CS & IT ENGINEERING

Programming in C

Strings-2

DPP 02 Discussion Notes

By- Pankaj Sharma sir

01 Question

02 Discussion

Q.1

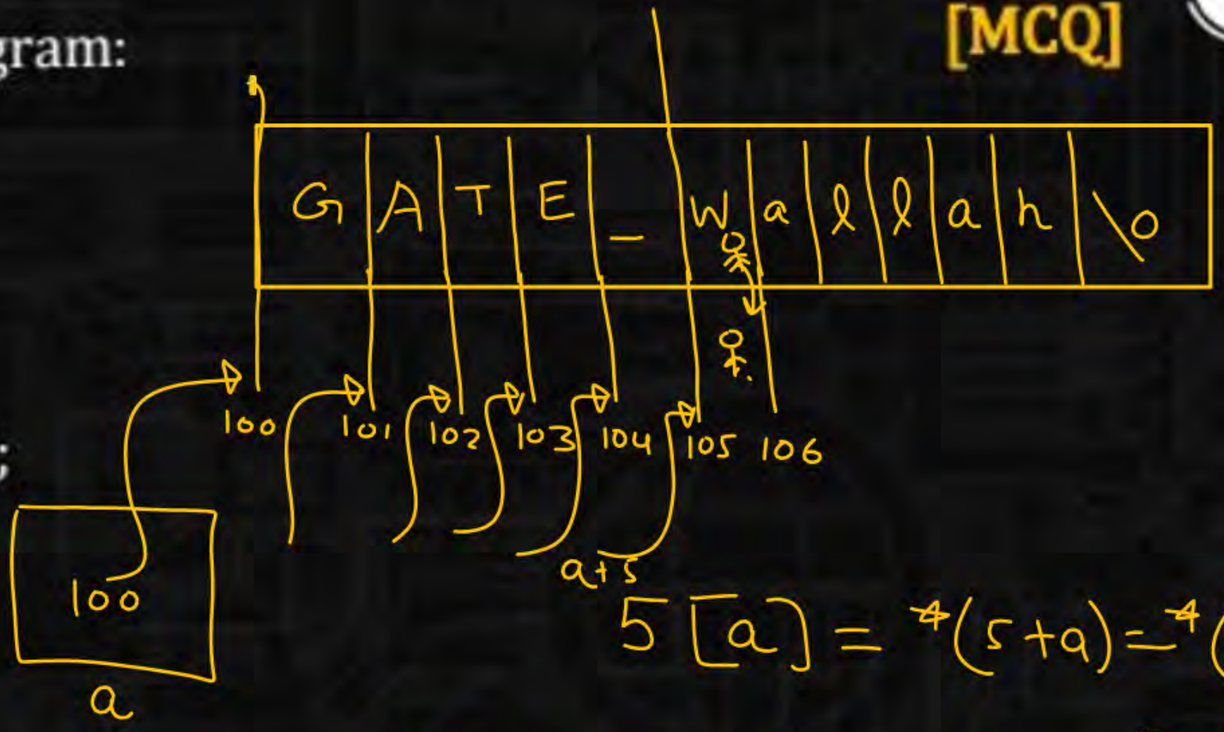
[MCQ]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
int main()
{
    char a[]="GATE_Wallah";
    printf("%s\t", &5[a]);
    printf("%s", (a+5));
    return 0;
}
```

The output is-

Wallah
Wallah



$5[a] = *(5+a) = *(a+5)$

$= a[5]$

$= *(a+5)$

$a+5 \equiv$ add. of 'W'

$*(a+5) =$ 'W'

$a[5] =$ 'W'

$\&a[5] \Rightarrow$ add. of char. 'W'

A. Runtime Error

B. Wallah Wallah

C. _Wallah _Wallah

D. Compilation Error

Q.2

[MCQ]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
int main()
{
    char s[5];
    s="GATE";
    printf("%s",s);
    return 0;
}
```

The output is-

Name of array

Array-name can not be Lvalue for any assignment statement.

