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Office of Principal

Outcome Board Education (OBE) Manual

The Outcome Based Educational Manual has been uploaded to the AIT website. All Heads of Department are requested to inform all faculties in the department to make use of OBE manual for Teaching-Learning, Assessment, evaluation, Rubrics (Assignments, Seminars, mini projects, Tutorials, projects etc.), GAP Analysis and all types of feedbacks.

OBE manual is available at the following link on AIT website under Academics – Outcomes Based Education.

https://www.aitpune.com/Documents/OBE_12oct2021.pdf

(Dr. B. P. Patil)

Principal

Copy to-

Director
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Army Institute of Technology

Internal Academic Advisory Committee

Quality Manual for Academic Planning and Monitoring

Year 2020-21

VISION

To become a "Globally Recognised" technical institute providing world class education and research facilities to the wards of Defence personnel.

MISSION

- Provide the right environment, to the wards of Defence personnel, for development of physical, intellectual, emotional and spiritual quotients, with a view to produce total quality engineers.
- Create an ecosystem which can foster the culture of research, innovation, creative thinking and higher studies.
- Develop an education system which creates entrepreneurs and technology leaders who are committed towards sustainable development of society and nation building.

CORE VALUES

Excellence, Honesty, Integrity, Team Work, Continuous Learning And Innovation

PROGRAM OUTCOMES

PO1 - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.

PO2 – Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 - Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

PO4 - Conduct investigations of complex problems: Use research -based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.

PO6 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 - Communication: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

OUTCOME BASED EDUCATION

Outcome based education (OBE) is student-centric instruction model that focuses on measuring student performance through outcomes. Outcomes include knowledge, skills and attitudes. Its focus remains on evaluation of outcomes of the program by stating the knowledge, skill and behaviour a graduate is expected to attain upon completion of a program and after 4 – 5 years of graduation.

Outcome Based Education (OBE) is a method of curriculum design and teaching that focuses on what students can actually do after they are taught. OBE's instructional planning process is a reverse of that associated with TE (Traditional Education) planning. The desired outcome is selected first and the curriculum, instructional materials and assessments are created to support the intended outcome. All educational decisions are made based on how best to facilitate the desired outcomes.Program Outcomes are essentially a range of skills and knowledge that a student will have at the time of graduation.

OBJECTIVES OF OBE

- Enable Students to do more challenging tasks:write project proposals, complete projects, analyse case studies, give case presentations, show their abilities to think, question, research, and make decisions based on the findings.
- Enable prospective students, parents, employers and others to understand the nature and level of learning outcomes (knowledge, skills, attitudes and values) or attributes a graduate of a programme should be
  capable of demonstrating on successful completion of the programme of study.
- Maintain national standards and international comparability of learning outcomes and academic standards to ensure global competitiveness, and to facilitate student/graduate mobility.

- Provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and periodic review of programmes and academic standards.

FRAMING COMMON POLICY FOR OBE IN INSTITUTE

Outcome-Based Education (OBE) is a student-centric learning model that helps teachers to plan the course delivery and assessment.

- Define Mission statements, Vision statements for the Institute and department
- Define Program Educational Objectives
- Prepare lecture-wise Course Lesson Plan
- Define Course Objectives
- Define Course Outcomes with Bloom's Taxonomy for each course
- Define pedagogical tools for course outcomes delivery
- Map topics with Course outcomes
- Use Learning Management Tool such as Moodle for Assignments, Quizzes, Content beyond syllabus coverage, Tests, course feedback etc.
- Define rubrics for Tutorial, Practical, seminar, Mini Project, Final year Project
- Measure the attainment of each CO through Direct/Indirect assessments
- Track students performance
- Map courses with Program outcomes at suitable levels of Bloom's Taxonomy
- Identify Gaps in the Curriculum and adopt suitable measures to bridge the Gap
- Compare PO/PSO for last 3 academic years and propose remedial actions
- Assess the attainment of Program Educational Objectives

DRAFTING METHODOLOGY FOR IMPLEMENTATION OF OBE

Some important aspects of the Outcome Based Education:

Course is defined as a theory, practical or theory cum practical subject studied in a semester. For Eg. Engineering Mathematics

Programme is defined as the specialization or discipline of a Degree. It is the interconnected arrangement of courses, co-curricular and extracurricular activities to accomplish predetermined objectives leading to the awarding of a degree. For Example: B.E., Marine Engineering.

A few parameters that are required in order to measure Outcome-Based Education are: Course Outcome (CO):COs are major domain specific outcomes written using action verbs which are specific, measurable and can be demonstrated by students on completion of the course. Course outcomes are statements that describe significant and essential learning that learners have achieved, and can reliably demonstrate at the end of a course. Generally six or more course outcomes may be specified for each course based on its weightage. Course outcomes are the measurable parameters which evaluates each students performance for each course that the student undertakes in every semester.

Program Educational Objectives (PEOs): The Programme Educational Objectives of a program are the statements that describe the expected achievements of graduates in their career, and also in particular, what the graduates are expected to perform and achieve during the first few years after graduation. PEOs should be consistent with the mission of the Institution. The PEO's should evolve through constant feedback from alumni, students, industry, management etc,.

Programme Specific Outcomes (PSO) : Programme Specific Outcomes are what the students should be able to do at the time of graduation with reference to a specific discipline. Usually there are two to four PSOs for a programme.

Programme Outcomes: Program outcomes are narrower statements that describe what students are expected to know and be able to do by the time of graduation. They must reflect the 12 Graduate attributes as described by NBA for under graduate engineeering

programs.

Define PEO, PO, PSO and CO. This is the most important part of the Outcome-Based Education model. Course Outcomes (CO) are defined for all courses and Program Outcomes (PO)/Program Specific Outcomes (PSO) are measured for all programs in the institution. Course Outcome remains the base of the hierarchy of outcomes and is the tools that can be used to measure student performance in each course.

THE VARIOUS STEPS TO BE USED FOR IMPLEMENTATION OF OBE IN INSTITUTE

1. Establishing Vision and Mission statements and Program Educational Objectives

Establishing the visiomission statement of any institute should be the first and foremost step when implementing OBE. The statement should be futuristic and the mission should help achieve the Program Educational Objectives (PEO).To achieve this, various surveys could be used.

Employer survey

Student survey

Alumni survey

Student Exit survey

Parent / Guardian survey

2. Mapping Mission statements with Program Educational Objectives

The program educational objectives should fall in line with the Mission statements.

3. Defining Course Objectives for each course

Designing the Course Objectives keeping in mind the specific learner group is essential for a successful implementation of OBE. It is essential to check if those course objectives are met during the tenure of the course.

4. Defining Course outcomes with Bloom's Taxonomy and Threshold for each course

Completely measurable and observable, it has to be aligned with Bloom's Taxonomy objectives (Fig. 1) for an effective learning environment.

5. Defining Outcomes

Define Course Outcome (CO) and Program Outcome (PO) and Program Specific Outcome(PSO)

6. Measure CO attainment

The Course Outcome (CO) is measured through the performance of students in the various assessments tools for the particular course. Each evaluation tool is mapped to a particular Course outcome (CO) or an action verb in bloom's taxonomy.

