

BDP 1 REPORT EVALUATION (40%)

(RE1) Abstract (Weightage: 2) (Items: Background, problem statement, objectives, expected outcome/results, conclusion)	PO1: Knowledge SK1 – SK4
Excellent abstract that states the background, problem, objectives, expected outcomes and conclusion concisely.	10 9
Good abstract that covers all items, with one stated only briefly.	8 7 6
Fair abstract that omits one or two items, or reads as an introduction.	5 4 3
Poor abstract that omits most items and gives no expected outcomes.	2 1
No abstract is provided.	0
(RE2) Chapter 1: Introduction – Project Background (Weightage: 2) (Items: Rationale, key problem statement, and comprehensive overview of the project context)	PO1: Knowledge SK1 – SK4
Excellent background that explains the technology and context with cited support, leading clearly to the problem.	10 9
Good background that explains the context with some support, leading to the problem.	8 7 6
Fair background that describes the topic generally, with a weak link to the problem.	5 4 3
Poor background that is unfocused and not related to the problem.	2 1
Project background is not provided.	0
(RE3) Chapter 1: Introduction – Problem Statement (Weightage: 2) (Items: Explanation of issue/challenge, proposed engineering solution, stakeholder impact, supporting regulations/policies)	PO2: Problem analysis SK3 , SK5 SP1, SP2
Excellent problem statement that defines the issue, its constraints, the stakeholders affected, and the engineering solution proposed.	10 9
Good problem statement that defines the issue and the solution, with constraints or stakeholders only partly covered.	8 7 6
Fair problem statement that describes the issue broadly, without constraints or stakeholder impact.	5 4 3
Poor problem statement that is vague and does not identify an engineering problem.	2 1
Problem statement is not provided.	0
(RE4) Chapter 1: Problem Statement – Societal, Health, Safety, Legal & Cultural Considerations (Weightage: 2) (Items: Integration of relevant societal, health, safety, legal and/or cultural considerations into the problem context, including explanation of their relevance and the consequent responsibilities of engineering technology practice)	PO6 – The Engineer and Society SK7 SP1, SP2, SP4

Excellent integration that clearly identifies and explains relevant societal, health, safety, legal and/or cultural considerations and justifies their relevance to the engineering problem using appropriate evidence or examples.	10	9	
Good integration that identifies and explains relevant societal, health, safety, legal and/or cultural considerations, with reasonable justification of their relevance to the problem.	8	7	6
Fair integration that mentions relevant societal, health, safety, legal and/or cultural considerations, but provides limited explanation or justification of their relevance.	5	4	3
Poor integration that only briefly mentions one or more societal, health, safety, legal and/or cultural considerations without explaining their relevance to the problem.	2	1	
Relevant societal, health, safety, legal and/or cultural considerations are not included in the problem statement.	0		
(RE5) Chapter 1: Problem Statement – Environmental Impact & Sustainable Development Goals (SDG) (Weightage: 2) <i>(Items: Integration of environmental considerations into the problem context, including explicit identification, explanation and justification of alignment with at least one relevant UN Sustainable Development Goal (SDG))</i>	PO7 – Environment and Sustainability SK7 SP1, SP2, SP4		
Excellent integration that clearly explains the environmental impact of the engineering problem and justifies alignment with a relevant UN SDG using appropriate evidence or examples.	10	9	
Good integration that explains the environmental impact and identifies a relevant UN SDG, with reasonable justification of the connection.	8	7	6
Fair integration that mentions environmental considerations and a relevant UN SDG, but provides limited explanation of the relationship between them.	5	4	3
Poor integration that only names an environmental consideration or SDG without explaining its relevance or connection to the problem.	2	1	
Environmental considerations and/or alignment with a relevant UN SDG are not included in the problem statement.	0		
(RE6) Chapter 1: Introduction – Scope (Weightage: 2) <i>(Items: Boundaries, limitations, methodology constraints, and experimental setup parameters)</i>	PO2: Problem analysis SK3,SK4 SP1, SP3, SP4		
Excellent scope that states the boundaries, limitations and constraints, and what the project will not cover.	10	9	
Good scope that states the boundaries clearly, with some limitations missing.	8	7	6
Fair scope that gives broad boundaries only, with limitations left unstated.	5	4	3
Poor scope that is vague, with no boundaries or limitations given.	2	1	
Scope is not provided.	0		
(RE7) Chapter 2: Literature Review (Weightage: 9) <i>(Items: Investigation of existing systems/techniques, comparative analysis table, critical synthesis of technological state-of-the-art)</i>	PO4: Investigation SK3, SK6, SK8 SP1, SP2, SP3		
Excellent literature review that covers relevant work broadly, compares it in a table, and justifies the selected technique.	10	9	
Good literature review that covers relevant work and compares it in a table, but justifies the selection weakly.	8	7	6
Fair literature review that covers limited work, describes more than it compares, and does not link to the selection.	5	4	3