(D)

A. GATE

B. G

C. NULL

D. Compiler Error

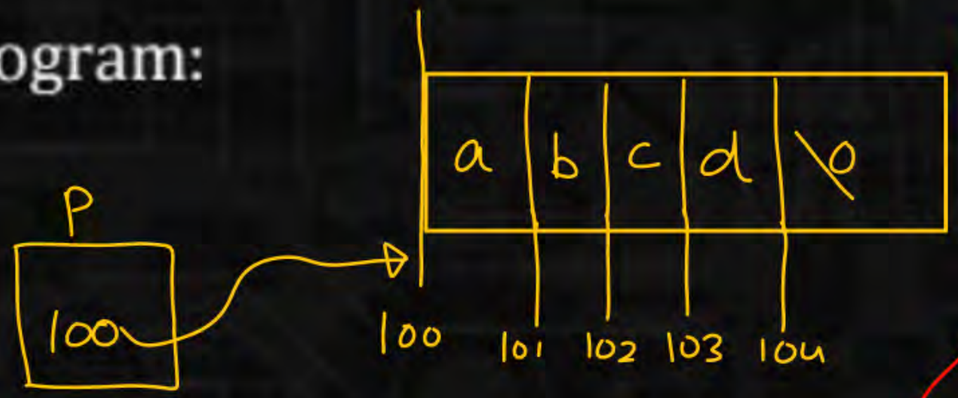
Q.3

[NAT]

Consider the following program:

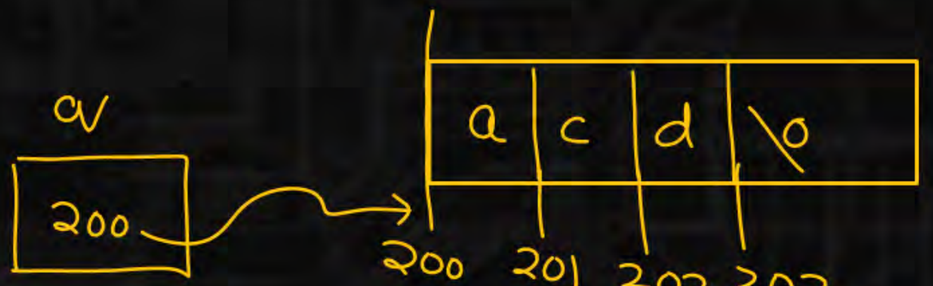
```
#include<stdio.h>
#include<string.h>
int main()
{
   char *p="abcd";
   char *q="acd";
   int a;
   a=strcmp(p,q)?strlen(p):strlen(q);
   printf("%d", a);
   return 0;
}
```

The output is _____.



a b c d
↑
First unmatched char.

a c d
↑



True
-1

exp1 ? exp2 : exp3;
true

a = strlen(p)

