Annexure to Circular

**Step by Step Process of implementing Outcome Based Education**

- Framing Program Educational Objectives (Not more than 5) which are attainable by students between 3-5 years after graduation
- Framing Program Outcomes (a to k of ABET and two to three program specific outcomes based on ABET Program Criteria)
- Framing the Curriculum Structure by Mapping the Courses identified under various heads vis-a-vis Basic Sciences, Engineering Sciences, Professional Core, Professional Electives, General Courses, Skill Set Courses, Value addition courses and University Electives
- Developing Course wise the following:
  - Course Objective
  - Course Rationale
  - Course Outcomes (not more than four or five depending on the depth and nature of the course)
  - Course Outcome Indicators (the sub-outcomes under each course outcome)
  - Mapping Course Outcomes to Program Outcomes at appropriate levels of Bloom’s Taxonomy (Level 1: Knowledge & Understanding, Level 2: Application & Analysis, Level 3: Evaluation and Creativity / Critical Thinking)
  - Mapping of Course Outcome Indicator with Course Outcomes at appropriate level of Bloom’s Taxonomy
  - Defining the best suited Teaching-Learning Styles for each course outcome indicator
  - Restructuring the topics / content of the course syllabus to fall under appropriate heads of each Course Outcome and in turn under each Course Outcome Indicator.
  - Preparing the Session wise Delivery Plan, based on the Teaching-Learning styles identified for each Course Outcome Indicator against each topic of the syllabus.
  - Defining Evaluation procedure under each topic appropriate enough to measure the learning of the students based on the level of Bloom’s Taxonomy and its mapped Course Outcome Indicators, Course Outcomes.
  - Undertaking Assessment of Students’ learning after each evaluation component, to measure the nature and level of learning taking place at level of each student in each course, and thereby proposing remedial measures to increase the learning process of each student.
Undertaking Course Assessment at the end of each course, and finding out the strengths and shortfalls of the learning taken place, proposing necessary changes in Teaching-Learning Process, Course Content, Topics of the course and implementing them back into the curriculum whenever next, this course if offered.

• At Program level, undertaken the Assessment of the Program’s delivery at the end of each semester, by taking course assessment reports from each course Instruction team, and identify the levels of expectations fixed, level of learning actually took place and the gaps therein. Thereby propose necessary remedial actions to fill the gap in regard to each course and each student of the course. Also hereunder, suitable changes in teaching-learning process for each course under each semester of the program will be prepared to be dealt from immediate next semester onwards.

• Assess the attainment of Program Education Objectives between 3 to 5 years of graduation for every batch of students and propose suitable changes in delivery methodology for the program and undertake the reformation in entire process listed out as above.