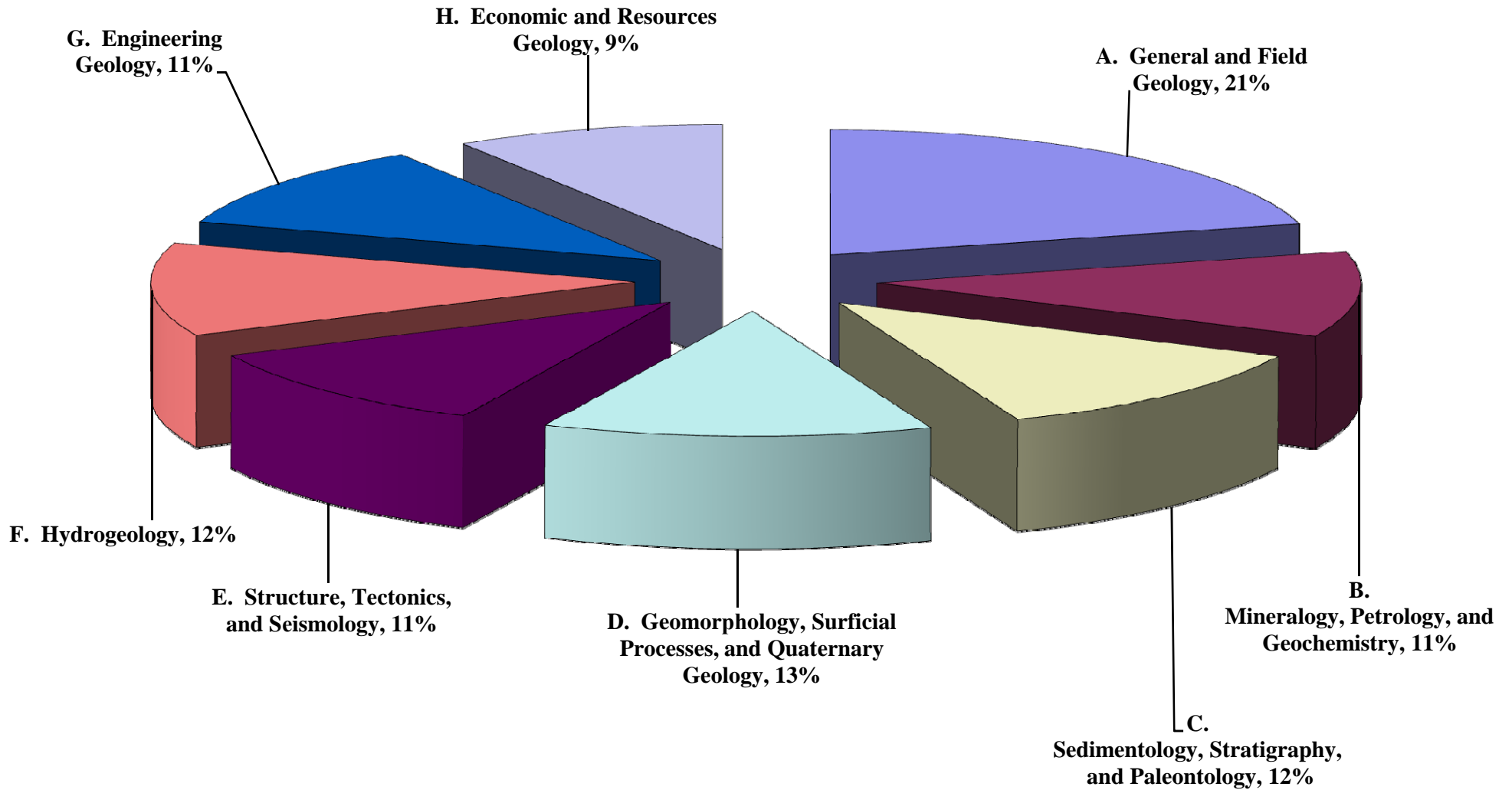


**Table 1 - ASBOG[®] Task Analysis 2015
FG Test Blueprint**

| | No. Task Statements | FG Test Blueprint (TAS 2015) |
|----|--|---|
| | A. General and Field Geology - 21% | |
| 1 | Plan and conduct geological investigations considering human health, safety, and welfare, the environment, regulations, professionalism and ethics, and Quality Assurance/Quality Control (QA/QC). | 6 |
| 2 | Compile and organize available information to plan geological investigations. | 6 |
| 3 | Collect, describe, and record new geological and geophysical data. | 6 |
| 4 | Determine positions, scales, distances, and elevations from remote sensing, imagery, surveys, sections, maps, and GIS. | 6 |
| 5 | Prepare, analyze, and interpret logs, sections, maps, and other graphics derived from field and laboratory investigations. | 6 |
| | B. Mineralogy, Petrology, and Geochemistry - 11% | |
| 7 | Identify minerals and rocks and their characteristics. | 5 |
| 8 | Identify and interpret rock and mineral sequences and associations, and their genesis. | 4 |
| 9 | Evaluate geochemical and isotopic data and construct geochemical models related to rocks and minerals. | 3 |
| 10 | Determine type, degree, and effects of rock and mineral alteration. | 3 |
| | C. Sedimentology, Stratigraphy, and Paleontology - 12% | |
| 12 | Select and apply appropriate stratigraphic nomenclature and establish correlations. | 4 |
| 13 | Identify and interpret sedimentary processes and structures, depositional environments, and sediment provenance. | 5 |
| 14 | Identify and interpret sediment and/or rock sequences, positions, and ages. | 5 |
| 15 | Identify fossils and interpret fossil assemblages for age, paleoenvironmental interpretations, and/or stratigraphic correlations. | 3 |
| | D. Geomorphology, Surficial Processes, and Quaternary Geology - 13% | |