a = 4

b c
x x+1
x < x+1

4

Q.4

[MCQ]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
int main()
{
    char * s[5]={"CS", "MECH", "ECE",
    "ELECTRICAL", "CIVIL"};
    char ** p[5]= {s+2, s+4, s+1, s+3, s};
    char ***q=p;
    q=q+3;
    printf("%s",q[-2][-1]);
    q=q-2;
    printf("%c",***q+++1);
    return 0;
}
```

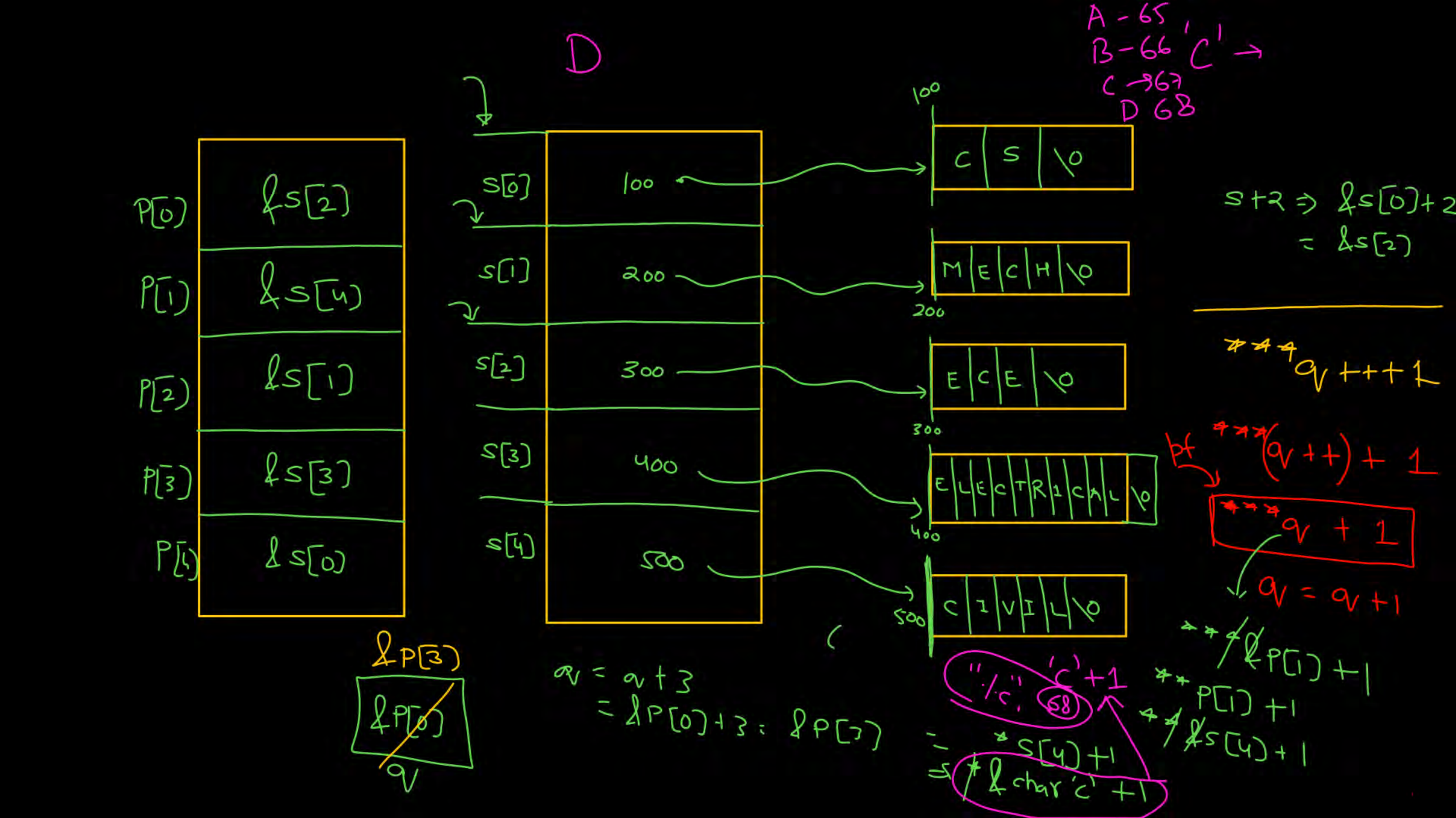
The output printed is-

A. CSF

B. ELECTRICALD

C. CSD

D. CIVILF

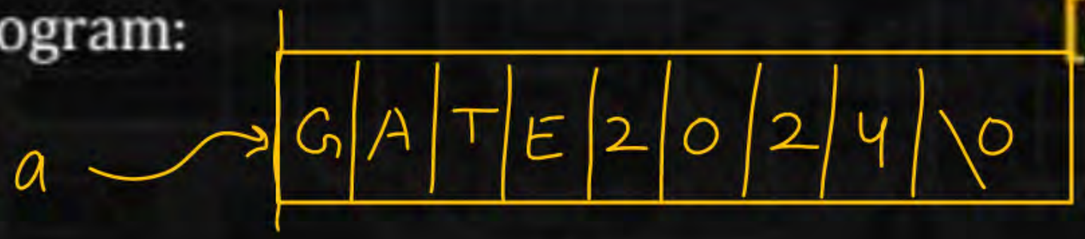

D
A - 65
B - 66
C → 67
D 68
'C' →
P[0]
&s[2]
P[1]
&s[4]
P[2]
&s[1]
P[3]
&s[3]
