

Q. 2.999

b) Show L_{reg} is CFL

$$S \rightarrow \epsilon \mid (S) \mid \epsilon \mid 0^* S \mid 1^* S \mid (S \cup S) \mid (S \circ S) \mid \emptyset S \mid S S$$

c) Show L_{CFG}

$$\begin{aligned} \langle CFG \rangle &\rightarrow \{ \langle Rules \rangle \} \\ \langle Rules \rangle &\rightarrow \langle Rule \rangle \mid \langle Rule \rangle, \langle String \rangle \\ \langle Rule \rangle &\rightarrow \langle \langle Name \rangle \rangle \Rightarrow \langle String \rangle \end{aligned}$$