

Mak-32.317 APPLIED ROCK MECHANICS FOR HARD ROCK MINING
Examination 26.10.2003, 12:00 - 15:00, Hall V1

Part 1, questions without course material

1. Select suitable rock bolt for a 6 x 5 m main ramp which will be used at least 50 years:
 - dominant rock type is granite with blocky structure
 - required minimum bolt length is 2.5 m
 - bolt spacing will vary with local conditions
 - local minor inflow of groundwater
 - some instant support and mechanized installation preferred

Explain the reasons for your selection.

Describe the structure and installation procedure of the selected bolt (12 p)

2. a) Explain the three modes of support of mine backfill. (9 p)
- b) In conventional cut and fill mining, the backfill is your working platform. What operational problems too weak backfill can produce? (3 p)