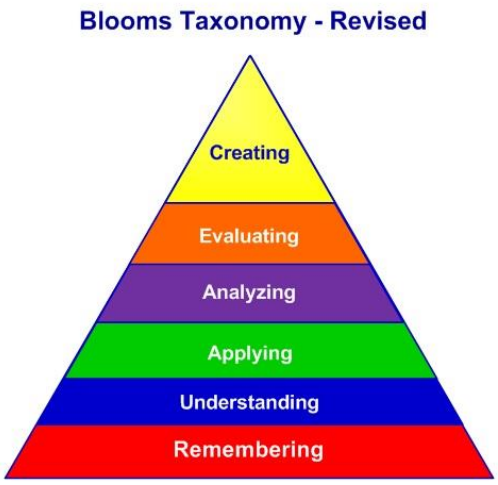

Fig. 1: Revised Blooms's Taxonomy

(6.1) Internal Assessment tools

The various internal assessment tools for different subjects are decided and mapped to various action verbs so that they help to measure the performance of students.A sample mapping of internal evaluation metrics to the measured verb is given in Table 1.

(6.2) Internal assessment tests and Assignments

As per OBE, each question in the internal assessment tests and assignments allows the teacher to measure a particular CO of student performance and hence the performance of students in each question must be monitored to measure the attainment of CO.

(6.3) Define Pedagogical tools for each course outcomes delivery

Use various pedagogical tools to measure COs. Defining pedagogical tools while teaching subjects add to the learning effectiveness depending upon the profile of the learner.

(6.4) Mapping Questions with Course Outcomes at appropriate levels of Bloom's Taxonomy and maps it with assessments

Ensure to frame questions using Bloom's Taxonomy verbs (both during class test and written assignments) from the Knowledge, Comprehension, Application, Analyze, Synthesis, and Evaluation levels of taxonomy pyramid.

Table 1: Evaluation Tools

Sr. No	Evaluation Tools	Bloom's Txonomy verbs
1	Quiz	Remember
2	Class Presentation/Seminar	Understand
3	Technical Presentation/Demonstration	Apply
4	Survey	Analyze
4	Group assignment	Evaluate
5	Mini Project	Create

(6.5) Define rubrics for activities such as Seminar, Mini project, final year project, Lab assignment etc.

Appropriate enough to measure the learning of the students based on the level of Bloom's Taxonomy .Rubrics should cater to the different levels of learners, should measure their capabilities, and should be mapped with the course outcomes. Once the marks of each student in internal assessment tests and assignments and other internal evaluation metrics are entered, the CO attainment can be measured for each class.

Reference: Excel sheet in Appendix B

7. Measuring the performance of the students

After each Assessment component, measure the performance of the students and thereby proposing remedial measures to increase the learning process of each student.

8. Measuring performance of the students against Course Outcomes threshold for each course

Finding out the strengths and shortfalls of the learning taking place, proposing necessary changes in Teaching-Learning Process, Course Content, Topics of the course.

9. Measuring PO and PSO attainment

Once the Course Outcome is measured, the program outcome can be measured by using a CO-PO, CO-PSO matrix. Measure the attainment of each Program Outcomes through Direct and Indirect assessments. This helps the institution to measure the Program Outcome through the performance of students in each course. The weightage of mapping of each CO with the relevant PO and PSO can be specified. Once the weightage and mapping of the CO-PO, CO-PSO are over the program outcome can be evaluated.

10. Measuring the performance of the students against the PO threshold for each semester

This can be attained by taking course outcomes 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.

11. Comparing Program Outcomes attainment for the last 3 academic years and propose remedial actions

12. Assess the attainment of Program Educational Objectives between 3 to 5 years of graduation for every batch of students and propose suitable changes.

Working with the educational objectives obtained from 3-5 years of students and further investigating for betterment helps to achieve the trends in education.

METHODOLOGY TO IDENTIFY GAPS

The CO-PO and CO-PSO mapping gives a clear idea about the Gaps in the course and Programme. The format given below is used to identify the Gaps.

Gap analysis: Example: The set target level for PO and PSO is 1.5

Gap Analysis

Name of Faculty:	Department:
Class and Course:	Semester:
Subject:	Subject Code:

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1.60	1.60	1.60	1.60	1.60	1.51	1.52	1.56	1.51	0.36	0.80	1.53

Sr No	**Gap**	**Relevance with PO**	**Action taken**
1	Communication	PO 10	TE Seminar Preparation of report and presentation using PPT
2	Project management and finance	PO 11	BE Project Evaluation of cost of materials, machining etc. and executing plane of manufacturing.

Identifying Curricular Gaps and Implementation of Strategy to Bridge the Gaps

Name of Faculty :	Department:
Class and Course:	Semester and Academic Year:
Subject:	Subject Code:

A) Procedure to Identify Gaps in Curricular

- Result analysis of courses with Program Outcomes (PO) for theory and practicals. e.g.

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1.60	1.60	1.60	1.60	1.60	1.51	1.52	1.56	1.51	0.36	0.80	1.53

- Result analysis of courses with Program Specific Outcome (PSO) for theory and practical's e.g.

PSO1	PSO2	PSO3
1.60	1.42	1.24

- Enlist PSO that is not addressed at all by university curricula? If yes, provide the modify POS at department level and map this PSO with this course.
- Enlist the gaps identified by alumni/exit students/employers/industry based on feedbacks taken from concern in COs.
- Enlist the major gaps identified for this course based on (c) and (d) above with the university curricula?
- Suggest the suggestions and or modifications in curriculum and report it to the BOS chairman of university for next revision through proper channel.
- Addition of some of the gaps identified in the course (e) in curriculum under contents beyond syllabus.
- Implement best practices adopted by other departments in your institution as well as other institutions offering same program?

B) Measures to Bridge the Gap Between Academia and Industry

- ❑ Alignment of curriculum with industry requirements
- ❑ Designing lab manuals to promote skill-based education
- ❑ Promote policies to increase workplace exposure to students through internships, live projects, and corporate interactions such as guest lectures, industrial visits and industry sponsored projects.
- ❑ Promote policies to Up-skilling the faculty through seminar, workshops, conferences, industrial training and sponsoring for higher studies.

Evaluation Sheet for Implementation of Curricular Gaps

I) Evaluation sheet for Identifying curricular gaps and implementation of strategy at subject teacher level

Name of Faculty :	Department:
Class and Course:	Semester and Academic Year:
Subject:	Subject Code:

1) Lesson plans for this course is available.
   a) Yes b) No
2) The laboratory manual for this course is available.
   a) Yes b) No
3) The updated faculty Course file is available.
   a) Yes b) No
4) Mapping of the curriculum with POs is available.
   a) Yes b) No
5) Mapping of the curriculum with PSOs is available.
   a) Yes b) No
6) Computation of the attainment of Cos is available.
   a) Yes b) No
7) Computation of the attainment of Cos is available.
   a) Yes b) No
8) Computation of the attainment of POs is available.
   a) Yes b)No
9) Computation of the attainment of PSOs is available.
   a) Yes b) No
10) Attainment level of Cos is good.
   a) Strongly agree b) Agree c) Fairly agree d) Disagree

11) Attainment level of POs is good.

b) Strongly agree b) Agree c) Fairly agree d) Disagree

12) Attainment level of PSOs is good.

c) Strongly agree b) Agree c) Fairly agree d) Disagree

13) Attainment of curriculum with industry requirements is satisfactory.

a) Strongly agree b) Agree c) Fairly agree d) Disagree

14) Alignment of curriculum with industry requirements is satisfactory.

a) Strongly agree b) Agree c) Fairly agree d) Disagree

15) Level of attempt made for implementation of skill based education and content beyond syllabus.

a) Strongly satisfactory b) Satisfactory c) Not satisfactory

Evaluation Sheet for Implementation of Curricular Gaps

II) Evaluation sheet for Identifying curricular gaps and implementation of strategy at departmental level

