Aalto University School of Engineering Geoengineering/EMC

Rak-32.3510 APPLIED ROCK MECHANICS FOR HARD ROCK MINING Exam, 2012-10-05

Part 1, questions without course material

- 1) Define types of failure which may occur in different rock masses under low and high in situ stress levels (6 p).
- 2) Describe three relevant methods to detect and monitor instability of large slopes (3 p). Suggest three actions to improve stability of a rock slope (3 p).
- 3) Describe conditions when use of cable bolts is motivated (3 p).
- 4) How does backfill work as a support medium (3 p)?
- 5) What components are shotcrete made of (3 p)? Why additives are used (3p)?