



<b>Part A: Scientific Thought - 50%</b>			<b>Mark</b>
<b>Experiment</b> An investigation undertaken to test a scientific hypothesis experimentally. The variables, if identified, are controlled to some extent.	<b>Innovation</b> The development and evaluation of innovative devices, models or techniques or approaches in technology, engineering or computers (hardware or software).	<b>Study</b> A collection and analysis of data to reveal evidence of a fact or a situation of scientific interest. It could include a study of cause and effect or theoretical investigations of scientific data.	
<b>Level 1 (low) Mark Range 5-15</b>			
Duplicate a known experiment to confirm the hypothesis. The hypothesis is totally predictable.	Build models (devices) to duplicate existing technology.	Study existing printed material related to the basic issue.	
<b>Level 2 (fair) Mark Range 15-25</b>			
Extend a known experiment through modification of procedures, data gathering and application.	Make new improvements to or demonstrate new applications for existing technological systems or equipment and justify them.	Study material collected through a compilation of existing data through personal- observations. Display attempts to address a specific issue.	
<b>Level 3 (good) Mark Range 25-40</b>			
Devise and carry out an original experiment. Identify and control some of the significant variables. Carry out an analysis using graphs or simple statistics.	Design and build innovative technology or provide adaptations to existing technology that will have human benefit and/or economic applications.	Carry out a study based on observations and literary research illustrating various options for dealing with a relevant issue. Include appropriate analysis (arithmetic, statistical, or graphical) of some significant variable(s).	
<b>Level 4 (excellent) Mark Range 40-50</b>			
Devise and carry out original experimental research which attempts to control or investigate most significant variables. Include statistical analysis in the treatment of data.	Integrate several technologies, inventions or designs and construct an innovative technological system that will have human and/or commercial benefit.	Correlate information from a variety of significant sources which may illustrate cause and effect or original solutions to current problems through synthesis. Identify significant variable(s) with an in-depth statistical analysis of data.	

<b>Part B: Original Creativity - 33%</b>			
<b>Rank 1 (low)</b> <b>Mark Range 5-15</b>	<b>Rank 2 (fair)</b> <b>Mark Range 15-21</b>	<b>Rank 3 (good)</b> <b>Mark Range 21-27</b>	<b>Rank 4 (excellent)</b> <b>Mark Range 27-33</b>
Little imagination shown. Project design is simple with minimal student input. A textbook or magazine type project.	Some creativity shown in a project of fair to good design. Standard approach using common resources or equipment. Topic is a current or common one.	Imaginative project, good use of available resources. Well thought out, above ordinary approach. Creativity shown in design and/or use of materials.	A highly original project or a novel approach. Shows resourcefulness, creativity in design. Use of equipment and/or construction of project.
<b>Mark:</b>			