Name of HOD :	Department:
Class and Course:	Semester and Academic Year:
Subject:	Subject Code:

1) Guest lectures related to this course are arranged.
   a) Strongly agree b) Agree c) Fairly agree d) Disagree
2) Industrial visits related to this course are arranged.
   a) Strongly agree b) Agree c) Fairly agree d) Disagree
3) Adequate numbers of students are allowed for internships.
   a) Strongly agree b) Agree c) Fairly agree d) Disagree
4) Adequate numbers of students are allowed to do projects/mini projects (sponsored/in house).
   a) Strongly agree b) Agree c) Fairly agree d) Disagree

Evaluation Sheet for Implementation of Curricular Gaps

III) Evaluation sheet for Identifying curricular gaps and implementation of strategy at Institute level

Name of Head of Institute :	Department:
Class and Course:	Semester and Academic Year:
Subject:	Subject Code:

- Numbers of faculty sponsored for attending seminar and workshops

  a)One b) Two c) Three d) More than three
- Numbers of faculty sponsored for attending conferences and industrial training.

  a) One b) Two c) Three d) More than three
- Numbers of faculty sponsored for higher studies.

  a)One b) Two c) Three d) More than three
- Numbers of Policies revised for promoting and motivating faculty for Skilling up gradation through seminar, workshops, conferences, industrial training and sponsorship for higher studies.

  a)One b) Two c) Three d) More than three

THE METHODOLOGY/GUIDELINES TO BE USED BY THE FACULTY FOR IMPLEMENTATION OF OBE

The guidelines for the academic year 2020-21:

- The PO and PSO attainment level - 1.7 (The target level of PO attainment for the year 2019-20 was 1.6)
- The implementation Table is as given in Fig. 2.
- To have Questionwise CO mapping for Internal assessment
- To use the MS Office Excel sheet for the PO and PSO attainment (Ref: Appendix B)
- To conduct two tests and two Assignments per subject per semester. (Ref: Appendix A)
- To use rubrics evaluation of Practical, Internal assessment, project, Seminar etc. (Ref: Appendix A)
- Attainment level rules:

Attainment level	Rules
1	60 of students score 60% and above
2	70 of students score 60% and above
3	80 % of students score 60% and above

- Every subject to have 1-2 additional experiments beyond syllabus
- To conduct workshops/seminars/Guest lectures to fill the course gap
- To introduce LMS such as Moodle
- To incorporate ICT and Pedagogical tools to ensure the implementation of OBE of course
- To carry out Gap Analysis at the end of semester for every subject and the Programme and to take measures to bridge the Gaps

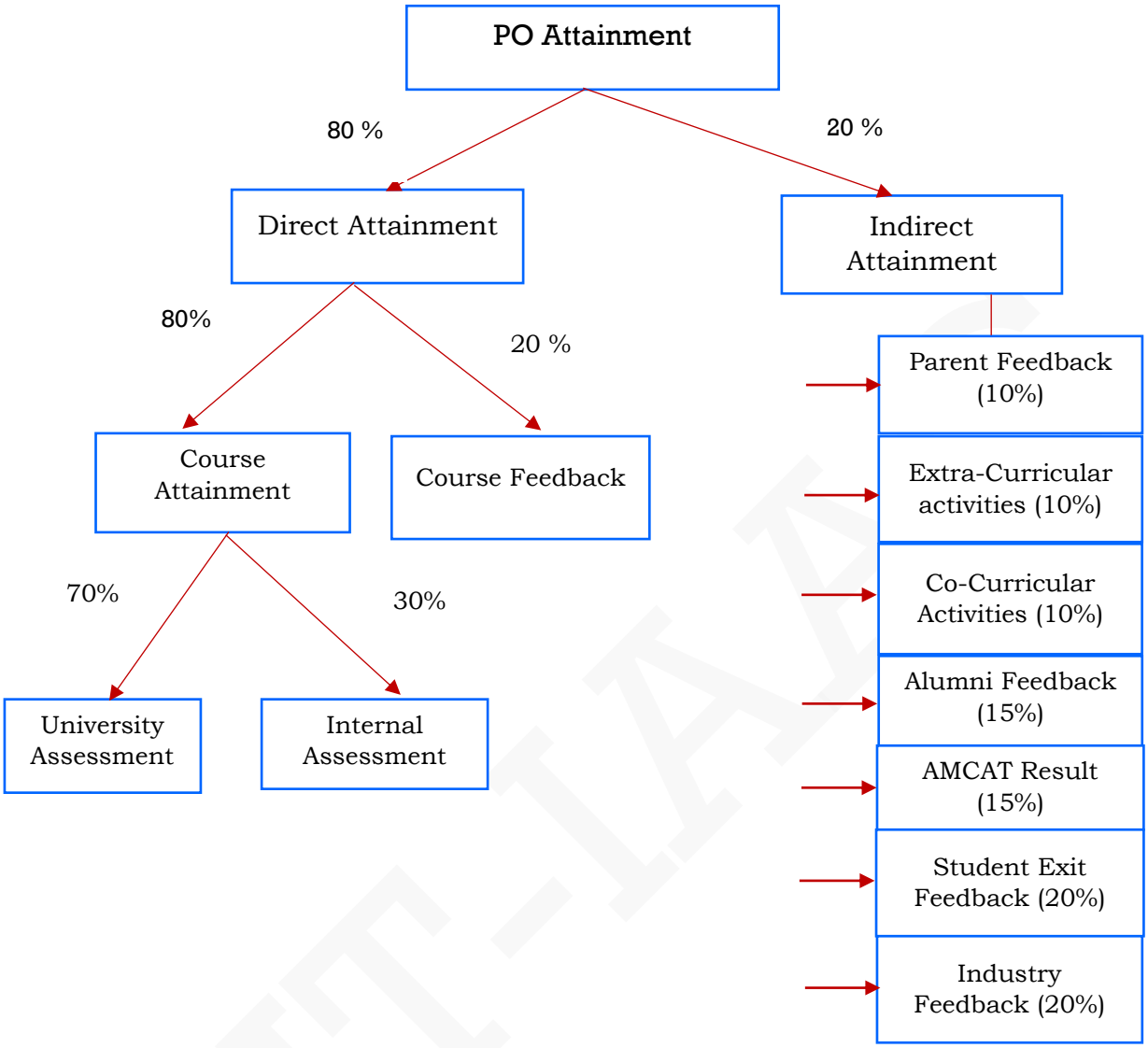

Fig 2: PO-PSO attainment

INCLUSION OF ETHICS AT VARIOUS LEVELS

1.1 Student Admission -

- Admission to the institute will be carried out strictly as per merit in a fair and just manner. It will be ensured that the admissions will be carried out as the criteria and procedure spelt out in the admission brochure and displayed on institute website.

1.2 Ethics in teaching and learning -

- Faculty members should aim for the highest quality in their course content and teaching methodology.
- The assessment procedure should be made clear to students at the outset.
- During evaluation of projects, seminars, presentations, care must be taken to avoid introducing extraneous considerations.
- Sensitive student-related issues including records and communications should be shared only out of academic necessity and only with the appropriate persons.
- The dignity of the classroom or laboratory environment must be maintained at all times.
- Cheating in exams, use of unauthorized material, stealing from another student or another source is never acceptable.
- In research projects, the Guide should monitor the procedures and guide the students in recording data and compiling results.
- Every institution must have fair procedures for proper use and sharing of equipment and facilities.
- Students, should aim to study each course with complete honesty as well as a sincere effort to participate and learn.
- Assignments, tests, exams and related activities must be carried out strictly in accordance with the provided guidelines.
- Through their own actions, mentors must communicate positive ethical values and professionalism to their students.

