Surveying – BMEEOAFS701
Questions to prepare for the 1st test

Topics of the 1st midterm test. Try to answer each and every question using keywords. Drawing a figure is preferable to a long text. Short lists are also welcome. Find the answers using your own lecture notes. If you cannot find them despite having attended almost all the lectures do not hesitate to get in touch with the lecturer.

1. Main applications of land surveying in architecture
2. Advantages of geodetic networks
3. Examples of establishing horizontal control points
4. Most common type of vertical benchmarks
5. Map projections categorized by projection surface
6. Typical detail points on large scale maps
7. List of methods for getting horizontal position
8. Present the principle of horizontal positioning techniques with sketches
9. Known and measured quantities of horizontal positioning methods
10. Pros and cons of different horizontal positioning techniques
11. Definition of the reduced level
12. Methods for measuring height differences
13. Principle of levelling
14. Principle of trigonometric heighting
15. Measuring the height of a building using theodolites Draw a sketch and give the measured quantities as well as the main formulas.
16. Applications of levelling
17. Most important rules of levelling
18. Systematic error sources of levelling
19. Steps of tacheometry
20. Methods to determine the height of collimation
21. Main parts of a total station
22. Sketch or point coding?
23. Principle of GPS positioning
24. Electrooptical distance measurements, measured quantities and their relation to the distance
25. Differences between the GPS units used in everyday navigation and land surveying
26. Principle of laser scanning and its main applications
27. Definition of scale
28. Classification of maps by their scale. Typical scale values.
29. Steps of developing a digital plan
30. Requirements of digital maps
31. Requirements of symbols on maps
32. Way of representing topography

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