Poor literature review that uses few or irrelevant sources, makes no comparison, and has no link to the project.	2	1	
Literature review is not provided.	0		
(RE8) Chapter 3: Methodology – Design of Procedures (Weightage: 4) <i>(Items: Design of engineering procedures, hardware/software implementation, and flowcharts)</i>	PO3: Design/ development of solutions SK3, SK5 SP1, SP3, SP7		
Excellent design in which the procedures and flowcharts are complete, correct and justified against the objectives.	10	9	
Good design in which the procedures and flowcharts are complete, with justification only partly given.	8	7	6
Fair design in which the procedures are outlined but steps or flowcharts are incomplete.	5	4	3
Poor design in which the procedures are unclear, incomplete or technically flawed.	2	1	
Design of procedures is not provided.	0		
(RE9) Chapter 3: Methodology – Tools Selection and Integration (Weightage: 3) <i>(Items: Selection of technical tools and software, justification of choice, and integration logic)</i>	PO5: Tool Usage SK2, SK3, SK6 SP1, SP2, SP3		
Excellent selection in which all tools are named and justified, and their integration is clearly explained.	10	9	
Good selection in which the tools are named and integrated, with justification only partly given.	8	7	6
Fair selection in which the tools are named but the integration or justification is missing.	5	4	3
Poor selection in which the tools are largely unspecified and the integration is not explained.	2	1	
Tools selection and integration are not provided.	0		
(RE10) Chapter 4: Preliminary Results (Weightage: 4) <i>(Items: Progress on the developed project, initial simulation or experimental proof-of-concept data)</i>	PO4: Investigation SK3, SK6, SK8 SP1, SP2, SP3		
Excellent preliminary results that demonstrate working progress supported by valid proof-of-concept data.	10	9	
Good preliminary results that show progress with data that is valid but limited.	8	7	6
Fair preliminary results that show some progress, with data largely descriptive and unverified.	5	4	3
Poor preliminary results that show minimal progress and little data.	2	1	
Preliminary results are not provided.	0		
(RE11) Chapter 5: Conclusion and Project Planning (Weightage: 2) <i>(Items: Summary of current progress relative to objectives, Gantt chart, milestone planning and estimated project cost for PSM 2 execution)</i>	PO1: Knowledge SK1 – SK4		
Excellent conclusion that reports progress against every objective and gives a realistic, costed plan for PSM 2.	10	9	

Good conclusion that reports progress against most objectives and gives a workable, costed plan with minor gaps.	8	7	6
Fair conclusion that reports progress loosely against objectives and gives a generic plan with weak costing.	5	4	3
Poor conclusion that barely relates to the objectives and gives a vague plan without milestones or costing.	2	1	
Conclusion is not provided.	0		
(RE12) References (Weightage: 2) <i>(Items: Minimum 20 reliable academic/technological references, minimum 30% published within the last 5 years, all cited in the text)</i>	PO1: Knowledge SK1 – SK4		
Excellent referencing with 25 or more reliable references, over 50% recent, all cited.	10	9	
Good referencing with 20 or more reliable references, at least 30% recent, all cited.	8	7	6
Fair referencing with 15 to 19 references, under 30% recent, and a few not cited.	5	4	3
Poor referencing with fewer than 15 references, under 10% recent, and many not cited.	2	1	
No references are provided.	0		
(RE13) Report Formatting & Structure (Weightage: 2) <i>(Items: Adherence to report writing guidelines, figure/table captions, numbering, and layout standards)</i>	PO1: Knowledge SK1 – SK4		
Excellent formatting that follows the template fully, with all figures and tables captioned, numbered and referenced.	10	9	
Good formatting that follows the template, with minor caption, numbering or typographical errors.	8	7	6
Fair formatting that partly follows the template, with several caption or numbering errors.	5	4	3
Poor formatting that rarely follows the template, with captions and numbering mostly missing.	2	1	
Does not follow standard formatting.	0		
(RE14) Language, Academic Tone & Clarity (Weightage: 2) <i>(Items: Clear, precise, direct academic prose; correct grammar, spelling, technical punctuation, and terminology)</i>	PO1: Knowledge SK1 – SK4		
Excellent writing that is clear and precise, uses correct terminology, and has almost no grammar or spelling errors.	10	9	
Good writing that is clear, with minor errors that do not affect the meaning.	8	7	6
Fair writing that is understandable, but awkward phrasing and frequent errors slow reading.	5	4	3
Poor writing with frequent errors and unclear phrasing that obscure the meaning.	2	1	
Report is largely unintelligible.	0		

***SP1 – The report applies fundamental engineering knowledge together with specialist knowledge for the proposed work. (Problem statement, objectives, scope, methodology, preliminary results)**

***SP2 – The proposed work considers a variety of factors that impose conflicting constraints, such as the required technical specification and the available budget. These constraints are identified in the**

problem statement and addressed in the scope, methodology and cost estimate. (Problem statement, scope, methodology, cost estimate)

***SP3 – The proposed work is demonstrated through the application of well-proven analysis techniques and is solved in well-accepted ways. (Methodology, preliminary results)**

***SP4 – The proposed work belongs to families of familiar problems which are solved in well-accepted ways. (Problem statement, scope, literature review)**

***SP5 – The proposed work addresses problems that may be partially outside those encompassed by standards or codes of practice. (Methodology)**

***SK1 - A systematic, theory-based understanding of the natural sciences applicable to the sub-discipline and awareness of relevant social sciences**

***SK2 - Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed consideration and use of models applicable to the sub-discipline**

***SK3 - A systematic, theory-based formulation of engineering fundamentals required in an accepted sub-discipline**

***SK4 - Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for an accepted sub-discipline**

***SK5 - Knowledge, including efficient resource use, environmental impacts, whole-life cost, re-use of resources, net zero carbon, and similar concepts, that supports engineering design and operations using the technologies of a practice area**

***SK6 - Knowledge of engineering technologies applicable in the sub-discipline**

***SK7 - Knowledge of the role of technology in society and identified issues in applying engineering technology such as public safety and sustainable development²**

***SK8 - Engagement with the current technological literature of the discipline and awareness of the power of critical thinking**

***SK9 - Ethics, inclusive behavior and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes**