

⇒ LR(0) item :-

$S \rightarrow AB$

$A \rightarrow Aa/a$

$B \rightarrow bBa/ba$

Rule	LR(0) Context	LR(0) item
$S \rightarrow AB$	$\{AB\}$	$S \rightarrow \cdot AB, S \rightarrow A \cdot B, S \rightarrow AB \cdot$
$A \rightarrow Aa$	$\{Aa\}$	$A \rightarrow \cdot Aa, A \rightarrow A \cdot a, A \rightarrow Aa \cdot$
$A \rightarrow a$	$\{a\}$	$A \rightarrow \cdot a, A \rightarrow a \cdot$
$B \rightarrow bBa$	$\{Ab^i Ba, i \geq 0\}$	$B \rightarrow \cdot bBa, B \rightarrow b \cdot Ba, B \rightarrow bB \cdot a, B \rightarrow bBa \cdot$
$B \rightarrow ba$	$\{Ab^i ba, i \geq 0\}$	$B \rightarrow \cdot ba, B \rightarrow b \cdot a, B \rightarrow ba \cdot$

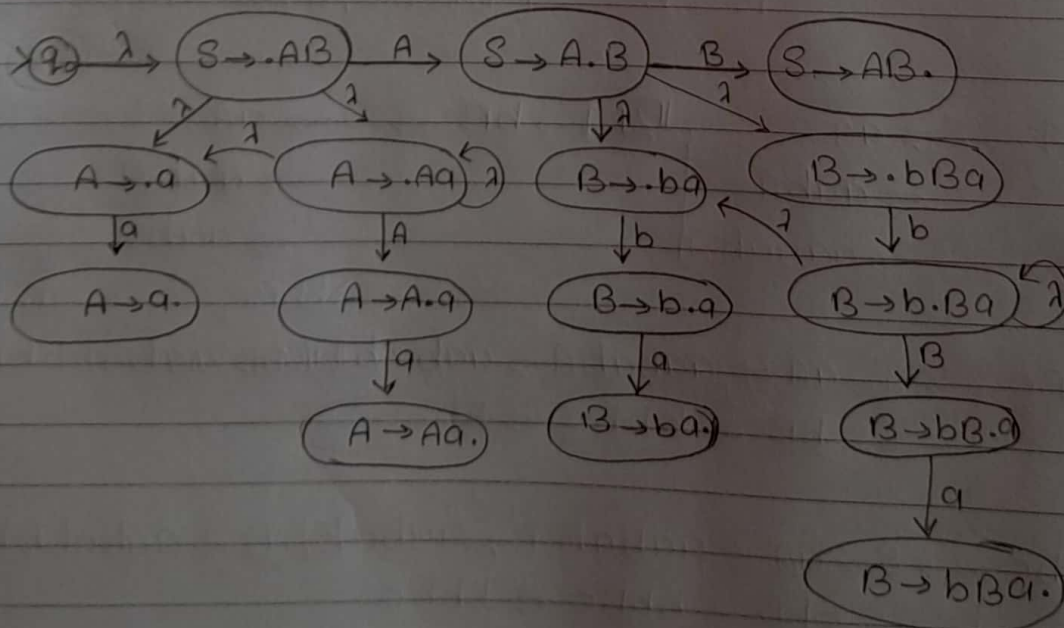
1.  $B \rightarrow bBa \rightarrow S \Rightarrow AB$

$\Rightarrow AbBa$   
 $\Rightarrow Abba$

2.  $B \rightarrow ba \rightarrow S \Rightarrow AB$

$\Rightarrow AbBa$   
 $\Rightarrow Abba$

⇒ Non-Deterministic :-



Notes:-

(i) we move with dotted letter  $\rightarrow A \rightarrow \cdot B \xrightarrow{B} A \rightarrow B \cdot$

(ii) check if B has any rules and calculate num of them to draw the diagram  $\rightarrow B \rightarrow \cdot b B, B \rightarrow \cdot b$

