

Instructions:

Write your name and roll no on every page.

Write the set no. on top of the answer script.

Attach scanned copy of each page of your answer script to the email.

Send the answer script to the email address

nandini.mukhopadhyay@jadavpuruniversity.in

with subject line

BCSE-CT-<your roll no>

SET – 2128

1. Construct a DFA for the following regular expression:

$a^* (a \mid b) a a$

2. Consider the following grammar:

$\text{tuple} \rightarrow (\text{list})$

$\text{list} \rightarrow \text{list } a$

$\text{list} \rightarrow a$

Start symbol is 'tuple'.

(a) It is a left-recursive grammar. Remove left-recursion and compute FIRST and FOLLOW sets of the modified grammar.

(b) Write at least two strings generated from this grammar. Show their rightmost derivation using the original grammar. At each step show the handle of the derivation.

(c) Construct LR(0) item set. Construct the SLR parsing table.

$$8+6+(2+6+8)=30$$