

ToC Assignment 4

For the sets of languages RE and R establish closure properties w.r.t. operations

1. Union,
2. Intersection,
3. Complementation,
4. Concatenation, and
5. Star operation.

Give formal proof if the property holds; else give a counter example (this you should do for each property). You may give intuitive simple examples to highlight your answers.

Guidelines:

Submit a typed (not handwritten) document in PDF format. You can prepare your document using MS Word or any other document preparation software, but submit only PDF document. **Note, these documents will be checked for plagiarism using some automated tools (this is the reason for asking for digital documents in PDF format).** Copying, even from Internet or books can get negative marks for you. Copying is verified against your classmate's submissions also.

For any figures, you like to include, prepare them using proper software (i.e., do not use hand-drawings over paper which is scanned).

Your document should be of maximum 4 pages. The concise, precise the document is, the better your submission is.

Put your roll number, name, date and appropriate title.

Deadline: 19th April 2020, 5pm.