

OCTOBER 2018/IN-SEM (T1)

S. Y. B. TECH. (E&TC) (SEMESTER - I)

COURSE NAME: Digital Electronics

COURSE CODE: ETUA21175

Paper Code - U218-135 (T1)

(PATTERN 2017)

Marking Scheme

| Q.NO | Sub Q.NO | Marking Scheme                                                           | Marks | Difficulty Level | Cognitive level | CO Mapped |
|------|----------|--------------------------------------------------------------------------|-------|------------------|-----------------|-----------|
| Q1   | a)       | $Y = ABC\bar{D} + \bar{A}\bar{B} + \bar{B}\bar{C} + \bar{A}D + \bar{B}D$ | [6]   | H                | Applying        | CO1       |
|      | b)       | $Y = \bar{C} + \bar{A}B$                                                 | [6]   | M                | Applying        | CO1       |
|      | c)       | Logic diagram: 2M<br>Explanation :2M                                     | [4]   | L                | Analysing       | CO1       |
| OR   |          |                                                                          |       |                  |                 |           |
| Q2   | a)       | $Y = \bar{B}\bar{C} + CD$                                                | [6]   | H                | Applying        | CO1       |
|      | b)       | $Y = D.\bar{B} : 6M$                                                     | [6]   | M                | Applying        | CO1       |
|      | c)       | Truth Table: 2M<br>Logic Diagram: 2M                                     | [4]   | L                | Analysing       | CO1       |
| OR   |          |                                                                          |       |                  |                 |           |
| Q3   | a)       | Truth Table: 2M<br>K-map: 2M<br>Logic Diagram: 2M                        | [6]   | M                | Analysing       | CO2       |
|      | b)       | Truth Table: 2M<br>Logic Diagram: 2M                                     | [4]   | L                | Applying        | CO2       |
|      | c)       | Truth Table: 2M<br>Logic Diagram: 2M                                     | [4]   | L                | Applying        | CO2       |
| OR   |          |                                                                          |       |                  |                 |           |
| Q4   | a)       | Truth Table: 3M<br>Logic Diagram: 3M                                     | [6]   | M                | Applying        | CO2       |
|      | b)       | Propagation delay = 200 ns : 4M                                          | [4]   | L                | Analysing       | CO2       |
|      | c)       | Truth Table : 2M<br>Logic Diagram: 2M                                    | [4]   | L                | Applying        | CO2       |