

Final 3
33.1

a) aba input

$$(s, aba, e) \vdash_M (f, ba, e)$$

$$(s, aba, e) \vdash_M (s, aba, e) \vdash_M (s, a, aa) \vdash_M (s, e, aaa)$$

$$(s, aba, e) \vdash_M (s, ba, a) \vdash_M (s, a, aa) \vdash_M (f, e, aa)$$

b) aa input

$$(s, aa, e) \vdash_M (s, a, e) \vdash_M (s, e, aa)$$

abb input

$$(s, abb) \vdash_M (f, b, b, e)$$

$$(s, abb) \vdash_M (s, bb, a) \vdash_M (s, ba, a) \vdash_M (s, e, aaa)$$

aba, aa, abb kabul edilmez.

$$(s, baa, e) \vdash_M (s, aa, a) \vdash_M (f, a, a) \vdash_M (f, e, e)$$

$$(s, bab, e) \vdash_M (s, ab, a) \vdash_M (f, b, a) \vdash_M (f, e, e)$$

$$(s, baaaa, e) \vdash_M (s, aaaa, a) \vdash_M (s, aa, aa) \vdash_M (f, aa, aa) \vdash_M (f, a, a) \vdash_M (f, e, e)$$

{baa, bab ve baaaa $L(M)$ 'de.}33.2a) $M = (K, \Sigma, \Gamma, \Delta, s, F)$

$$K = \{s\} \quad \Gamma = \{L, \sqcup\}$$

$$\Sigma = \{L, \sqcup, \sqcap, \sqcup\} \quad F = \{q\}$$

$$\Delta = \{((q, e, q), ((q, \sqcup), (q, e))), ((q, \sqcap, e), (q, \sqcap)), ((q, \sqcup, \sqcup), (q, e))\}$$

b) $M = (K, \Sigma, \Gamma, \Delta, q, F); \Sigma = \{a, b\} \quad \Gamma = \{a\} \quad F = \{r\}$

$$K = \{q, r\}$$

$$\Delta = \{((q, a, e), (q, a, a)), ((q, a, e), (r, e)), ((r, b, a), (r, e))\}$$

c) $M = (K, \Sigma, \Gamma, \Delta, s, F):$

$$K = \{a, r\} \quad \Sigma = \{a, b\} \quad \Gamma = \{a, b\} \quad F = \{r\}$$

$$\Delta = \{((q, a, e), (q, a)), ((q, b, e), (a, b)), ((q, e, e), (r, e)), ((q, b, e), (r, e)), ((r, a, a), (r, e)), ((r, b, b), (r, e))\}$$

d) $M = (K, \Sigma, \Gamma, \Delta, s, F)$

$$K = \{q\} \quad \Gamma = \{A, a, b\} \quad \Sigma = \{a, b\} \quad F = \{q\}$$

$$\Delta = \{((q, a, e), (q, A)), ((q, b, e), (q, b)), ((q, a, b), (q, a)), ((q, b, a), (q, a)), ((q, a, a), (q, e))\}$$

13.4.1

$$M = (\{p, q\}, \{(), s\}, \{(), s\}, \Delta, p, \{a\})$$

$$\Delta = \{((p, e, e), (q, s)), ((q, e, s), (q, s)), ((q, e, s), (q, (s))), ((q, e, s), (q, e)), ((q, (s)), (q, e))\}$$

$$(p, (b)(), e) \vdash_M (q, (())(), s) \vdash_M (q, (())(), (s)) \vdash_M (q, (())(), s))$$

$$\vdash_M (q, (())(), (s) s)) \vdash_M (q, (())(), s) s))$$

$$\vdash_M (q, (())(), s)) \vdash_M (q, (())(), s))$$

$$\vdash_M (q, (())(), s)), \vdash_M (q, (())(), s))$$

$$\vdash_M (q, (())(), s)), \vdash_M (q, (())(), s))$$

$$\vdash_M (q, (())(), s)) \vdash_M (q, e, e)$$

