THEORY OF AUTOMATA AND FORMAL LANGUAGES
(BCSC0011)
Module-2
Practice Sheet-2

Ques. 1 Convert the given CFG to CNF. Consider the given grammar G1:

S → a | aA | B

A → aBB | ε

B → Aa | b

Ques. 2 Are the grammar G1 and G2 satisfy the following rule of CNF.

1. G1 = {S → AB, S → c, A → a, B → b}
2. G2 = {S → aA, A → a, B → c}

Ques. 3 Remove useless symbol from the given production.

S->aAa|bBb| ε

A->C|a

B->C|b

C->CDE| ε

D->A|B|ab

Ques. 4 Remove the useless symbol from the given context free grammar:
S -> aB / bX
A -> Bad / bSX / a
B -> aSB / bBX
X -> SBD / aBx / ad