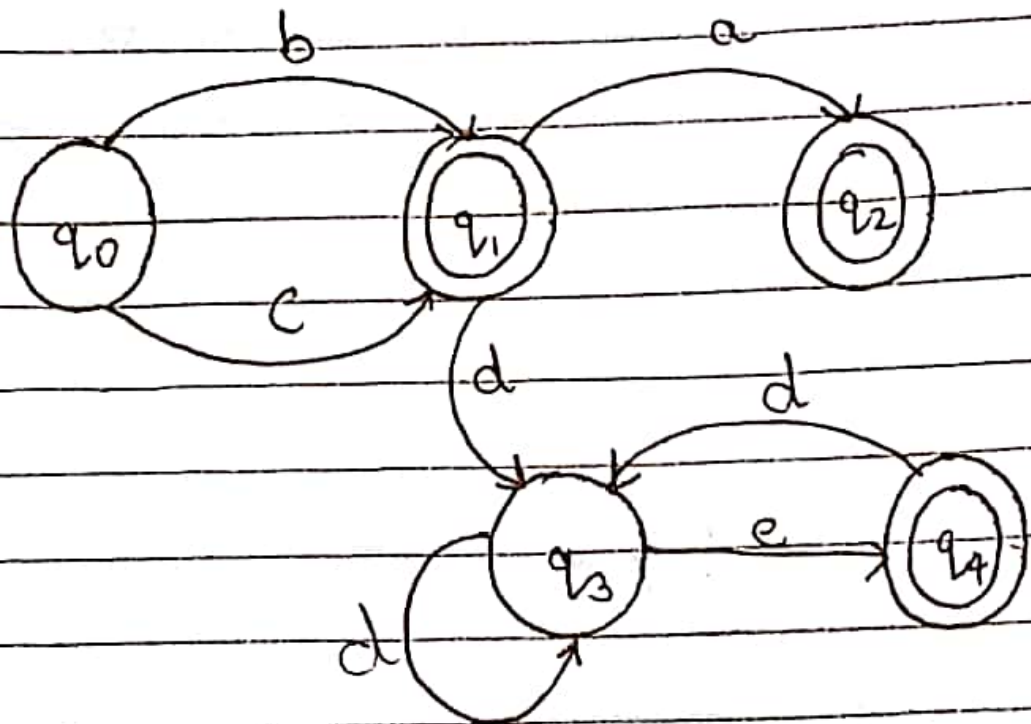


Ans: 1)

The regular expression that describes L is

$$[b^*ab(bb)^*]^+$$

Ans 2)