P[4]
&s[0]
s[0]
100
s[1]
200
s[2]
300
s[3]
400
s[4]
500
100
C S \0
200
M E C H \0
300
E C E \0
400
E L E C T R I C A L \0
500
C I V I L \0
s+2 ⇒ &s[0]+2
= &s[2]
***q+++1
bf
***(q++) + 1
***q + 1
q = q+1
**&P[1]+1
&P[3]
&P[0]
q
q = q+3
= &P[0]+3 : &P[3]
'c'+1
'/c' 68
*s[4]+1
*&char 'c' +1
**P[1]+1
*&s[4]+1

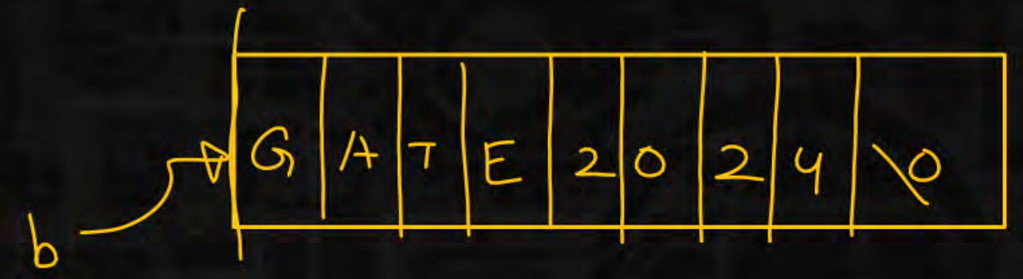
Q.5

[MCQ]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
int main()
 {
    char a[]="GATE2024";
    char b[9];
    strcpy(b, a);
    printf("%s%d%d",b,strlen(b),sizeof(b));
    return 0;
}
```





