



Try in all questions

Question (1)

(30 marks)

- a) State the different types of monitoring techniques?
- b) What are the measuring techniques and instrumentations used for geometrical monitoring of deformation ?
- c) Mention the task's which are includes in the design of monitoring scheme?
- d) What are the analyses of deformation surveys include?

Question (2)

(30 marks)

- a) What are the purposes of monitoring survey ?
- b) When designing the monitoring network what are the purposes of the monitoring surveys?
- c) Talk about the environmental influences and ignorance of users which affect the accuracy of deformation surveys ?
- d) The monitoring networks can be divided into two categories, state them with draw?

Question (3)

(40 marks)

- a) Describe the deformation theory?
- b) What are the advantage of automatic data acquisition system ?
- c) Compare between desirable characteristics of an automated system and desirable characteristics of data management system for deformation surveys including both (geotechnical & geodetic observations) ?
- d) What are the causes of earth deformation?

With my best wishes **Prof. Dr / Mohamed Ismail Doma**