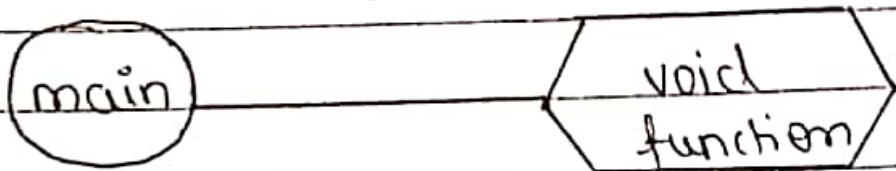
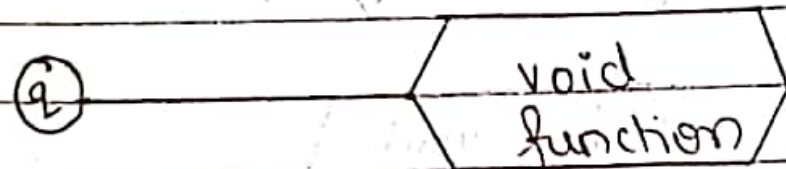
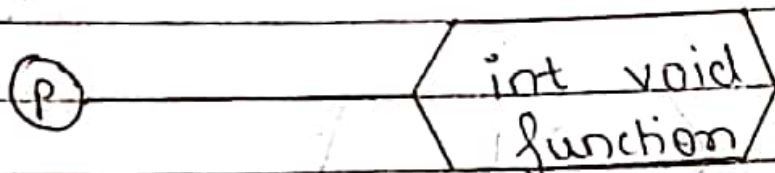
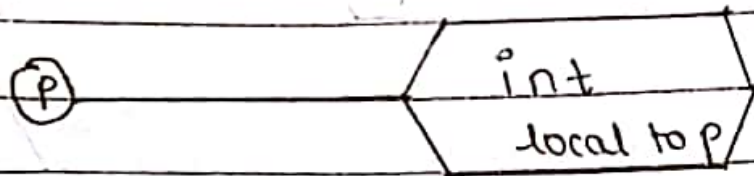
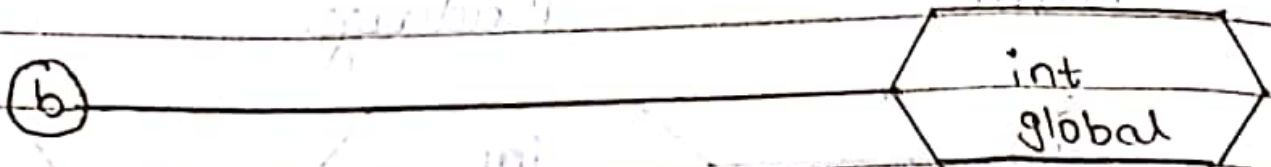
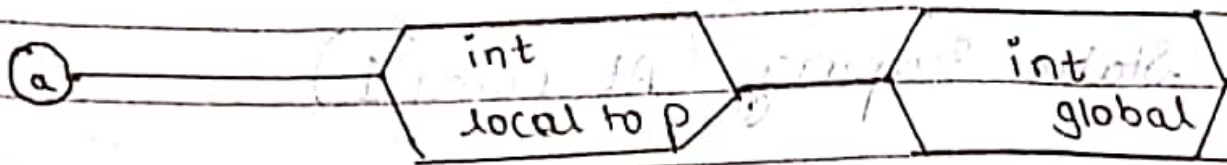
Answer :- 3

Symbol table at point 1

Static Scoping (At point 1)

Name	Bindings	Bottom
a	int local to p	int global
b		int global
p	int local to p	
P	int void function	

Dynamic Scoping (At point 1)



Note : No return type for main() given in question hence considered void

Static Scoping (At point 2)

