

Name: TRIDIB SARKAR

Section: F

ID : 22-46444-1

Given,

$$E \rightarrow TE'$$

$$E' \rightarrow +E \mid \epsilon$$

$$T \rightarrow FT'$$

$$T' \rightarrow T \mid \epsilon$$

$$F \rightarrow PF'$$

$$F' \rightarrow *F' \mid \epsilon$$

$$P \rightarrow (E) \mid a \mid b \mid ep$$

First and Follow sets:

$$\text{First}(E) = \{ (, a, b, ep \}$$

$$\text{First}(E') = \{ +, \epsilon \}$$

$$\text{First}(T) = \{ (, a, b, ep \}$$

$$\text{First}(T') = \{ (, a, b, ep, \epsilon \}$$

$$\text{First}(F) = \{ (, a, b, ep \}$$

$$\text{First}(F') = \{ *, \epsilon \}$$

$$\text{First}(P) = \{ (, a, b, ep \}$$

$$\text{Follow}(E) = \{ \$,) \}$$

$$\text{Follow}(E') = \{ \$,) \}$$

$$\text{Follow}(T) = \{ +, \$,) \}$$

$$\text{Follow}(T') = \{ +, \$,) \}$$

$$\text{Follow}(F) = \{ (, a, b, ep, +, \$,) \}$$

$$\text{Follow}(F') = \{ (, a, b, ep, +, \$,) \}$$

$$\text{Follow}(P) = \{ *, (, a, b, ep, +, \$,) \}$$

Parsing table:

	()	a	b	ep	+	*	\$
E	TE'		TE'	TE'	TE'			
E'		ε				TE		ε
T	FT'		FT'	FT'	FT'			
T'	T	ε	T	T	T	ε		ε
F	PF'		PF'	PF'	PF'			
F'	ε	ε	ε	ε	ε	ε	*F'	ε
P	(E)		a	b	ep			