

103
1B5N22230

(Pages : 2)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester Integrated M.Sc. Geology Degree Examination, November 2022
GL05ID01-Geoscience and Environment

(2020 Admission onwards)

Time: 2 hours

Max. Marks: 60

(Draw neat sketches, wherever necessary)

PART – A

Answer *all* questions.

Each question carries Two mark.

Ceiling -20 Marks

1. What is palaeontology?
2. Define mud streams.
3. Describe the agents of weathering.
4. What is *Nuecardente*?
5. Distinguish *Tuff* and *Ignimbrite*
6. What are the zones of groundwater?
7. What is perched water level?
8. Define solifluction.
9. What is open well and bore well?
10. What is glacier?
11. What is intensity and magnitude of earthquake?
12. What is ozone depletion?

PART - B

Answer *all* questions.

Each question carries **Five** marks.

Ceiling -30 Marks

13. Explain different types of weathering
14. Write a short note on structure of the Earth and its major discontinuities
15. What is Landslide? Explain different types of landslides.
16. What is waste disposal? What are the different methods for waste disposal?
17. Discuss about the greenhouse gases and its effects on climate change.
18. Briefly write about hydrological cycle with help of a diagram.
19. Discuss different types of moraines.

PART - C

Answer *anyone* questions.

Each question carries **Ten** marks.

20. Write about land, air and water pollution and its causes and effects.
21. What are Volcanoes? Explain the types, components, distribution and products of volcanoes.

1 x 10 = 10 Marks

1B5N22225

(Pages : 2)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester Integrated M.Sc. Geology Degree Examination, November 2022
GL03A11 - Biodiversity – Scope and Relevance

(2020 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

(Draw neat sketches, wherever necessary)

PART – A

Answer all questions.

Each question carries Two mark.

Ceiling -25 Marks

1. Define Biodiversity.
2. Which are the four hotspot of India?
3. What is endemic species?
4. What are the components of biodiversity values?
5. What is agrobiodiversity?
6. Write about the need of monitoring and inventorying.
7. What are the ethical and aesthetical values of Biodiversity?
8. What is called monitoring of biodiversity?
9. Why wild relatives of cultivated plants and domesticated animals are important?
10. What is seed bank?
11. Write about the types of bioprospecting.
12. What is microbiological culture?
13. What is umbrella species?
14. What is species abundance and species richness?
15. What is Deterministic processes of species extinction?

PART – B

Answer *all* questions.

Each question carries Five marks.

Ceiling -35 Marks

16. Write a short note on Species Biodiversity.
17. What are the applications of Bioprospecting?
18. Discuss loss in ecosystem diversity.
19. Briefly write about In-situ conservation of Biodiversity
20. Discuss about the impact of climate change on different ecosystem.
21. Discuss the factors Causing loss of genetic diversity
22. How the IUCN Red List classifies the species?
23. Write about the magnitude of fungal, bacterial and protist diversity

PART - C

Answer any *two* questions.

Each question carries Ten marks.

24. Hotspot of Indian Biodiversity.
25. Discuss about the Plant Biodiversity.
26. Why India is a mega biodiversity nation?
27. Briefly explain the measurement techniques of genetic biodiversity.

2 x 10 = 20 Marks

1B5N22226

(Pages : 2)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester Integrated M.Sc. Geology Degree Examination, November 2022
GL03A12-Research Methodology

(2020 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

(Draw neat sketches, wherever necessary)

PART – A

Answer *all* questions.

Each question carries **Two** mark.

Ceiling -25 Marks

1. How Impact Factor is calculated?
2. Describe peer-reviewed journals.
3. Define Google Scholar.
4. Role of mixed methods in research.
5. What are the different types of magazines?
6. Give some examples of earth science journals
7. What do you mean by predatory journals?
8. Distinguish between methodology and methods?
9. What is ISSN Number?
10. Describe the limitations of a statistical table?
11. Explain the role of bibliography in a thesis
12. What type of literature is short communication?
13. Define SPSS. Explain its uses in research.
14. What are open access journals?
15. Differentiate between hypothesis and law in research.

PART – B

Answer *all* questions.

Each question carries **Five** marks.

Ceiling -35 Marks

16. Write a note on paper presentation in a conference.
17. Differentiate between the quantitative and qualitative research methods.
18. What is a work plan? What are the steps to create an effective work plan for the conduct of research?
19. Explain the various factors needs to consider before choosing the research methodology.
20. What is the significance of review of literature in research?
21. Define Journal articles. Give an explanatory note on types of journal articles.
22. Explain selection of topic for a research.
23. Distinguish observational and experimental research.

PART - C

Answer any *two* questions.

Each question carries **Ten** marks.

24. What is a Thesis? Which are the different components of a thesis?
25. Give an account on manuscript preparation. Explain in detail about structure of a manuscript.
26. Explain about the selection of journals for publication. Write a note on different types of Plagiarism in research.
27. What is a research project proposal? What are the different components of a project proposal?

2 x 10 = 20 Marks

1B5N22227

(Pages : 2)

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Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester Integrated M.Sc. Geology Degree Examination, November 2022
GL04A13-Natural Resource Management

(2020 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

(Draw neat sketches, wherever necessary)

PART – A

Answer *all* questions.