| 17 | Identify, classify, and interpret landforms, surficial materials, and processes. | 5 |
| 18 | Determine absolute or relative age relationships of landforms, sediments, and soils. | 4 |
| 19 | Evaluate geomorphic processes and development of landforms, sediments, and soils, including watershed functions. | 5 |
| 20 | Apply remote sensing and GIS techniques to interpret geomorphic conditions and processes. | 4 |
| | E. Structure, Tectonics, and Seismology - 11% | |
| 22 | Identify and define structural features and relations, including constructing and interpreting structural projections and statistical analyses. | 4 |
| 23 | Interpret deformational history through structural and tectonic analyses. | 4 |
| 24 | Develop and apply tectonic models to identify geologic processes and history. | 3 |
| 25 | Evaluate earthquake mechanisms and paleoseismic history. | 4 |
| | F. Hydrogeology - 12% | |
| 27 | Define and characterize hydraulic properties of saturated and vadose zones. | 6 |
| 29 | Evaluate water resources, assess aquifer yield, and determine sustainability. | 6 |
| 30 | Characterize water quality and assess chemical fate and transport. | 6 |
| | G. Engineering Geology - 11% | |
| 33 | Identify and evaluate engineering and physical properties of earth materials. | 5 |
| 35 | Identify, map, and evaluate geologic, geomorphic, and seismic hazards. | 5 |
| 36 | Interpret land use, landforms, and geological site characteristics using imagery, maps, records, and GIS. | 5 |
| | H. Economic and Resources Geology - 9% | |
| 39 | Compile and interpret the data necessary to explore for mineral and energy resources. | 4 |
| 40 | Estimate the distribution of resources based on surface and subsurface data. | 4 |
| 42 | Determine quantity and quality of resources. | 4 |
| | Total Number of Items | 140 |

