COMP313 – Project Management

Exercise 7 (Project Quality Management)

1. Quality is commonly defined based on two conditions. Describe the two conditions.
   - **Conformance to requirements**: the project's processes and products meet written specifications
   - **Fitness for use**: a product can be used as it was intended

2. Give an inherent characteristic or function and a relevant quality for each of the following products.
   a. Sport car
      - Racing; Pickup speed, acceleration, safety …
   b. Commercial flight
      - Transportation; safety, speed, comfortability, …
   c. Safe
      - Storing valuable items; Robustness, security, durability, …
   d. Slot game (from both the Casino's perspective and player's perspective)
      - An instrument for business; Profitability, attractiveness, reliability, security, …
      - Entertainment and betting machine; Entertaining, attractiveness, trustworthiness…
   e. Smart phone
      - Communication; Performance, voice quality, …
   f. e-Payment app
      - Online payment; security, user-friendliness;

3. Differentiate Quality assurance and Quality control by giving any 3 features.

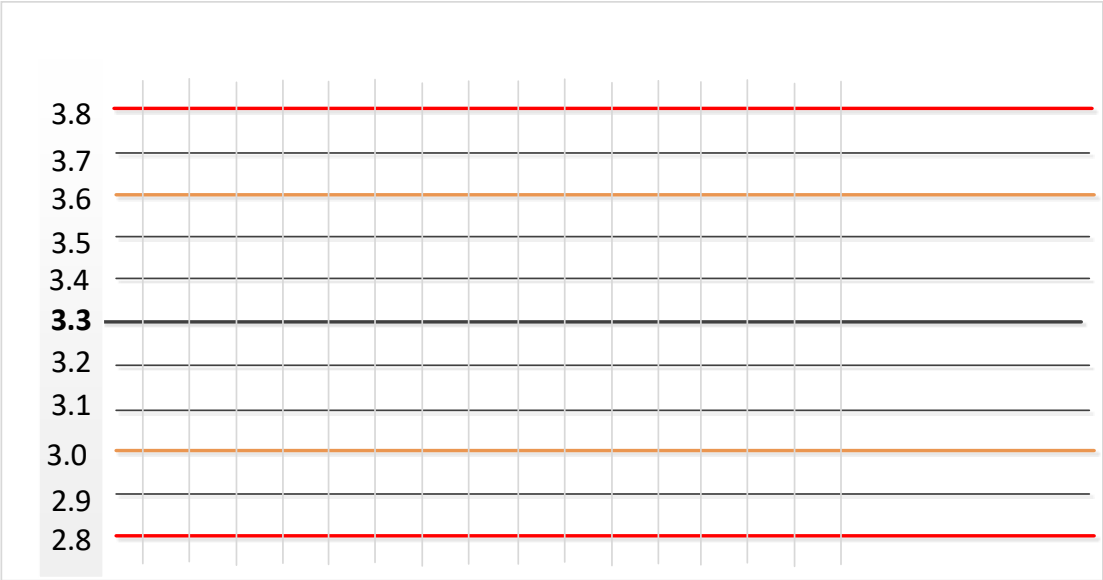
Quality Assurance	Quality Control
Focuses on defect prevention	Focuses on defect inspection & correction
Ensures process quality	Ensures product quality
Improves product quality by improving test process	Improves product quality by testing on products

quality	
To achieve, need a good quality management and auditing system	To achieve, find and eliminate product quality problems
Audit QC info, establish standards, plan for improvement	Inspect, perform test

4. You are the project manager involves in a project for printing a thousand drinks. One of the quality attributes is sweetness. Assume that you have the equipment to check and record the degree of sweetness (in terms of gram per 330ml drink) of all the drinks produced. Based on the table (a snap shot of the entire record) below, draw a quality control chart and point the situations (point or set of points) deemed to be out of control. Explain what you should do to follow up these situations. Given the following metrics:

- Upper specification limit = 3.8;
- Upper control limit = 3.6
- Mean = 3.3
- Lower control limit = 3.0
- Lower specification limit = 2.8

drink	***sweetness***	***drink***	***sweetness***	***drink***	***sweetness***
1	3.1	**6**	3.5	**11**	3.4
2	3.2	**7**	3.55	**12**	3.7
3	3.4	**8**	3.4	**13**	3.85
4	3.5	**9**	3.35		
5	3.4	**10**	3.2		



(see PPTs)

5. Your company has developed a web site and launched it for a few months. So far, you have collected comments and complaints from users. The problems are summarized in the following table:

#	***problem***	*#*	***problem***
12	Spelling errors	25	Broken links
8	Broken images	10	Fonts too small
9	No warning messages	3	Missing titles
5	Script errors	3	Browser compatibility
2	Too colorful	5	Navigation instructions not clear

Draw a Pareto Chart based on the figures above to identify the problems that requires immediate attention for minimizing the number of complaints as much as possible.

(see PPTs)