(C)

8 9

GATE202489

The output is –

A. Compilation Error

B. GATE202488

C. GATE202489

D. GATE202499

Q.6

[MCQ]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
void func(char *ptr)
{
    if((*ptr)!='\0'){
1.  printf("%c", *ptr);
2.  func(ptr+2);
    }
}
int main()
{
    func("GATEWallah");
    return 0;
}
```

The output is _____

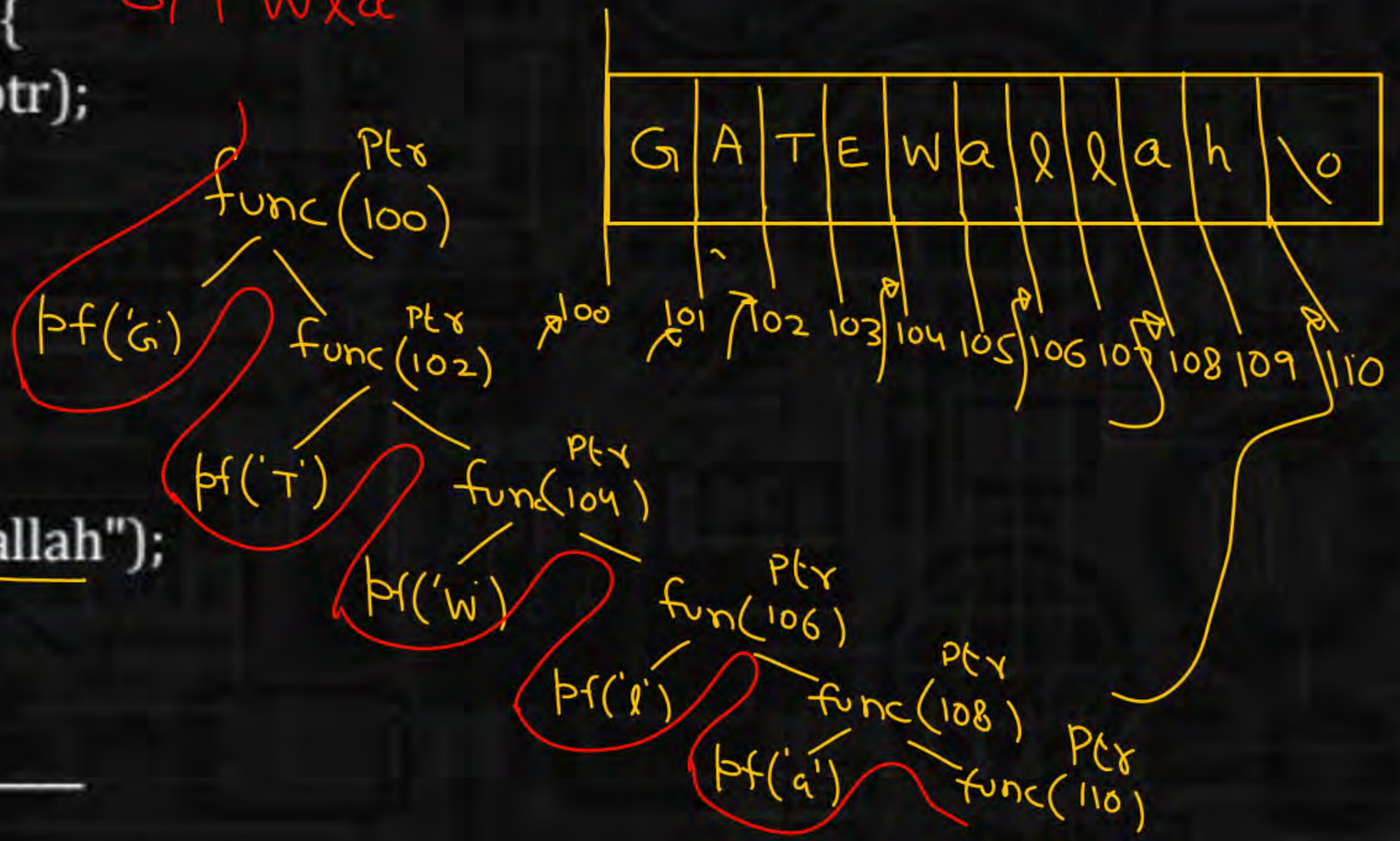
A. GTWla

B. GTWlh

C. GATEWallah

D. None of the above

GTWla



Q.7

[MCQ]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
int main()
{
    char a[]="GATEWallah";
    char *p;
    p=a;
    p+=4;
    *p='\0';
    printf("%s",p);
    return 0;
}
```

