

## Marking Scheme and Rubrics

### Assessment of Minor/Major Project

S. No.	Agenda	Review Assessment Weightage	Assessment	Review Assessment Weightage	Total Marks
1.	Project Synopsis	5	Rubric R1	12.5% (5)	40
2.	First Defense	10	Rubric R2	25% (10)	
3.	Second Defense	10	Rubric R3	25% (10)	
4.	Final Report Submission	15	Rubric R4	37.5.% (15)	
5.	External Evaluation	60			60
Total Marks					100

### Rubrics for synopsis evaluation

Rubric	Marks	Very Poor Up to 20%	Poor Up to 40%	Average Up to 60%	Good Up to 80%	Very good Up to 100%
Articulate problem statements and identify objectives- <b>GA</b>	10	Problem statement and objectives are not identified	Problem statement and objectives are not clear	Problem statement is clear and objectives are not in line with problem Statement	Problem statement is clear and objectives are not completely defined.	Problem statement is clear and objectives are Completely defined
Identify existing processes/solution/ methods for solving the problem, including forming justified approximations and assumptions- <b>GA</b>	10	Not able to Identify existing solution for solving the problem. The assumptions, approximations and justifications are also not identified.	Not able to identify existing solution for solving the problem. The assumptions, approximations and justifications are identified but not clear	Not able to identify existing solution for solving the problem. Assumptions and approximations are aligned with the objectives.	Able to identify existing solution for solving the problem. Assumptions, and approximations are clear.	Able to identify existing solution for solving the problem. Assumptions, approximations and justifications are clear

### Rubrics for first defence

Rubric	Marks	Very Poor Up to 20%	Poor Up to 40%	Average Up to 60%	Good Up to 80%	Very good Up to 100%
Apply formal idea generation tools to develop multiple engineering design solutions- <b>GA</b>	10	Not able to identify tools to develop solutions	Able to identify but not able to use it effectively	Able to use the tool but not able to generate engineering designs	Able to generate engineering designs but not able to justify	Able to generate engineering designs with justification
Develop models of components/ systems using modern tools- <b>IA</b>	10	Not able to identify tools	Able to identify but not able to use tool	Able to use tool but not able to generate models	Able to generate models but not able to follow standards	Able to generate models with standards
Compare and contrast alternative solution processes to select the best process - <b>GA</b>	10	Not able to identify alternative solution processes	Not able to compare alternative solution processes	Able to compare alternative solution processes but could not contrast clearly	Able to compare alternative solution processes and contrast clearly but not able to select best process	Able to compare alternative solution processes, contrast it and also able to select best process

### Rubrics for second defence

Rubric	Mark s	Very Poor Up to 20%	Poor Up to 40%	Average Up to 60%	Good Up to 80%	Very good Up to 100%
Generate information through appropriate tests to improve or revise design - <b>GA</b>	10	Not able to identify suitable tests to be done	Able to identify but notable to follow testing procedure	Able to follow testing procedures but not able to collect information	Able to collect information but notable to apply it for improvement	Able to apply information for the improvement
Deliver effective oral presentations- <b>IA</b>	10	Could not deliver effective presentations.	Could not deliver presentation, but presentation was prepared and attempted.	Able to deliver fair presentation but notable to answer to the audience	Deliver effective presentations but able to answer partially to the audience queries.	Deliver effective presentation and able to answer all queries of the audience.
Present results as a team, with smooth integration of contributions from all individual efforts – <b>GA+IA</b>	10	No Contribution from an individual to a team	Contributions from an individual to a team is minimal	Contributions from an individual to a team is moderate	A contribution from an individual to a team is good but not well groomed in team.	Contribution from an individual to a team is good and results in an integrated team presentation.
Build models/ prototypes to develop solutions - <b>IA</b>	10	Not able to identify tool to build model/prototype	Able to choose the tool but not able to use it effectively	Able to use the tool but not able to generate alternatives	Able to generate alternatives but notable to justify the best solution	Able to generate and justify the best solution

### Rubrics for final defence

Rubric	Marks	Very Poor Up to 20%	Poor Up to 40%	Average Up to 60%	Good Up to 80%	Very good Up to 100%
Identify the shortcomings in the project and suggest specific improvements . - <b>IA</b>	10	No attempt is made to identify any short comings of the project	An attempt is made to identify shortcomings, but they are described vaguely and no specific suggestions for improvements are made.	Some shortcoming sare identified, but they are described vaguely and no specific suggestions for improvements are made.	Some shortcomings are identified and some improvements are suggested, but not all aspects of the design are considered	All major shortcomings of the experiment are identified and specific suggestions for improvement are made.
Able to be have with highest ethical standards.- <b>IA</b>	10	No references are mentioned, work is copied and the role of each team member is not explicitly stated.	The list of references is incomplete or does not appear in a standard professional format but the role of each team member is explicitly stated. Work is partially copied from others.	The list of references is incomplete but appear in a standard professional format and the role of each team member is explicitly stated. Work is partially copied from others.	A standard professional list of references is used to credit work from other sources but the role of each team member is not explicitly stated. Work is referred from others but not copied	A standard professional list of references is used to credit work from other sources and the role of each team member is explicitly stated. Work is referred from others but not copied
Able to write a concise project brief.- <b>GA</b>	10	Project brief is either very long, very short or badly formatted.	Project is of suitable length but not formatted is vague, misleading, or conceptually wrong.	Project brief is of suitable length , nicely formatted but is vague, misleading, or conceptually wrong.	Project brief has suitable length and format. It is clear, precise, and technically sound but contains some linguistic errors	Project brief has suitable length and format. It is grammatically correct, clear, precise and technically sound.