

## Test 1 – Solution - Research Methodology and Presentation Skills

### Question 1

	<u>Basic Research</u>	<u>Engineering R&amp;D</u>
Goal:	New knowledge	Generate a new product
Commercial value:	No	Yes
Support:	From government	Private Company
Apply to:	General	Specific
Output:	Publication	Patent

### Question 2

Null Hypothesis –  $H_0$  – Claim: No new findings, until new proof arises.

Ex: The new invention will have the same characteristics, unless proven to be different.

Alternative Hypothesis –  $H_1$  – Claim: There will be new outcomes, unless new proof arises.

Ex: The new invention will have different characteristics, unless proven to be the same.

### Question 3

1. Understand the status
2. Learn from other professionals
3. Look for new opportunities
4. Assess research methods
5. Justify the proposal

### Question 4

- i.  $\pi$ : 3.141.....
- ii. 1, 2, 3, .....
- iii. red, green, blue
- iv. very low, low, average, high, very high

### Question 5

In one research project, it contains both quantitative research and qualitative research

1. Quantitative then Qualitative
2. Qualitative then Quantitative
3. Quantitative & Qualitative in parallel