1.3 Ethics in Research and publication -

- Experimental results should be presented correctly and honestly.
- Data manipulation, like adding or subtracting data points at will, editing images to produce a false result, creating images artificially and presenting them as data or using the same figure or table to describe different experiments is unacceptable.
- Data fraud should be considered as a very serious offence as it harms the image of the entire community and country.
- The list of authors in research papers, reviews, books, monographs or policy documents should not be manipulated to give undue credit to those who have not contributed (``honorary authorship"), or deny credit to those who have contributed sufficiently.
- Publications should be made only in UGC approved list of journals.
- Plagiarism is the practice of using ideas/words/data from other sources, in a manner that conveys a false impression that they are original. Plagiarism is relevant not only for published papers but also project reports, textbooks and grant proposals. Plagiarism of any kind is unacceptable. Publishing one's own results more than once as if they are new, is "self-plagiarism".
- Plagiarism detecting software like "Turnitin" should be used before submitting any research proposal, paper for publication etc.

1.4 Safety and Environment –

- Academic work must not pose a risk or danger to people or the environment.
- Guidelines and regulations concerning safety must be formulated and carefully followed. This is especially important for handling, storing and disposing of radioactive, toxic or dangerous materials.
- Wherever relevant, due attention must be given to industrial safety, sustainable development, sharing of intellectual property rights, environmental loading and related issues.

1.5 Bias and discrimination –

- Academic communities are enriched by the presence of people of different ethnicities, genders, religions, castes, tribes, socioeconomic strata, affiliations,
- backgrounds and sexual orientations. There must be no direct or indirect bias or discrimination against any individual based on the above categories. Members should pro-actively strive to improve the balance of under-represented sections.
- Sexual misconduct and/or gender-based harassment in the workplace are totally unacceptable. There also exist many forms of behavior which may not amount to harassment in the legal sense but constitute gender-based discrimination. Institutions should strive to ensure that their members do not engage in such actions and should pro-actively sensitize their community on these issues.
- Bullying in the workplace is a form of harassment that usually targets the most vulnerable members. This can include abusive language, frequent use of insults, threatening letters, sabotage of others' work, exploiting juniors to carry out personal errands etc. Such actions are highly unethical and are not acceptable.

CODE OF PROFESSIONAL ETHICS

Institute Director

- Provide inspirational and motivational value-based academic and executive leadership to the institute through policy formation, operational management, optimization of human resources and concern for environment and sustainability.
- Conduct himself/herself with transparency, fairness, honesty, highest degree of ethics and decision making that is in the best interest of the institute.
- Act as steward of the institute's assets in managing the resources responsibility, optimally, effectively and efficiently for providing a conducive working and learning environment.
- Promote the collaborative, shared and consultative work culture in the university, paving way for innovative thinking and ideas.
- Endeavour to promote a work culture and ethics that brings about quality, professionalism, satisfaction and service to the nation and society.
- Must do their best to ensure that a culture of professionalism permeates the organization. Misuse of power is unethical and must be avoided.
- When committees are constituted, they must involve members known for their fairness and balance rather than personal loyalties or willingness to be influenced. Committees should be constituted keeping diversity in mind and should have appropriate gender representation.
- Where policy opinions and decisions are involved, officials must stay clear of commercial, social and political pressures. Conflicts of interest have to be avoided.
- Infringement of the right to privacy by an academic institution is not ethical. Not only the legal requirements but also more general professional standards for maintaining privacy should apply.
- Refrain from allowing considerations of caste, creed, religion, race, gender or sex in their professional endeavour.

Institute Principal

- Provide inspirational and motivational value-based academic and executive leadership to the college through policy formation, operational management, optimization of human resources and concern for environment and sustainability.
- Conduct himself/herself with transparency, fairness, honesty, highest degree of ethics and decision making that is in the best interest of the college.
- Act as steward of the College's assets in managing the resources responsibility, optimally, effectively and efficiently for providing a conducive working and learning environment.
- Promote the collaborative, shared and consultative work culture in the college, paving way for innovative thinking and ideas.
- Endeavour to promote a work culture and ethics that brings about quality, professionalism, satisfaction and service to the nation and society.
- Adhere to a responsible pattern of conduct and demeanor expected of them by the community.
- Manage their private affairs in a manner consistent with the dignity of the profession.
- Discourage and not indulge in plagiarism and other non-ethical behaviour in teaching and research.
- Participate in extension, co-curricular and extra-curricular activities, including the community service.
- Refrain from allowing considerations of caste, creed, religion, race, gender or sex in their professional endeavour.
- Maintain contact with the guardians, their students, send reports of their performance to the guardians whenever necessary.

Code of conduct for faculty

General

1. A person who chooses teaching as a career, assumes the obligation to conduct himself or herself at all times in accordance with the highest standards of the teaching profession, aiming at quality and excellence in work and conduct, setting an example which will command the respect of the pupils, the parents and colleagues.
2. Teaching, in its true sense, is not mere instruction but influence. The lecturer's duty is not merely to communicate knowledge in specific subjects but also to help students grow to their fullest potential and unfold their personality. In this responsible task what matters most is the personal example of the lecturer.

(a) Every faculty member shall by precept and example, instil in the minds of the pupils entrusted to his/her care following values :-

- ❑ Values of patriotism.
- ❑ Respect for law and order.
- ❑ Feeling of universal brotherhood and tolerance for all religions.
- ❑ Spirit of co-operation and social service.

(b) Every faculty member has an immense responsibility towards pupils. He/ she must: -

- ❑ Be impartial in his/her relations; be sympathetic and helpful to slow learners.
- ❑Aim to improve physical, mental and moral well being of pupils leading to overall personality development.
- ❑ Ensure that pupils do not take part in active politics.
- ❑Promote freedom of thought and expression coupled with discipline and dignity.

(c) Every faculty member should be above board in his/her personal conduct. He/She should: -

- ❑ Be temperate and sober in habits. He/she should scrupulously avoid chewing of betel leaves, smoking and such other undesirable habits in the presence of students and within the precincts of the institution.

- Have an exemplary moral character. His/Her dealings with the members of the other sex in the institute or outside it, should not be such as would cause reflection on his/her character or bring discredit to the Institute.
- Be neat & clean and dressed in a dignified manner.
- Abide by the rules and regulations of the Institute and show due respect to the constituted authority and diligently carry out instructions issued to him/her.
- Be punctual in attendance and all work related to class work and any other work or duty assigned to him/her by the Principal.
- Consider institute Property and funds as if placed in trust with him/her and shall exercise the same prudence and care, as he/she would do in respect of his/her own property or funds.
- Promote dignity and Solidarity of his/her profession.
- Be polite and courteous towards parents and guardians.

(d) A faculty member must Not : -

- Divulge confidential matters related to the institution.
- Be a member of any political party or indulge in activities either openly or in camera in support of any such party.
- Be a member of the State or Central Legislature. He/She shall resign his/her job before Standing for election as a candidate.
- Indulge in or encourage any form of malpractice connected with examinations or other institute activities.
- Undertake private tuition of Students of the institute. Extra coaching organised in the institute campus after the institute hours will not be considered as "Private Tuition"
- Engage himself/herself in any commercial activity or as a selling agent/ canvasser for any publishing firm or trader in institute campus.
- Represent his/her grievances if any, except through proper channel, nor will he/she canvass any non-official or outside influence or support in respect of any matter pertaining to his/her service in the institute.