Each question carries **Two** mark.

Ceiling -25 Marks

1. What are the different types of natural resources?
2. Define biodiversity.
3. Define biotic and abiotic natural resources.
4. What is Lagoon-type estuary?
5. What is neritic zone?
6. Define *oligotrophic*, *mesotrophic*, *eutrophic* and *hypertrophic* lakes.
7. Purpose of Vienna Convention.
8. Define Montane wet temperate forest
9. Classification of organisms based on lifestyle
10. What do you mean by biodiversity hot-spot?
11. Define beach forest.
12. What do you mean by Carbon footprint?
13. Distinguish lentic and lotic ecosystem?
14. What is sustainable utilization?
15. Define deforestation.

PART – B

Answer *all* questions.

Each question carries **Five** marks.

Ceiling -35 Marks

16. What are the threats of natural resources? Give a note on conservation of natural resources.
17. Briefly explain the different types of Tropical moist forests.
18. What do you mean by soil degradation? Explain the triggering factors and causes of soil degradation.
19. Discuss in detail about the different types of land utilisation.
20. Describe water cycle with neat sketches. Write a note on lakes and its classification.
21. Write a note on bioprospecting derived resources
22. Explain in brief various steps and processes of EIA.
23. What are the major zones in the Ocean?

PART - C

Answer any *two* questions.

Each question carries **Ten** marks.

24. What is Ramsar Convention? Give a detailed account on Wetlands, types of wetlands and threats to wetland ecosystem.
25. Give an account on National and international efforts in natural resource management and conservation.
26. Write a detailed essay on 'Applications of Remote sensing and GIS' in Natural resource management.
27. Explain sustainable utilization? Give an account on ecological, economic and socio cultural sustainability.

2 x 10 = 20 Marks

1B5N22228

(Pages : 2)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester Integrated M.Sc. Geology Degree Examination, November 2022

GL04A14 - Intellectual Property Rights

(2020 Admission onwards)

Time: 2 ½ hours

Max. Marks: 80

(Draw neat sketches, wherever necessary)

PART – A

Answer *all* questions.

Each question carries **Two** mark.

Ceiling -25 Marks

1. What is domain name?
2. Define IPR?
3. How long does the protection on trademark and patent last?
4. What is the World Intellectual Property Organization?
5. What is the possibility of micro-biological processes patentability in India?
6. What is meant by well-known marks with example?
7. What is Berne convention?
8. List out the examples of Indian Geographical Indications?
9. What is meant by the term of copyright?
10. What is the difference between copyright and design?
11. What is infringement?
12. What is a trade secret?
13. How industrial design is protected?
14. What is patent information?
15. How new plant varieties are protected?

PART – B

Answer *all* questions.

Each question carries **Five** marks.

Ceiling -35 Marks

16. Briefly explain the typical parts of a patent application?
17. Explain TRIPS and their functions?
18. What is domain name and their relationship with trademark?
19. Briefly explain the functions and need of IPR?
20. What are different types of trademarks?
21. How to patent biological inventions?
22. Briefly explain the filing of a patent?
23. What are the types of works protected by copyright?

PART - C

Answer any *two* questions.

Each question carries **Ten** marks.

24. Explain geographical indication? Discuss the procedure for registration of geographical indications? Why its protected?
25. What are the various forms of IPR? Explain different IPR acts amended in India?
26. What is patent document? Explain different searches using patent documentation?
27. Explain Industrial designs? How can be it protected? Why its protected?

2 x 10 = 20 Marks

108
1B5N22229

(Pages : 2)

Reg. No:.....

Name:

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fifth Semester Integrated M.Sc. Geology Degree Examination, November 2022
GL05IB08- Structural Geology And Geotectonics

(2020 Admission onwards)

Time: 2 hours

Max. Marks: 60

(Draw neat sketches, wherever necessary)

PART – A

Answer *all* questions.

Each question carries Two mark.

Ceiling -20 Marks

1. How shear zone is related to fault?
2. What is the significance of linear structures?
3. Write about slickensides and their importance?
4. What are mural joints?
5. Explain diapir fold?
6. Define nonconformity with example?
7. What are mullions?
8. Define Throw and Heave?
9. Define hinge and Axial planes of fold?
10. Write a short note about origin of joints?
11. What is Normal stress and shear Stress?
12. Give equations for young modulus & poisons ratio.

PART – B

Answer *all* questions.

Each question carries Five marks.

Ceiling -30 Marks

13. Discuss about the various stages of deformation with the help of a graph.
14. Describe continental drift, sea floor spreading, hot spot and mantle plumes.
15. Explain different types of structural fabric?
16. What are the identification criteria of fault in the field?
17. What are the different types of unconformity?
18. Explain the structural sedimentary pattern related to eustatic sea level.
19. Give few concepts that led to modern plate tectonic theory

PART - C

Answer *anyone* questions.

Each question carries **Ten** marks.

20. Describe a fold. Explain the classification of folds with neat sketches
21. Discuss the various geological structures and its origin associated with different plate boundaries.

1 x 10 = 10 Marks