

The exam consists of two parts:

- A. Theory, questions (60 minutes) – You are not allowed to use your course notes, 76%  
B. Practical part (75 minutes) – You are encouraged to use your notes, 24%.

### A. Theory 76%

1. Explain the terms K- and r-strategies for primary producers. Examples, reproduction, diversity, environment. (4)
2. Explain the different types of wall structures in foraminifera, examples? (5)
3. What are calcispheres? Examples. (3)
4. Shortly explain the following terms used for dinoflagellates: cyst, theca, proximate and chorate cyst. (4)
5. Give examples (genera) of the four different groups of large sized foraminifera, describe their taxonomic affiliations (orders), age and ecology. (12)
6. Describe the systematics, the habitat and the ecological importance of benthic and planktonic foraminifera (10).
7. Explain the function of marine primary producers for the food chain (6).
8. What are the palaeoecological implications of mass-occurrences of diatoms? (4)
9. On which criteria is the taxonomy of fossil ostracods based on? (6)
10. Which role do nutrients and energy play for the distribution of coccoliths, radiolarians and silicoflagellates? Where in our current oceans do you find these sediments? (10)
11. Describe the ecological preference of agglutinated and calcareous benthic foraminifera. (6)
12. Used the attached page to date a sedimentary sequence by using biostratigraphy. (6)

Maximal erreichbare Punktzahl: 100

Wiederholungsklausur: Donnerstag, 19.4.2012, 9.15-10.4, 04/750 (auf Aushang achten).



**B. Practical (24%)**

1. Sample:

Sample no.:

Stratigraphy:

Please list at least 6 genera, different from those listed for sample 2.

Give for each genus: 1. A sketch, 2. the systematic affiliation of each genus following this outline: phylum - class - order - superfamily or family - genus, wall material, 3. morphological features, 4. ecology/habitat.

2. Sample:

Sample no.:

Stratigraphy:

Please list at least 6 genera, different from those listed for sample 1.

Give for each genus: 1. A sketch, 2. the systematic affiliation of each genus following this outline: phylum - class - order - superfamily or family - genus, wall material, 3. morphological features, 4. ecology/habitat.