- ❑ Accept or permit any member of his/her family or any other person acting on his/her behalf to accept any gift from any pupil, parent or any person with whom he/she has come into contact by virtue of his/her position in the institute.

Notes

1. The expression "gift" shall include free transport, boarding, lodging or other service or any other pecuniary advantage when provided by any person other than a near relation or personal friend having no officie! dealings with him/her.
2. A casual meal, fift or other social hospitality of a casual nature shaw! not be deemed to be a gift.
3. On occasions, such as weddings, anniversaries, funerals or religious functions when the making of a gift is in conformity with the prevailing religious or social practice, a lecturer may accept gift if the value thereof does not exceed Rs 500/-.

- ❑ Ask for or accept contribution to or otherwise associate with the raising of any funds or other collections in cash or in kind in pursuance of any object, whatsoever, except with previous sanction of the competent authority.
- ❑ Discriminate against any student on the ground of caste, creed, language, place of origin, social and cultural background or and any of them.
- ❑ Neglect in correcting assignments or neglect other duties assigned to him/her by the institute.
- ❑ Remain absent from the institute without leave or without the previous permission of the head of the institute.
- ❑ While being present in the institute absent himself/herself (except with the prior permission of the principal) from the class which he/she is required to take/attend.
- ❑ Practice or incite any student to practice' casteism, communalism or untouchability.
- ❑ Cause or incite any person to cause any damage to institute property.
- ❑ Propagate through his/her teaching lesson or otherwise, communal or sectarian outlook or incite or allow any student to indulge in communal and sectarian

activities.

- Behave or encourage or incite any student, teacher or other employee to behave in rowdy or disorderly manner in the institute premises.
- Be guilty of misbehaviour or cruelty towards any parent, guardian, student, teacher or other employees of the institute.
- Organize or attend any meeting in the institute except where he/she is required, or permitted by the principal of the institute to do so.
- Carry out monetary transactions with the pupils and parents and/ or exploit his/her institute influence for personal ends.
- Indulge in immoral activities.

The above code of conduct will also apply to Director, Principal and members of non- teaching staff of the institute.

APPENDIX A

FORMATS

Format No.	Description
AIT/IAAC/IEQP/01	Internal Exam Question paper
AIT/IAAC/ASSG/02	Assignment
AIT/IAAC/PF/03	Parent Feedback
AIT/IAAC/AF/04	Alumni Feedback
AIT/IAAC/EF/05	Employer feedback
AIT/IAAC/SEF/06	Student Exit Feedback
AIT/IAAC/RUB_SEM/07	Rubrics- Seminar
AIT/IAAC/RUB_ASSG/08	Rubrics_Assignment
AIT/IAAC/RUB_PROJ/09	Rubrics_Project
AIT/IAAC/RUB_PRAC/10	Rubrics_Practical
AIT/IAAC/RUB_MINI_PROJ/11	Rubrics_Mini Project
AIT/IAAC/COURSE_O/12	Course Outcome
AIT/IAAC/GA1/13	Gap Analysis 1
AIT/IAAC/GA2/14	Gap Analysis 2

AIT/IAAC/IEQP/01

Appendix A

Army Institute of Technology

Department of ---------- (E&Tc/ MECH/ IT/COMP)Engineering

Internal Exam Question Paper

Test

Academic Year: Semester: I/II Class:
Name of Course:
Name of the Faculty:

Q. No	Question	Marks /Grade	Unit No.	CO Mapped	Blooms Taxonomy level
1					
2					
3					
4					
5					
6					

Review Comments:

Name & Signature of Reviewer:

AIT/IAAC/ASSG/02

Army Institute of Technology

Department of ---------- (E&Tc/ MECH / IT/ COMP) Engineering

Assignment

Academic Year: Semester: I/II Class:
Name of Course:
Name of the Faculty:

Q. No.	Question	Marks /Grade	Unit No.	CO Mapped	Blooms Taxonomy level
1					
2					
3					
4					
5					
6					

Review Comments:

Name & Signature of Reviewer:

AIT/IAAC/PF/03

Army Institute of Technology

Department of ---------- (E&Tc/ MECH/ IT/ COMP) Engineering

Parent Feedback

Sr. No.	Parameter	Rating	Suggestion / comments
1	Academic Facilities (Classrooms and Labs) provided by AIT		
2	Administrative Facilities (Hostel, Mess)		
3	Co-curricular and Extracurricular activities		
4	Sports facilities		
5	Library Facilities		
6	Internship Provided		
7	Value added courses for enhancing employability of student.		
8	Placement (Core Company)		
9	Overall personality development of student		
10	Overall Impression		

(Rating Scale: 1 – Poor, 2 – Average, 3 – Good, 4 – Very Good, 5 – Excellent)

Additional suggestions / Comments

The Strongest aspect of the Department	Areas of improvement

Signature with Date	
Name of the Parent	

Contact No. & email ID	

AIT/IAAC/AF/04

Army Institute of Technology

Department of ---------- (E&Tc/ MECH/ IT/ COMP) Engineering

Alumni Feedback

1. Personal Information:

Name	
Mobile No.	
Email ID	
Permanent Address	
Qualification	
Total Experience	
Year of admission to AIT	
Graduation Year	
Final Year % Marks	
Are You Working Presently or Pursuing Higher Studies?	Working / Pursuing Higher Studies
Name of company and Position and date of joining / Name of Course and Institute and date of joining	

2. What was your First Job/Higher Education/Entrepreneurship after graduation(Name of

Organisation/Institute) ?

3. What was the date of joining of your first job/higher education/entrepreneurship ?
4. Whether your first job after passing was through campus placement ? Yes/No
5. Please describe , how engineering studies from (FE to BE) found useful to you in actual field
6. What was the profile of your job ?
7. Name the organisations that you worked from first job to present job ?
8. In what way, you can help current batch students of AIT((Select with √)
   - ❑ Financial support for setting up enhanced laboratories
   - ❑ Giving guidance and mentorship to students to make students industry ready
   - ❑ Delivering Expert lectures to current batch students
   - ❑ Arranging industrial visits
   - ❑ Support for final year projects
   - ❑ Support for Industrial training for 1-2 months (about 4- 8 weeks with/without stipend)
   - ❑ Support for placement
   - ❑ Providing opportunity to faculty for necessary hands on training on latest/advanced machines or software available in organization
   - ❑ Extend financial support to organize activities such as conference, symposiums, poster presentations etc.
   - ❑ Any other pl specify:
9. Which program Outcomes (POs) you feel are the most important in real life after graduation?

Your response can be (1) Below Expectation (2) Meets Expectation (3) Exceeds Expectation.

Sr. NO.	Question	1	2	3
1	PO1: Engineering Knowledge			
2	PO2: Problem Analysis			
3	PO3: Design/Development of solutions			
4	PO4: Conduct Investigations of complex problems			
5	PO5: Modern tool usage			
6	PO6: The Engineer and Society			
7	PO7:Environment and Sustainability			
8	PO8: Ethics			
9	PO9: Individual and Team work			
10	PO10: Communication(Oral & written)			
11	PO11: Project Management and finance			
12	PO12: Lifelong Learning			

10. Any other, pl specify

Signature with Date

AIT/IAAC/EF/05

Army Institute of Technology

Department of ---------- (E&Tc /MECH/ IT/ COMP) Engineering)

Employer's Feedback

Survey of Employers for (E&Tc/Mech/IT/Comp) Engineering graduates Passed out in last 5 years.