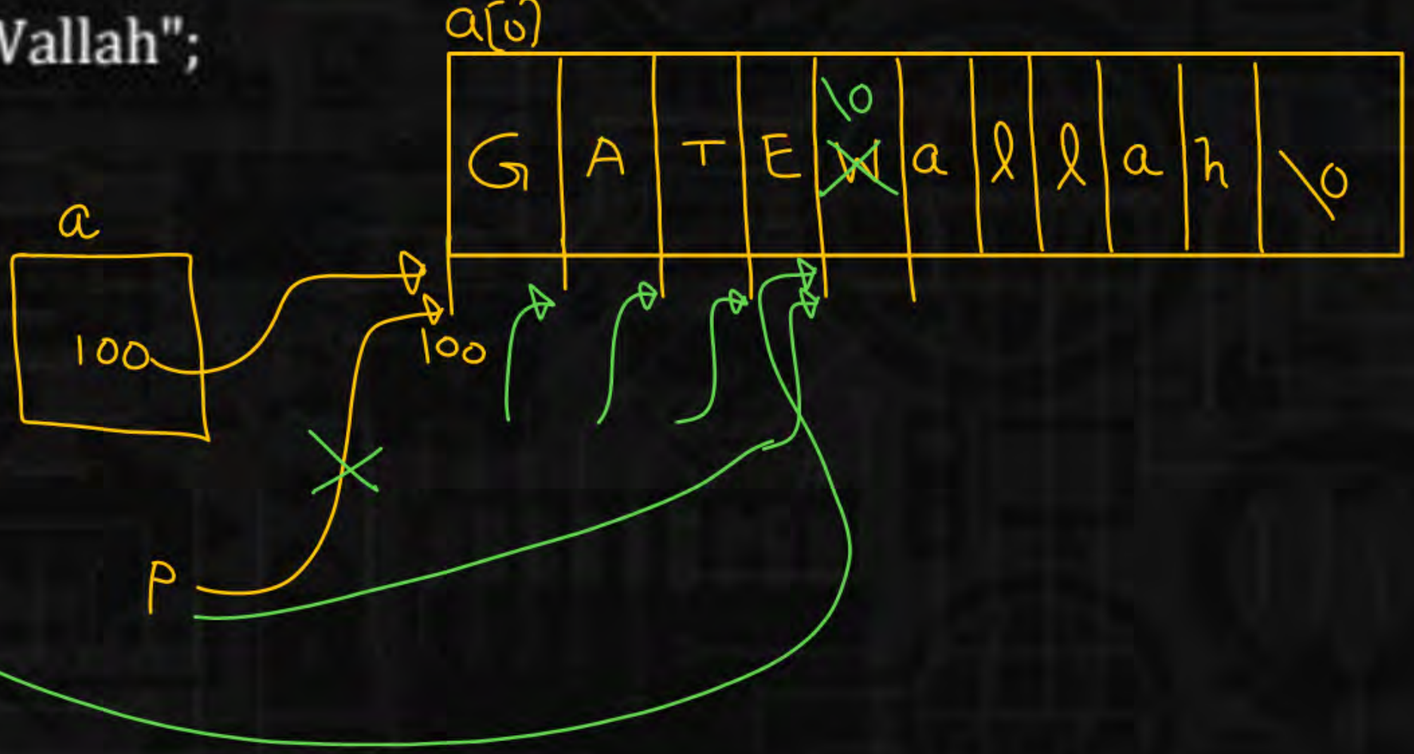
The output is-

A. No output

B. Wallah

C. \0allah

D. GATE\0allah



Q.8

[NAT]

Consider the following program:

```
#include<stdio.h>
#include<string.h>
int main( )
{
    char *a[ ]={"GATE", "Parakram", "Wallah", "Shreshth"};
    char **b[ ]={a+2, a+3, a+1, a};
    char ***c=b;
    printf("%s", *--*++c+3);
    printf("%s", **++c);
    return 0;
}
```

The length of the output string is 11.

--(++c) + 3

(i) c = c+1

(ii) *--*c + 3 → *--(*c) + 3

(i) *c = *c - 1

(ii) **c + 3

b → &a[2], &a[3], &a[1], a[0]

