a)

$(\lambda x \lambda y \lambda m \lambda u.\, x\, m\, (y\, m\, u))\, (\lambda s \lambda z.\, s\,(s\, z))\, (\lambda a \lambda b.\, a\, b\,(ab))$

$(\lambda y \lambda m \lambda u.\, (\lambda s \lambda z.\, s\,(s\, z))\, m\, (y\, m\, u))\, (\lambda a \lambda b.\, a\,(a\,(ab)))$

$(\lambda y \lambda m \lambda u.\, (\lambda z.\, m\,(m\, z))\, (y\, m\, u))\, (\lambda a \lambda b.\, a\,(a\,(ab)))$

$(\lambda y \lambda m \lambda u.\, (m\,(m\,(y\, m\, u))))\, (\lambda a \lambda b.\, a\,(a\,(ab)))$

$(\lambda m \lambda u\, (m\,(m\,((\lambda a \lambda b.\, a\,(a\,(ab)))\, m\, u))))$

$(\lambda m \lambda u\, (m\,(m\,((\lambda b.\, m\,(m\,(m\, b)))\, u))))$

$(\lambda m \lambda u\, (m\,(m\,((m\,(m\,(m\, u)))))))$

b)

$(\lambda x \lambda y \lambda m \lambda u . x (y\, m)\, u)\, (\lambda s \lambda z . s(s\, z))(\lambda a \lambda b . a(a(ab)))$

$(\lambda y \lambda m \lambda u . (\lambda s \lambda z . s(s\, z))(y\, m)\, u)\, (\lambda a \lambda b . a(a(ab)))$

$(\lambda y \lambda m \lambda u . (\lambda z . (y\, m)((y\, m)\, z))\, u)\, (\lambda a \lambda b . a(a(ab)))$

$(\lambda y \lambda m \lambda u . (y\, m((y\, m)\, u)))\, (\lambda a \lambda b . a(a(ab)))$

$(\lambda m \lambda u . ((\lambda a \lambda b . a(a(ab)))\, m\, (((\lambda a \lambda b . a(a(ab)))\, m)\, u)))$

$(\lambda m \lambda u . ((\lambda b . m(m(mb)))\, ((\lambda b . m(m(mb)))\, m)))$

$(\lambda m \lambda u . ((\lambda b . m(m(mb)))\, ((m(m(m\, u))))))$

$(\lambda m \lambda u . ((m(m(m(m(m(m\, u))))))))$