

第一部份

(甲、丙組)

國立成功大學八十三學年度工設所碩士班入學考試(設計方法 試題) 共 2 頁
第 1 頁

- (9) 一、一般說來，設計的型態分為三種，分別為原創型設計 (Original Design)，適應型設計 (Adaptive Design)，及變異型設計 (Variant Design)，試說明這三種設計型態的特性？
- (10) 二、產品設計中，對設計問題的界定應如何著手？
- (12) 三、Christopher J. Jones 在設計方法 (Design Methods) 一書中指出，依設計師在一般設計過程中的表現，可將設計方法分為三種類型，試論設計師在這三種類型中所扮演的角色？
- (9) 四、試論產品設計中，如何有效運用價值分析 (Value Analysis) 對產品各構件間的功能 (Function) 予以界定，以確認設計問題的發展方向？
- (10) 五、試說明形態箱 (Morphological Box) 與形態樹 (Morphological Tree) 發展上之異同點？

(六) The development of "Systematic methods for designers" is very unknown in the industry and the systematic methods have nearly never been applied. That is why we want to spend some time to promote its usage.

Your assignment as a designer is mainly "Problem Solving" and will get pay according to how well and how quickly you are doing it. Of course, you can say that many methods of problem solving exist, but the methods which are based on logic (clear thinking) have many advantages compared with these methods, which are only based on intuitive feeling.

However, before going any further step, you will be assigned a design project, which includes some requirements as follows,

- 1.0) Design Project: To design a device which may perform a specified function of WRITING.
- 2.0) The design project should include statements such as, design objectives, design constraints, and design criteria. (10%)
- 3.0) The design project should include PROCESS of at least three stages, i.e. Design Research, Design Evaluation, and Design Finalization.(15%)
- 4.0) The design project should include information which developed in 3.0, and which you may use charts, for instance, and maybe diagrams to describe whatever signified. (15%)
- 5.0) The design project should include some idea sketches and 3-D drawings which you have developed in 3.0. (10%)
- 6.0) Some of the drawings which you have developed in 3.0 should indicate their dimensions designated.
- 7.0) Any communication and/or presentation tool such as verbal text, sketch, drawing, figure, diagram, chart, graph, and so on will be allowed to use to describe whatever signified.