

## **2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.**

Action verbs of revised Bloom's Taxonomy will be used in preparation and assessment. Attainment of outcomes is evaluated through 20% indirect assessment and 80% direct assessment whereas CO attainment will be calculated based on direct assessment. Mapping of COs and POs are considered at three levels, above 80% mapping is taken as 'High'; 55%-80% mapping as 'Medium', less than 55% as 'Low'.

### **Indirect assessment**

- Feedback from different stakeholders, through surveys and exit feedback.
- Feedback will be collected on 3-point scale.

### **Direct assessment**

- Direct assessment will be carried out as per the guidelines prescribed by the affiliating university, JNTUK.
- Direct assessment is divided as internal examinations for 30 marks and external examinations for 70 marks.
- Internal examinations/assessment will be conducted at college level for all theory courses and divided into components of 15 marks for descriptive, 10 marks for online quiz and 5 marks for assignments, comprising a total of 30 marks. Internal examinations will be conducted twice in a semester and awarded by considering weightage of 80% of best score and 20% of least score.
- Internal examinations/assessment will be conducted at college level for all laboratory courses and conducted once in a semester for 25 marks based on the day-to-day performance in the laboratories.
- External examinations will be conducted by the University for 70 marks for all theory courses and 50 marks for all laboratory courses, at the end of the semester.
- Results of internal and external examinations will be taken as input for the calculation of attainment.

### **Evaluation of attainment of POs and COs**

- 1) A threshold is set to assess the students' performance based on the result of previous academic year for the course (Assumed threshold is 50%)
- 2) Total marks from each component is calculated (Assume it as R1)
- 3) Calculate no. of students attempted the exam (Assume it as R2)
- 4) Calculate weighted Average marks using (Average Marks  $R3 = R1/R2$ )
- 5) Find number of students on or above threshold ( $R4 = (R3 > \text{Target Marks})$ )
- 6) Attainment achieved by students ( $R5$  is Average of Mid-I and Mid-II)
- 7) Calculate % of students attained:  $M = R5/R2$
- 8) Repeat the same procedure for Assignment(A) and Quiz(Q).
- 9) Calculate the CO attainment as  $(0.15 * M + 0.1 * Q + 0.05 * A)$