a

int global

b

int
local to q

int
global

p

int void
function

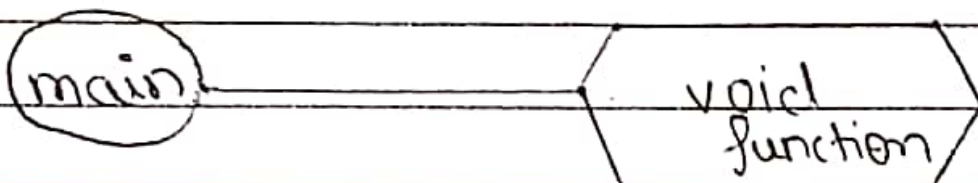
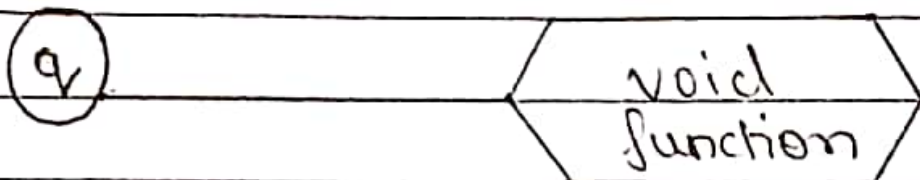
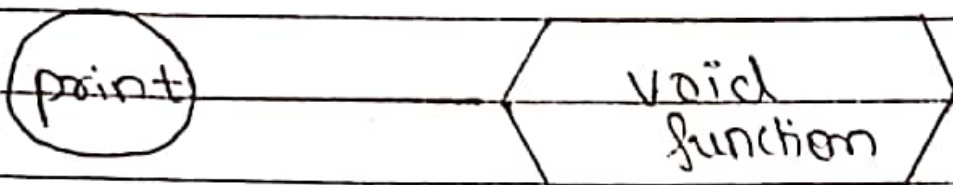
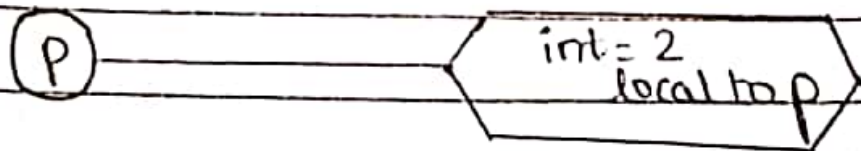
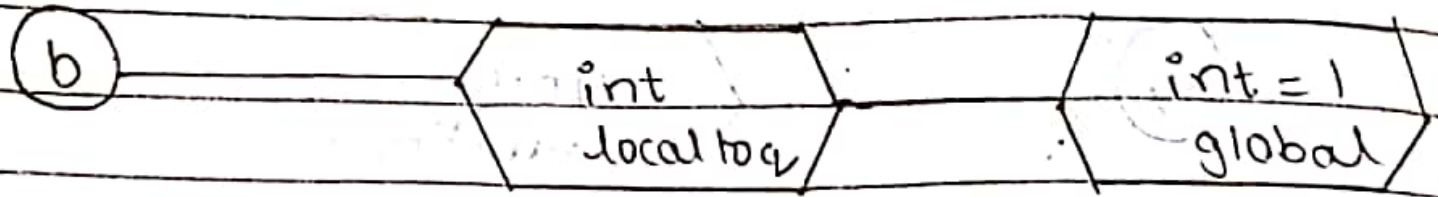
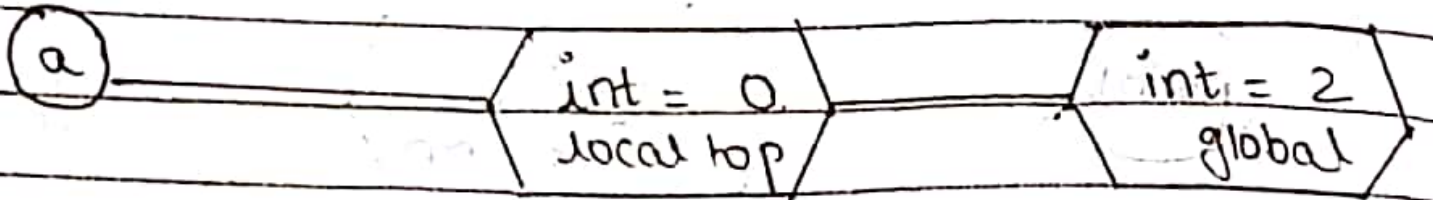
print

void
function

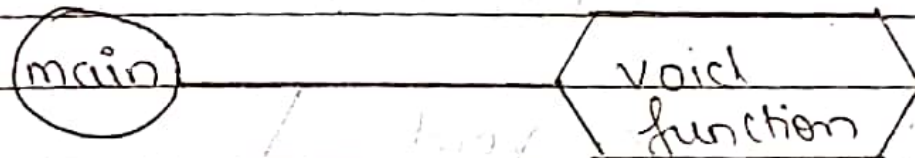
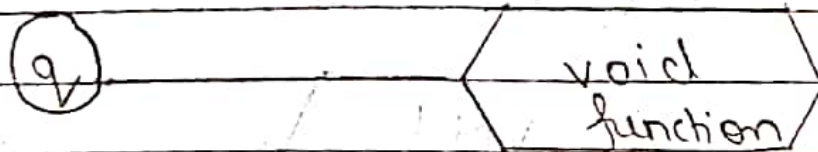
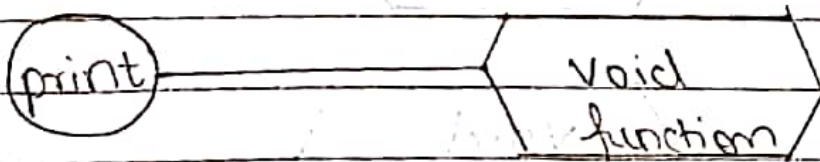
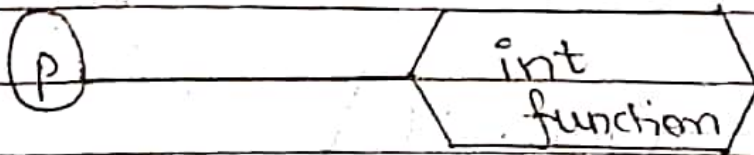
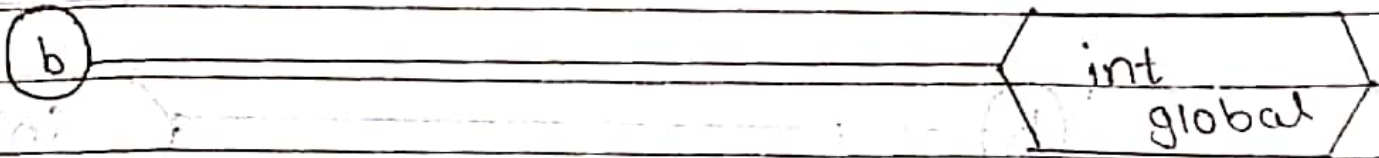
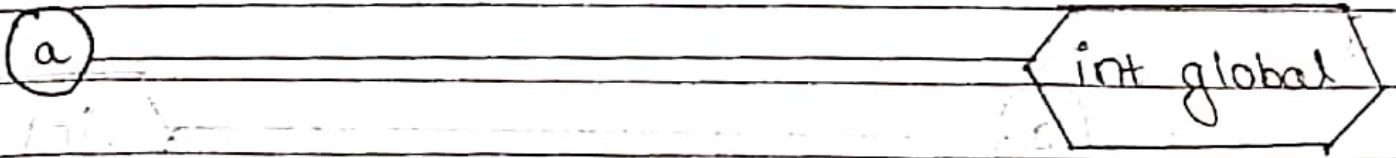
q

