

IE-341

Section 2, CRN: 56070/071/072

Second Semester 1436-37 H (Spring-2016) – 3(2,1,2)

“HUMAN FACTORS ENGINEERING”

Wednesday, February 24, 2016 (15/05/1437H)

Quiz 1 ANSWERS

Name:	Student Number:
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**Answer briefly each of the following questions.**

1. Name *three* compatibility types. [2 points]

Conceptual compatibility

Spatial compatibility

Movement compatibility

Modality compatibility

2. Name *three* effects of having compatible systems. [2 points]

Faster learning

Faster reaction/response time (RT)

Less errors

Higher user satisfaction

3. Name *one* effect of using non-compatible systems. [1 point]

Higher information processing burden on user

User may make incorrect response (especially under stress)

4. Name *one* special consideration that should be noted for compatibility relationships. [1 point]

Some compatibility relationships are stronger than others

Sometimes one compatibility relationship should be violated to make use of another one

5. Examine the *Fitts and Seeger* study schematic shown below.

- What type of compatibility is examined here? [1 point]  
**Spatial compatibility (physical similarities of displays and controls)**
- Which stimulus-response panel combinations are compatible? [2 points]  
 **$S_a - R_a, S_b - R_b, S_c - R_c$**
- Mention two performance measures for this experiment. [1 point]  
**Reaction time (sec)**  
**Errors (percent)**  
**Information lost (bits)**