**&b[1] + 3

*b[1] + 3

&a[2] + 3

a[2] + 3

lah

Parakram

--++c + 3

1) $c = c + 1$

$= \&b[0] + 1$

$= \&b[1]$

2) $*c = *c - 1$

$b[1] = b[1] - 1$

$= \&a[3] - 1 = \&a[2]$

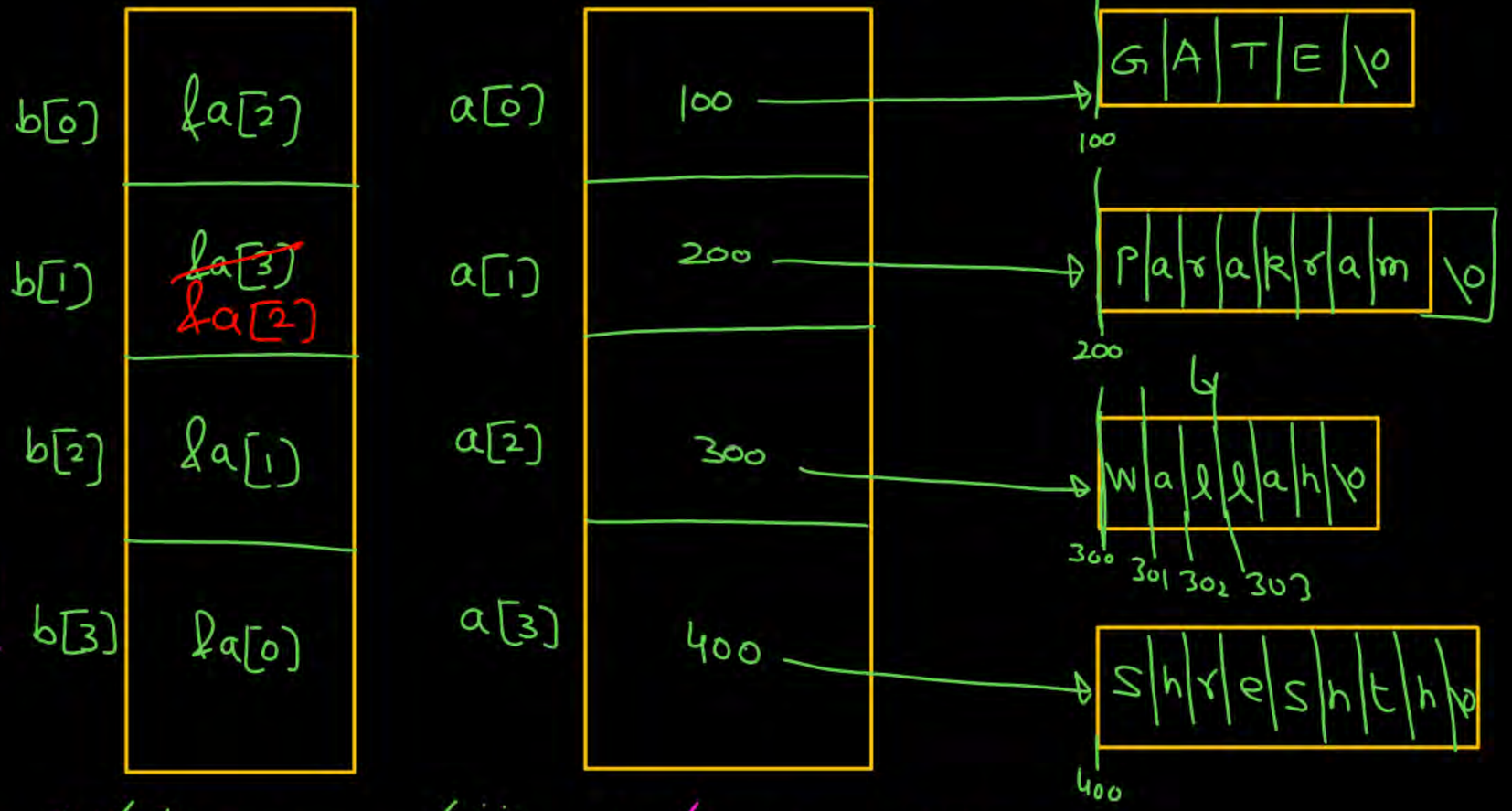
c

$\&b[0]$ ~~$\&b[1]$~~ $\&b[2]$

$c = c + 1$

$= \&b[1] + 1$

$= \&b[2]$



$\rightarrow \&b[2]$

$\rightarrow b[2] = \&a[1] = a[1]$

(ii) $\rightarrow (++c)$ $\rightarrow c = c + 1$

$\rightarrow c$


THANK YOU GW
SOLDIERS !