void
function

Dynamic Scoping (At point 2)



Static Scoping (At point 3)



Dynamic Scoping (At point 3)

a

int
global

b

int
global

p

int void
function

print

void
function

q

void
function

main

void
function

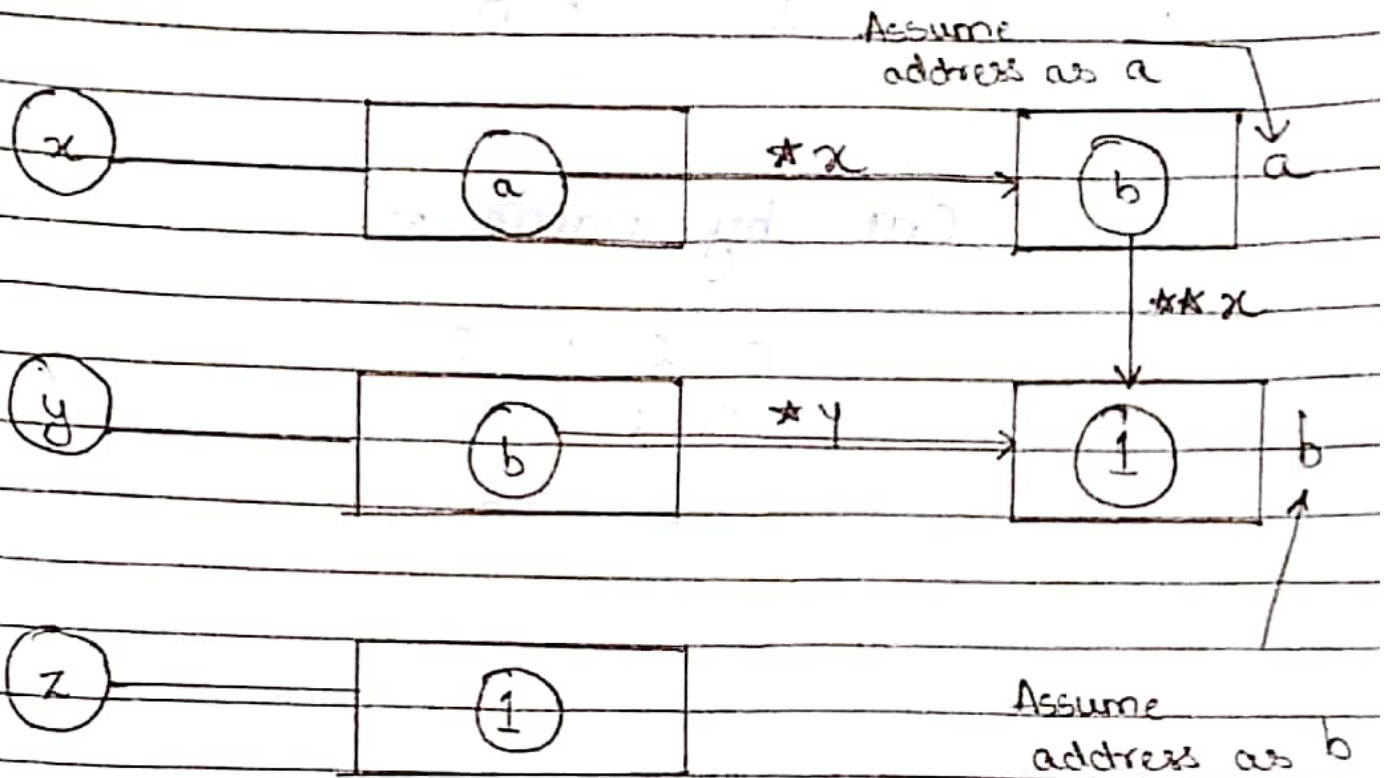
Output :

