# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

## Mid Semester Examination

March 2019

Max.Marks: 20

Class: S.E.

Course Code: EL43

Name of the Course: Computer Organization and Architecture

Duration: 60 Min

Semester: IV

Branch: Electronics

**Instruction:**

(1) All questions are compulsory

(2) Draw neat diagrams

(3) Assume suitable data if necessary

| Q No. | | Max. Marks | CO |
|-------|------------------------------------------------------------------------------------------------------------------|------------|------|
| Q.1 | A) Perform - (12) x (3) using booths algorithm <br> Or <br> B) Calculate (31) / (7) using non restoring division algorithm | 05 | CO2 |
| Q.2 | Explain Driving factors behind the need to design for performance | 05 | CO1 |
| Q.3 | A) Differentiate between Von Neumann and Harvard Architecture <br> Or <br> B) Draw and explain ARM architecture | 05 | CO1 |
| Q.4 | With help of neat diagram explain 1 bit memory cell and calculate number of external connections required for 64Kilo bytes Memory | 05 | CO4 |