The due date for submitting this assignment has passed. Due on 2018-02-05, 23:59 IST.

Submitted assignment

1) The basic principles of experimental design are
   - (i) randomization, repetition, blocking
   - (ii) repetition, randomization, factorization
   - (iii) replication, blocking, randomization
   - (iv) Optimization, blocking, factorization
   
   **No, the answer is incorrect.**
   
   **Score: 0**
   
   **Accepted Answers:**
   - (ii) replication, blocking, randomization

2) The principle used in dealing with controllable nuisance factor is
   - (i) blocking
   - (ii) analysis of covariance
   - (iii) analysis of variance
   - (iv) process robustness
   
   **No, the answer is incorrect.**
   
   **Score: 0**
   
   **Accepted Answers:**
   - (i) blocking

3) The analysis procedure used for experimental data with uncontrollable and measurable nuisance factor is
   - (i) blocking
   - (ii) analysis of covariance
   - (iii) analysis of variance
   - (iv) none of these
   
   **No, the answer is incorrect.**
   
   **Score: 0**
   
   **Accepted Answers:**
   - (ii) analysis of covariance

4) A factor that varies naturally and uncontrollably in the process but can be controlled for purposes of an experiment, is often called as
   - (i) confounding factor
   - (ii) noise factor
   - (iii) design factor
   
   **No, the answer is incorrect.**
   
   **Score: 0**
   
   **Accepted Answers:**
   - (iii) design factor
2 points

5) The study which helps one to understand the conditions under which response variables of interest change seriously is

- (i) optimization
- (ii) randomization
- (iii) replication
- (iv) robustness

No, the answer is incorrect.
Score: 0
Accepted Answers:
(iv) robustness

Questions 6-9 are based on the following case:

Consider the following mathematical model

\[ y = f(x, z) \]
\[ \Delta y = \frac{\partial f}{\partial x} \Delta x + \frac{\partial f}{\partial z} \Delta z \]

6) Determining the most influential variables on the response \( y \) is called

- (i) Process optimization
- (ii) Process control
- (iii) Robust design
- (iv) Process Characterization

No, the answer is incorrect.
Score: 0
Accepted Answers:
(iv) Process Characterization

7) Determining the \( x \) variability that effects on \( y \) variability is called

- (i) Process optimization
- (ii) Process control
- (iii) Robust design
- (iv) Process Characterization

No, the answer is incorrect.
Score: 0
Accepted Answers:
(ii) Process control

8) Determining the optimized \( x \) variability so that the variability of \( y \) is small is called

- (i) Process optimization
- (ii) Process control
- (iii) Robust design
- (iv) Process Characterization

No, the answer is incorrect.
Score: 0
Accepted Answers:
(i) Process optimization
9) Determining the variability so that the effects of the uncontrollable variables are minimized is called

   (i) Process optimization  
   (ii) Process control 
   (iii) Robust design 
   (iv) Process Characterization

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(iii) Robust design

10) An independent repeat run of each factor combination is called

   (i) Replication 
   (ii) Randomization 
   (iii) Blocking 
   (iv) Repeated measurement

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(i) Replication