ptr1->next=ptr;

    for (int k=2; k<argc; k++) {
        int x = atoi(argv[k]);
        int a = x / 10;
        int b = x % 10;
        for (int i=0; i<a+b; i++) {
            if (i>=a) printf("%c", ptr->value);
            ptr = ptr->next;
        }
        printf("\n");
    }
    return 0;
}
```

Give the output of the C program shown below when run with the command **`./a.out 4444 333 1 22`**

```
#include <stdio.h>
#include <stdlib.h>
typedef struct node {
        char *val;
        struct node *next;
} Node;

int main(int argc, char *argv[]) {
    Node *ptr = NULL;
    for (int i=1; i<argc; i++) {
        Node *temp = malloc( sizeof(Node) );
        temp->val = argv[i];
        temp->next = ptr;
        ptr = temp;
    }
    int i=1;
    while (ptr!=NULL) {
        printf("%d: %s\n", i, ptr->val);
        i++;
        ptr = ptr->next;
    }
    return 0;
}
```

Name : _____

CS 100-002 Quiz #10

Give the output of the C program shown below when run with the command **`./a.out BLANK 33 43`**

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
typedef struct _node {
        char value;
        struct _node *next;
} Node;
int main(int argc, char *argv[]) {
    Node *ptr=malloc(sizeof(Node));
    ptr->value='*';
    Node *ptr1=ptr;
    for (int i=0; i<strlen(argv[1]); i++) {
        ptr1->next=malloc(sizeof(Node));
        ptr1->next->value=argv[1][i];
        ptr1=ptr1->next;
    }
    ptr1->next=ptr;

    for (int k=2; k<argc; k++) {
        int x = atoi(argv[k]);
        int a = x / 10;
        int b = x % 10;
        for (int i=0; i<a+b; i++) {
            if (i>=a) printf("%c", ptr->value);
            ptr = ptr->next;
        }
        printf("\n");
    }
    return 0;
}
```

Give the output of the C program shown below when run with the command **`./a.out DDDD CCC A BB`**

```
#include <stdio.h>
#include <stdlib.h>
typedef struct node {
        char *val;
        struct node *next;
} Node;

int main(int argc, char *argv[]) {
    Node *ptr = NULL;
    for (int i=1; i<argc; i++) {
        Node *temp = malloc( sizeof(Node) );
        temp->val = argv[i];
        temp->next = ptr;
        ptr = temp;
    }
    int i=1;
    while (ptr!=NULL) {
        printf("%d: %s\n", i, ptr->val);
        i++;
        ptr = ptr->next;
    }
    return 0;
}
```