**Figure 1 - ASBOG[®] Task Analysis 2015
FG Test Blueprint - Domain Percentages**



**Table 2 - ASBOG® Task Analysis 2015
PG Test Blueprint**

| No. Task Statements | PG Test Blueprint (TAS 2015) |
|--|------------------------------|
| A. General and Field Geology - 20% | |
| 1 Plan and conduct geological investigations considering human health, safety, and welfare, the environment, regulations, professionalism and ethics, and Quality Assurance/Quality Control (QA/QC). | 5 |
| 2 Compile and organize available information to plan geological investigation | 4 |
| 3 Collect, describe, and record new geological and geophysical data | 4 |
| 4 Determine positions, scales, distances, and elevations from remote sensing, imagery, surveys, sections, maps, and C | 4 |
| 5 Prepare, analyze, and interpret logs, sections, maps, and other graphics derived from field and laboratory investigation | 5 |
| B. Mineralogy, Petrology, and Geochemistry - 5% | |
| 6 Plan and conduct mineralogic, petrologic, and geochemical investigations, including the use of field, laboratory, and analytical techniques | 3 |
| 10 Determine type, degree, and effects of rock and mineral alteration | 2 |
| C. Sedimentology, Stratigraphy, and Paleontology - 6% | |
| 11 Plan and conduct sedimentologic, stratigraphic, or paleontologic investigations, including the use of field, laboratory, and analytical techniques | 3 |
| 13 Identify and interpret sedimentary processes and structures, depositional environments, and sediment provenance | 3 |
| D. Geomorphology, Surficial Processes, and Quaternary Geology - 8% | |
| 16 Plan and conduct geomorphic investigations, including the use of field, laboratory, and analytical techniques | 3 |
| 19 Evaluate geomorphic processes and development of landforms, sediments, and soils, including watershed function | 3 |
| 20 Apply remote sensing and GIS techniques to interpret geomorphic conditions and processes | 3 |
| E. Structure, Tectonics, and Seismology - 8% | |
| 21 Plan and conduct structural, tectonic, or seismic investigations, including the use of field, laboratory, and analytical techniques | 3 |
| 23 Interpret deformational history through structural and tectonic analysis | 2 |
| 24 Develop and apply tectonic models to identify geologic processes and history | 2 |
| 25 Evaluate earthquake mechanisms and paleoseismic history | 2 |
| F. Hydrogeology - 19% | |
| 26 Plan and conduct hydrogeological, geochemical, and environmental investigations, including the use of field, laboratory, and analytical techniques | 5 |
| Design groundwater monitoring, observation, extraction, production, or injection well | 4 |
| 29 Evaluate water resources, assess aquifer yield, and determine sustainability | 4 |
| 30 Characterize water quality and assess chemical fate and transport | 4 |
| 31 Manage, develop, protect, or remediate surface water or groundwater resource | 4 |
| G. Engineering Geology - 19% | |
| 32 Plan and conduct environmental and engineering geological investigations, including the use of field, laboratory, and analytical techniques | 4 |
| 33 Identify and evaluate engineering and physical properties of earth material | 3 |
| 34 Provide recommendations for engineering design, land use decisions, environmental restoration, and watershed management | 4 |
| 35 Identify, map, and evaluate geologic, geomorphic, and seismic hazard | 3 |
| 36 Interpret land use, landforms, and geological site characteristics using imagery, maps, records, and GIS | 4 |
| 37 Develop plans and recommendations for hazard mitigation, and land and watershed restoration | 3 |
| H. Economic and Resources Geology - 15% | |
| 38 Plan and conduct mineral or energy resource exploration, evaluation, and environmental programs, including the use of field, laboratory, and analytical techniques. | 3 |
| 39 Compile and interpret the data necessary to explore for mineral and energy resources | 3 |
| 40 Estimate the distribution of resources based on surface and subsurface data | 3 |
| 41 Undertake economic evaluation and reserve assessment | 2 |
| 42 Determine quantity and quality of resources | 3 |
| 43 Perform geological studies for design, abandonment, closure, waste management, and reclamation and restoration of energy development or mineral extraction operations. | 3 |
| Total Number of Items | 110 |

**Figure 2 - ASBOG[®] Task Analysis 2015
PG Test Blueprint - Domain Percentages**

