

## 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  $(0.15 * M + 0.1 * Q + 0.05 * A)$