1. Name of AIT Alumni working in your organization
2. Department of AIT Alumni
3. Designation
4. Mobile No.
5. Email id
6. Rate the overall performance of AIT alumni while working in your organization

1-Lowest 5- Highest [Tick √]

1	2	3	4	5

7. Which competency/skills of AIT alumni, you found most useful during working ?

8. In what way, you can help present students learning(Select with √) ?
   a. Financial support for setting up enhanced laboratories
   b. Giving guidance and mentorship to students to make students industry ready
   c. Delivering Expert lectures to current batch students
   d. Arranging industrial visits
   e. Support for final year projects
   f. Support for Industrial training for 1-2 months (about 4 -8 weeks with/without stipend)
   g. Support for placement
   h. Providing opportunity to faculty for necessary hands on training on latest/advanced machines or software available in organization
   i. Extend financial support to organize activities such as conference, symposiums, poster presentations etc.
9. Which curriculum gaps you observed during your working with AIT alumni ?

10. What message/guidance would you like to give to current batch students to be a successful engineer?

11. Which program Outcomes (POs) you feel are the most important in real life after graduation?

Your response can be (1) Below Expectation (2) Meets Expectation (3) Exceeds Expectation (Tick appropriate option √)

Sr. NO.	Question	1	2	3
1	PO1: Engineering Knowledge			
2	PO2: Problem Analysis			
3	PO3: Design/Development of solutions			
4	PO4: Conduct Investigations of complex problems			
5	PO5: Modern tool usage			
6	PO6: The Engineer and Society			
7	PO7:Environment and Sustainability			
8	PO8: Ethics			
9	PO9: Individual and Team work			
10	PO10: Communication(Oral & written)			
11	PO11: Project Management and finance			
12	PO12: Lifelong Learning			

Signature with date

AIT/IAAC/SEF/06

Army Institute of Technology

Department of ---------- (E&Tc /MECH/ IT/ COMP) Engineering)

Student Exit Feedback

1. Student Information:

Name	
Mobile No.	
Email ID	
Permanent Address	
Year of admission to AIT	
Graduation Year	
Final Year % Marks	
Are you planning for higher education? (ME / MTech / MBA / MS)	
If Yes, Where?	
How many job interviews you attended till now (Approx.)?	
How many job offers have you received?	

Present Company Name and Position	

2. Overall Assessment of Curriculum: (Select with √)

Courses Offered	Emphasis given by the Program			Satisfaction you gain		
	Little	Adequate	Too much	No	Some what	Satisfied
Basic Sciences						
Social Sciences & Humanities						
Core Subjects						
Departmental Electives						
Add on Courses						

Comments (if any):

3. Other Assessment: (Select with √)

(Rating Scale: 1 – Poor, 2 – Average, 3 – Good, 4 – Very Good, 5 – Excellent)

Sr. No.	Parameter	Rating				
		1	2	3	4	5
1	Infrastructure Facilities					
2	Academic Environment					
2	Academic Facilities – Classrooms, Labs					
3	Administrative Facilities – Student Section, Accounts, T&P					

4	Administrative Facilities – Principal Office, HoD Office					
5	Co-curricular & Extra-curricular					
6	Quality of Instruction by Faculty					

4. Which program Outcomes (POs) you feel are the most important in real life after graduation?

Your response can be (1) Below Expectation (2) Meets Expectation (3) Exceeds Expectation.

Sr. NO.	Question	1	2	3
1	PO1: Engineering Knowledge			
2	PO2: Problem Analysis			
3	PO3: Design/Development of solutions			
4	PO4: Conduct Investigations of complex problems			
5	PO5: Modern tool usage			
6	PO6: The Engineer and Society			
7	PO7:Environment and Sustainability			
8	PO8: Ethics			
9	PO9: Individual and Team work			
10	PO10: Communication(Oral & written)			
11	PO11: Project Management and finance			
12	PO12: Lifelong Learning			

5. Overall Experience at AIT: (Select with √)

Please rate your overall experience (Rating Scale: 1 – Average, 2 – Good, 3 – Excellent)	1	2	3

6. Would you recommend the ---------- Program(E&Tc, Mech, IT, Comp) at AIT to relative / friend? (Select with √)

Yes	May be	No

7. What do you think are the strengths of ---------- Program (E&Tc, Mech, IT, Comp) at AIT?

_____

_____

_____

What do you think are the weakness of ---------- Program (E&Tc, Mech, IT, Comp) at AIT?

_____

_____

_____

8. Your suggestions for improvement of ----------Program ((E&Tc, Mech, IT, Comp) at AIT.

_____

_____

_____

Signature of student

AIT/IAAC/RUB_SEM/07

Army Institute of Technology
Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Evaluation Rubric
(Seminar/Audit Course/ Oral Presentation)

Name of the Student	
Roll No.	
Class	
Title of Presentation	
Name of the Evaluator	
Date	

Grade	Poor	Average	Good	Outstanding
Marks	0-3	4-6	7-8	9-10

	Poor	**Average**	**Good**	**Outstanding**
	(0-3)	(4-6)	(7-8)	(9-10)
Knowledge of subject/topic	Not able to answer basic questions	Answered most of the questions	Answered all the questions, but failed to elaborate	Demonstrated full knowledge; answered all questions with elaboration
Organization of presentation	Hard to follow. The topics in the presentation is presented haphazardly, with no logical sequencing evident.	Most of the information in sequence. The organization is awkward in a few places.	The order of the presentation is logical, but the transitions are not smooth.	Information is presented as an interesting story, easy to follow. The presentation followed a logical sequence and flowed smoothly from one section to the next.
Content	No proper introduction. State of the art	Introduction is not up to the mark.	Presentation contains accurate information.	Introduction is attention-getting, lays out the problem well, and establishes a framework

	is not known. Content is irrelevant. No proper conclusion.	State of the art is incomplete. Presentation contains some incorrect information. Some material is irrelevant.	Material included is relevant to the overall message/purpose. Appropriate amount of material is prepared, and points made reflect well their relative importance.	for the rest of the presentation. Technical terms are well-defined in language appropriate for the target audience. Presentation contains accurate information. Material included is relevant to the overall message/purpose. Appropriate amount of material is prepared. There is an obvious conclusion summarizing the presentation.
Background	Material not clearly related to topic	Material sufficient for clear understanding but not clearly presented	Material sufficient for clear understanding and effectively presented	Material sufficient for clear understanding and exceptionally presented
Methods	Methods too brief or insufficient for adequate understanding	Sufficient for understanding but not clearly presented	Sufficient for understanding and effectively presented	Sufficient for understanding and exceptionally presented
Equations, Figures, Graphs, Tables, etc.	Hard to read, in inappropriate format	Clear figures, appropriately formatted, but unable to explain	Clear figures, appropriately formatted, well explained	Clear figures, appropriately formatted, exceptionally explained
Presentation Skills, use of PowerPoint	No use of Graphics /Animation	Uses graphics that relate to text and presentation	Uses graphics that explain text and presentation	Uses graphics that explain and reinforce text and presentation
Spelling & Grammar	Many misspellings and/or grammatical errors	Not many misspellings and/or grammatical errors	Only a few misspellings and/or grammatical errors	No misspellings and/or grammatical errors
Eye Contact	Reads most slides, no eye contact	Refers to slides to make points; occasional eye contact	Refers to slides to make points; eye contact majority of the time	Refers to slides to make points; engaged with audience
Ability to speak	Mumbles and/or Incorrectly pronounces some terms;	Voice fluctuates from low to clear; difficult to hear at times	Voice is clear with few fluctuations; audience can hear well most	Voice is clear and steady; audience can hear well at all times

