



INSTITUTE OF AERONAUTICAL ENGINEERING (AUTONOMOUS)

Dundigal - 500 043, Hyderabad, Telangana

Complex Problem Solving Evaluation

(For evaluation by Resource person / Course Faculty / Course Co-Ordinator and
Complex Problem Committee)

1. Check list for ECs and Wks: Engineering Competence Profiles - Complex Engineering Problems and Activities and Knowledge Profiles

Engineering Competencies Measured are EC1 – EC12. Report your findings as given below:

| S No | Activity | (✓) |
|------------------------------|----------------------------------------------------------------------------------|-----|
| 1 | ELRV Utilization | |
| 2 | Check for proper understanding of WK1 | |
| 3 | WK1 evident in all EC1- EC12 | |
| 4 | Check for proper understanding of WK2 – WK9 | |
| | How many are implemented? Mention them _____ | |
| 5 | WK2- WK9 evident in all EC1- EC12 | |
| 6 | Review the addressed questions in problem statement critically | |
| 7 | Identify difficulty levels complexity characteristics and how they are addressed | |
| Report your findings: | | |

2. Rubrics for Solving Complex Engineering Problem

| S.No | Components | Level of Achievement | | | | |
|------|----------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| | | Excellent (4) | Good (3) | Basic (2) | Just Acceptable (1) | Unacceptable (0) |
| 1 | Defining the Problem | <input type="checkbox"/> 4 – Student states the problem clearly and clearly identifies the underlying issues. | <input type="checkbox"/> 3 – Student adequately defines the problem and identifies the underlying issues. | <input type="checkbox"/> 2 – Student inadequately defines the problem and identifies the underlying issues. | <input type="checkbox"/> 1 – Student fails to define the problem adequately and does not identify the underlying issues. | <input type="checkbox"/> 0 – Student does not define the problem at all. |
| 2 | Identify Strategies | <input type="checkbox"/> 4 – Identifies multiple approaches for solving the problem that apply within a specific context. | <input type="checkbox"/> 3 – Identifies multiple approaches for solving the problem only some of which apply within a specific context. | <input type="checkbox"/> 2 – Identifies only a single approach for solving the problem that does apply within a specific context. | <input type="checkbox"/> 1 – Identifies one or more approaches for solving the problem that do not apply within a specific context. | <input type="checkbox"/> 0 – Cannot Identify one or more approaches for solving the problem that does not apply within a specific context. |

| S.No | Components | Level of Achievement | | | | |
|----------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| | | Excellent (4) | Good (3) | Basic (2) | Just Acceptable (1) | Unacceptable (0) |
| 3 | Problem description | <input type="checkbox"/> 4 – Problem is described in clear and interesting way with relevant real context. | <input type="checkbox"/> 3 – Problem is described but additional data, links or real context not properly mentioned. | <input type="checkbox"/> 2 – Problem is described clearly but there is no important (relevant) real context. | <input type="checkbox"/> 1 – Problem is described but without additional data, links or real context. | <input type="checkbox"/> 0 – Problem is not clearly described or it is not a problem. |
| 4 | Collecting and Analysing Information | <input type="checkbox"/> 4 – Student collects information from multiple sources and analyzes the information in depth. | <input type="checkbox"/> 3 – Student collects information from multiple sources and performs basic analyses. | <input type="checkbox"/> 2 – Student collects adequate information to perform meaningful analyses. | <input type="checkbox"/> 1 – Student collects inadequate information to perform meaningful analyses. | <input type="checkbox"/> 0 – Student collects no viable information. |
| 5 | Interpreting Findings and Solving the Problem | <input type="checkbox"/> 4 – Student provides a logical interpretation of the findings and clearly solves the problem, offering alternative solutions. | <input type="checkbox"/> 3 – Student provides a logical interpretation of the findings and solves the problem, but fails to provide alternative solution. | <input type="checkbox"/> 2 – Student provides an adequate interpretation of the findings and solves the problem, but fails to provide alternative solution. | <input type="checkbox"/> 1 – Student provides an inadequate interpretation of the findings and does not derive a logical solution to the problem. | <input type="checkbox"/> 0 – Student does not interpret the findings/reach a conclusion. |
| Marks Obtained | | | | | | |
| Marks Obtained out of 20: | | | | | | |

Date:

Signature of the faculty