

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)

CLASS: MSc  
BRANCH: CHEMISTRY

SEMESTER : I  
SESSION : MO/19

SUBJECT: CH403 REACTION MECHANISM IN ORGANIC CHEMISTRY

TIME: 3:00 HOURS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1 Write short notes on. [5+5]  
(a) Mesomeric effect  
(b) Hyperconjugative effect.
- Q.2(a) What are the criteria for Aromaticity? [5]  
Q.2(b) What is Huckels rule? [5]
- Q.3(a) Write SN<sup>1</sup> and SN<sup>2</sup> reactions. [10]
- Q.4(a) Write a mechanism for E<sub>2</sub>, E<sub>1</sub> and E<sub>1c</sub>B reactions with an example. [5]  
Q.4(b) Write short note on Perkin reaction with an example. [5]
- Q.5(a) Discuss Pinacol - Pinacolone rearrangement with an example. [5]  
Q.5(b) Draw a reaction mechanism for Wolff & Arndst ester synthesis. [5]

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