Indian Institute of Engineering Science and Technology, Shibpur
B.Tech(IT) 6ᵗʰ Semester Mid Semester Examinations, March 2022
Compiler Design (IT 3201)
Full Marks: 30   Time: 45 Minutes
Write your ID, Name and page number on each separate page. Each question caries 10 marks. Attempt any three questions. Upload the answer scripts sequentially

(Attempt all questions)

1. Construct LL(1) parsing table for the following grammar specifically mentioning the First and Follow of the grammar symbols.
   S → BA
   A →aBA | ε
   B→ DC
   C→ bDC | ε
   D → [S] | p

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2. Lexical analysis uses double buffering technique. What will be the benefits or drawbacks if the buffer as a whole is used except dividing it into two parts? Explain also the benefits or drawbacks if the division is increased to 3, 4…n.

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3. Convert the regular expression of
   Set of languages of any combination of '0' and '1' containing atleast one double symbol.
   directly into DFA. (Not converting it to NFA)
   [Note: double symbol means 00 or 11]

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