	voice is low; difficult to hear		of the time	
Length and Pace	Short; Rushed or dragging throughout	Short; Rushed or dragging in parts	Adequate; well-paced	Appropriate; Well-paced throughout
Understanding	The student committed many errors and demonstrated little understanding of the material.	The student showed understanding of many issues, but errors are frequent.	The student has almost complete understanding , but there are some errors.	The student understood all the material deeply.
Depth	The student covered all topics only at a superficial level.	The student covered few topics in depth.	The student covered most topics in depth.	The student covered all the necessary topics in depth.
Use of Visual Aids	Slides showed little or no effort, poor organization, are unattractive, are inappropriate in number, and did not have the appropriate amount of Information.	Slides were difficult to read and consistently had too much or too little information	Most slides are good but some lacked clarity.	Slides were appropriate in number, and easily legible. Figures and tables from outside sources were appropriately cited.
Delivery	Poor delivery impaired the clarity and understanding of the presentation.	The delivery is poor enough to be noticeable but not poor enough to impair understanding.	There is some awkwardness in pacing or volume.	The delivery was smooth, confident, well-paced, and at the right volume.
Seminar Report (Applicable only to seminars)	Content is poorly organized. Figures, tables and equations are of poor quality and fail to support the text. Report is formatted poorly. Sentences are poorly written; there are many errors in Grammar,	Some of the information in sequence. Some figures and tables are missing. Equations are not properly formatted. Formatting of the report is not up to the mark. Some sentences are poorly written.	Most of the information in sequence. Figures, tables and equations are of good quality and adequately support the text. Formatting of the report is generally consistent and adequate. Sentences are generally well-written; there	Very well organized. Figures, tables and equations are creative, professional and strongly support the text. Formatting of the report is professional. Sentences are well-written; there are no incorrect word choices and the text is free of

	punctuation and spelling. No proper citation.	There are some errors ingrammar, punctuation and spelling. Many sources are not cited properly.	are a few incorrect word choices and errors in Grammar, Punctuation and spelling. Most sources are cited properly.	errors in grammar, punctuation and spelling. All sources are cited properly.

AIT/IAAC/RUB_ASSG/08

Army Institute of Technology

Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Evaluation Rubric
(Assignment/Class Test)

Name of the Student	
Roll no	
Class	
Details of Assignment or Class Test	
Name of the Evaluator	
Date	

Grade	Poor	Average	Good	Outstanding
Marks	0-3	4-6	7-8	9-10

(Tick appropriate option√)

	Poor	**Average**	**Good**	**Outstanding**
	(0-3)	(4-6)	(7-8)	(9-10)
Organization: Introduction, Body and Conclusion	There appears to be no organization of the content. Transitions are confusing or unclear. Only a few topic sentences.	The organization is difficult to follow due to inadequate transitions There are many paragraphs without topic sentences.	The organization of content is easy to follow. Basic transitions are provided. Some paragraphs lack topic sentences.	The structure is clearly developed with effective transitions from point to point. Solid topic sentences.
Comprehension of the	The content demonstrates little	Essay demonstrates a	Essay demonstrates a	Essay demonstrates an in depth

Readings	understanding of the ideas in the assigned reading and does not critically evaluate/respond to those ideas in an analytical, persuasive manner.	general understanding of the ideas in the assigned reading and only occasionally critically evaluates/responds to those ideas in an analytical, persuasive manner.	solid understanding of the ideas in the assigned reading and critically evaluates/responds to those ideas in an analytical, persuasive manner.	understanding of the ideas in the assigned reading and critically evaluates/responds to those ideas in an analytical, persuasive manner.
Treatment of Key Concepts in the Assignment	The content does not address the actual prompt; it indicates serious misreading of the text; it does not use textual support; it is unclear, badly written or unacceptably brief.	The content fails in some important way to fulfill the assignment. It omits some part and fails to provide minimal textual support for its points. The content is incomplete, awkward, insufficient, or illogical.	The content typically addresses the assigned question intelligently but does not answer it fully and/or specifically. It is Characterized by a good but general grasp of the text and by the ability to use the text to frame an apt but imprecise response to the prompt. It may use textual references and quotations sparingly.	The content responds to the assignment clearly and directly with good development. It indicates a good understanding of the text and Supports its points with appropriate textual references and/or quotations.
Analysis and Originality	Simplistic view of the topic with no alternative views. Writing is more descriptive than analytical.	Does not make outside connections. Even balance between critical thinking and description.	Occasional insightful connections to outside material. Effective use of critical thinking in analysis.	Makes novel connections to outside materials. Analysis is fresh, posing new ways to think of the material.
Mechanics	Major problems in sentence structure, grammar, and diction. Frequent major errors in citation style, punctuation, and spelling.	Problems in sentence structure, grammar, and diction (usually not major). Some errors in punctuation, citation style, and spelling.	Sentence structure, grammar, and diction strong despite occasional lapses; punctuation and citation style often used correctly. Some (minor) spelling errors.	Sentence structure, grammar, and diction excellent; correct use of punctuation and citation style; minimal to no spelling errors.

AIT/IAAC//RUB_PROJ/09

Army Institute of Technology

Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Name of the Student	
Roll No.	
Class	
Title of Project	
Name of the Evaluator	
Date	

Rubrics for BE Project Internal Evaluation

Rubrics Review

Review #	Agenda	Assessment	Review Assessment Weightage
Review 1	Project Synopsis / Proposal Evaluation	Rubric R1	50 Marks
Review 2	Mid-Term Project Evaluation	Rubric R2	50 Marks
Review 3	End Semester Internal Project Evaluation	Rubric R3	50 Marks
Review 4	Project Report Evaluation	Rubric R4	50 Marks
Total			**200 Marks**

RUBRIC #R1: PROJECT SYNOPSIS/PROPOSAL EVALUATION

Maximum Marks*: 50

Parameters	Total Marks	Outstanding (10-15 Marks)	Good (6-9 Marks)	Average/Poor(0-5 Marks)
Identification of project Domain	15	Extensive and detailed explanation of purpose and need of project	Average explanation of the purpose and need of project	Limited information
Detailed analysis of Feasibility	15	Detailed and thorough explanation of specifications and limitations	Collects information and moderate study of the existing systems	Moderate study of the existing systems; collects some basic information
Objectives and methodology of project proposal	20	Well defined objectives Well defined steps to solve the problem	Average justification of the objectives. Methodology is specified but detailing is not done	Incomplete justification of objectives Methodology is unclear
		(15-20 Marks)	(6-14 Marks)	(0-5 Marks)

RUBRIC #R2: MID TERM PROJECT EVALUATION

Maximum Marks: 50

Parameters	Total Marks	Outstanding (10-15 Marks)	Good (6-9 Marks)	Average/Poor(0-5 Marks)
Design Methodology	15	Division of problem into modules with proper justification and good selection of computing framework/hardware Appropriate design methodology and proper justification	Division of problem into modules and average selection of computing framework/hardware Design methodology specified without proper justification	Division of problem into modules and inappropriate selection of computing framework/hardware Design methodology not specified properly
Planning	15	Proper planning and being followed	Proper planning but being followed partially	Proper planning but not being followed
Demonstration and presentation	20	Objectives are achieved as per plan Presentation contents are appropriate is very well arranged Demonstration is satisfactory Clear voice with good spoken language with proper eye contact	Objectives are achieved as per plan Presentation contents are appropriate and is arranged Demonstration is satisfactory Clear voice with good spoken language Not proper eye contact	Few Objectives are achieved as per plan Presentation contents are appropriate but not arranged Demonstration is not satisfactory Unclear voice No proper eye contact
		(15-20 Marks)	(6-14 Marks)	(0-5 Marks)