With static scoping = 3, 1

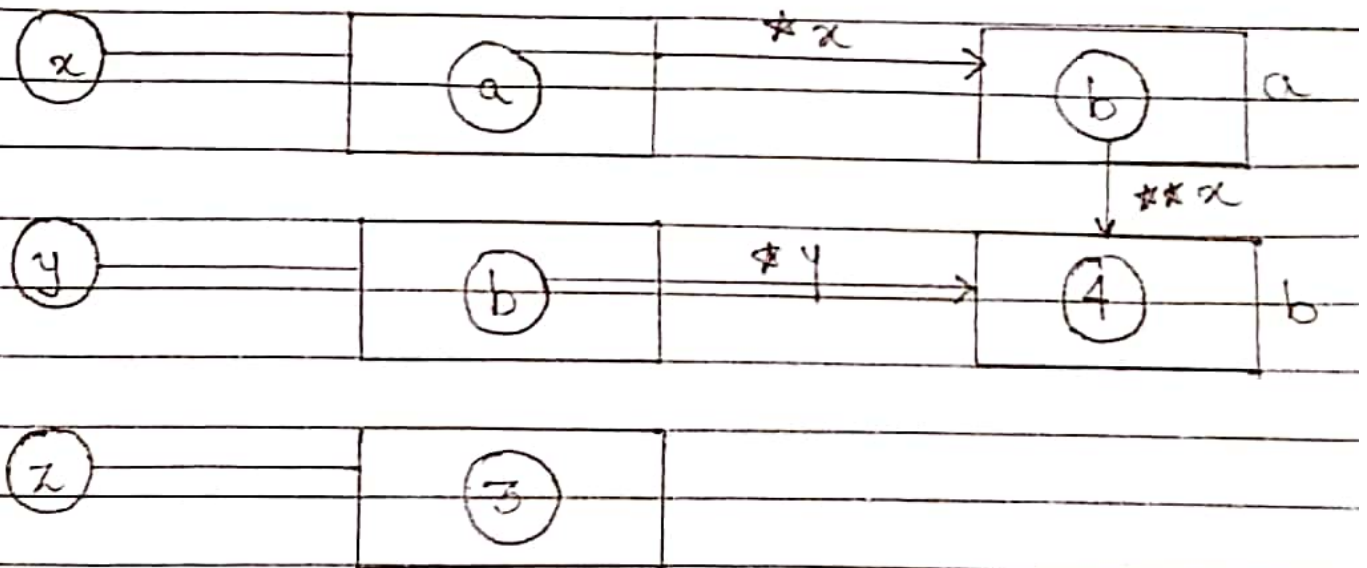
With dynamic scoping = 3, 4

Answer 4

At line 11



At line 15



Output of Program \rightarrow 1, 1, 3

$*y$ and $**x$ are aliases of each other

Answer 5 :-

Call by reference :-

1	2	1	0
	2	0	0

Call by name :-

0	2	1	2
0	1	2	