RUBRIC #R3: END SEMESTER INTERNAL PROJECT EVALUATION

Maximum Marks: 50

Parameters	Total Marks	Outstanding (10-15 Marks)	Good (6-9 Marks)	Average/Poor(0-5 Marks)
Modifications incorporated as per suggestions	15	Modifications are incorporated as per suggestions given during mid term evaluation And new innovations are added Design methodology specified properly	Major changes as suggested during mid term evaluation are incorporated Design methodology not specified properly	Suggestions given during mid term evaluation are not incorporated Design methodology not specified properly
Project Demonstration	15	All Objectives are achieved All modules are working satisfactorily The modules are integrated properly and the system is working satisfactorily Demonstration is satisfactory	All objectives are achieved All modules are working satisfactorily Integration of the modules and system working is not satisfactory Demonstration is not satisfactory	Few Objectives are achieved Modules are not working properly Integration of the modules and system working is not satisfactory Demonstration is not satisfactory
Presentation	20	Presentation contents are appropriate and is well delivered Clear voice with good	Presentation contents are appropriate and is not well delivered	Presentation contents are not appropriate Unclear voice

		spoken language with proper eye contact	Clear voice with good spoken language Not proper eye contact	No proper eye contact
		(15-20 Marks)	(6-14 Marks)	(0-5 Marks)

RUBRIC #R4: PROJECT REPORT EVALUATION

Maximum Marks: 50

Parameters	Total Marks	Outstanding (10-15 Marks)	Good (6-9 Marks)	Average/Poor(0-5 Marks)
Project report	15	Project report is according to the specified format References and citations are appropriate	Project report is according to the specified format, but not well prepared, references are missing	Project report not prepared according to the specified format, references are not appropriate
Description of concepts and Technical Details	15	Proper explanation of key concepts, strong description of technical requirements of the project	Inadequate description of technical requirements of the project	Inappropriate explanation of key concepts, poor description of technical requirements of the projects
Conclusion and discussion	20	Results are presented in Appropriate manner, project work is well summarized and concluded, future extension in the project	Result presented are satisfactory, project work summary and conclusion not very appropriate, future extension in the project	Result are not presented properly, project work is not summarized and concluded, future scope in the project are not specified
		(15-20 Marks)	(6-14 Marks)	(0-5 Marks)

AIT/IAAC//RUB_PRACT/10

Army Institute of Technology

Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Rubrics For Continuous Evaluation For Practical/Lab Session

Max Marks:10

Parameters	Marks	Outstanding	Good	Average/Poor
Conduction	2	Performed the experiment/Executed the given program	Performed the partial experiment/executed the given program partially	Not performed the experiment/Not executed the given program
		2 marks	1 Mark	0 Mark
Continuous assessment Oral/viva voce	2	Students answered all the questions	Students answered only a few questions	Students did not answer any questions
		2 Marks	1 mark	0 Mark
Journal writing and submission	6	Completed Journal submitted	Journal submitted but incomplete	Journal not submitted
		4-6 Marks	1-3 Marks	0 Mark

AIT/IAAC/RUB_MINI_PROJ/11

Army Institute of Technology

Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Mini Project Evaluation Rubric

Name of the Student	
Roll No.	
Class	
Title of Project	
Name of the Evaluator	
Date	

REVIEW #1 : PROJECT PROPOSAL EVALUATION RUBRIC

Max Marks:10

Parameter	Marks	Outstanding 4-5 Marks	Good 2-3 marks	Average/Poor 0-1 Mark
Project selection	05	Extensive and detailed explanation of purpose and need of project	Average explanation of the purpose and need of project	Incomplete explanation of purpose and need of project
Objectives and methodology of project proposal	05	Well defined objectives Well defined steps to solve the problem	Average justification of the objectives. Methodology is specified but detailing is not	Incomplete justification of objectives Methodology is unclear

			done	

REVIEW 2# DESIGN METHODOLOGY EVALUATION RUBRIC

Max Marks:10

Parameter	Marks	Outstanding 8-10 Marks	Good 5-7 Marks	Average/Poor 0-4 Marks
Design Methodology	10	Division of problem into modules with proper justification and good selection of computing framework/hardware Appropriate design methodology and proper justification	Division of problem into modules and average selection of computing framework/hardware Design methodology specified without proper justification	Division of problem into modules and inappropriate selection of computing framework/hardware Design methodology not specified properly

REVIEW 3# HARDWARE/SOFTWARE IMPLEMENTATION RUBRIC

Max Marks:30

Parameter	Marks	Outstanding 8-10 Marks	Good 5-7 Marks	Average/Poor 0-4 Marks
Hardware/ Software implementation	10	All defined objectives are achieved Hardware/software implementation of the project is appropriate Project properly demonstrated	All defined objectives are achieved Hardware/software implementation of the project is appropriate Project is not properly demonstrated	Defined objectives are not achieved Hardware/software implementation of the project is not appropriate
Demonstration/Presentation	10	Presentation of the project is appropriate and well delivered	Presentatation of the project is appropriate and not well delivered	Presentatation of the project is not appropriate and not well delivered
Project report	10	Project report is according to the given format. Key concepts and the technical aspects of the project are clearly described	Project report is according to the given format but is not well prepared	Project report is not according to the given format and is not well prepared

AIT/IAAC/COURSE_O/12

Army Institute of Technology

Department of ---------- (E&Tc/MECH/IT/COMP)Engineering

Course Outcome Feedback

Academic Year: Semester
Course: Theory Class:
Name of Faculty:

Please put your opinion about course outcomes in the scale of 1-5
Scale: 5= To a great extent, 1= Not at all (Tick appropriate option√)

Sr. No.	Course Outcomes	5	4	3	2	1
CO1						
CO2						
CO3						
CO4						
CO5						
CO6						

AIT/IAAC/GA1/13

Army Institute of Technology

Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Gap Analysis

Format for Gap Analysis Identified by Exit Students

(To be taken by subject teacher from selected students of class at the end of course)

Name of Student :	Department:
Class and Course:	Semester and Academic Year:
Subject:	Subject Code:

Unit No	Course Contents	Suggested Addition of Topic	Suggested Removal of Topic
1.	**Unit 1:**		
2.	**Unit 2:**		
3.	**Unit 3:**		
4.	**Unit 4:**		
5.	**Unit 5:**		

6.	**Unit 6:**		

AIT/IAAC/GA2/14

Army Institute of Technology

Department of ---------- (E&Tc/MECH/ IT/COMP) Engineering

Gap Analysis

Format for Gap Analysis Identified by Employers/Industry Expert

(To be taken by TPO for selected employers recommended by HOD)

Name of Student :	**Department:**
Class and Course:	**Semester and Academic Year:**
Subject:	**Subject Code:**

Unit No	**Course Contents**	**Suggested Addition of Topic**	**Suggested Removal of Topic**
1.	**Unit 1:**		
2.	**Unit 2:**		
3.	**Unit 3:**		
4.	**Unit 4:**		
5.	**Unit 5:**		

6.	**Unit 6:**		

APPENDIX B

Microsoft EXCEL Sheet to be circulated

OBE Committee Members

Dr Surekha KS

Prof R B Patil

Dr Seema Tiwari

Dr R Jayadevan

Dr Ashwini Sapkal