

2019 USGO Written Examination - Key and Marking Scheme (Middle School)

Section 1 [15 points]

Grading notes: Questions 1, 2 and 3 are point marked, question 4 is level marked.

Expected answers:

1. [2 points per definition] flora - the plants of a particular region, habitat, or geological period; fauna - the animals of a particular region, habitat, or geological period; biodiversity - the variety of life in the world or in a particular habitat or ecosystem, including both flora and fauna [reasonable equivalents accepted]
2. [1 point per answer] changes in land and sea use; direct exploitation of organisms; climate change, pollution, and invasion of alien species [reasonable equivalents accepted]
3. [1 point per answer] any specific answer that involves reasonable federal government policies to mitigate climate change, regulate industry or development, or protect the environment is acceptable here
4. [3 points] Deforestation is the main cause of biodiversity loss in Brazil over the last 50 years; other causes mentioned include extensive use of land for agriculture, fires related to logging or agriculture, industry and pollution, and extensive construction projects [other reasonable answers accepted]

Section 2 [10 points]

Grading notes: Questions 1, 2 and 3 are point marked, questions 4 is level marked.

Expected answers:

1. [1 point] tundra
2. [1 point] boreal forest (do not accept taiga here as it is not on the diagram)
3. [1 point per answer] central Alaska – boreal forest; Adirondack Park – temperate forest; Baja California – chaparral; Borneo – tropical forest; Las Vegas – (hot) desert; Serengeti – grassland (do not accept savannah as it is not on the diagram)
4. [2 points] biomes with more precipitation and a higher temperature will have more vegetation, those with a higher temperature and very little precipitation will have less, also arctic temperatures produce very little vegetation [other reasonable formulations of this answer are acceptable]

Section 3 [10 marks]

Grading notes: All questions are point marked.

Expected answers:

1. [1 point per answer] F; F; F; T; F
2. [1 point per answer] intrusive [accept word forms, but really this is the precise term]; magma [do not accept lava because that is the extrusive form of magma]
3. [2 points] igneous and metamorphic [2 points all or nothing]
4. [1 point] sediment [do not accept sedimentary rock, because that is formed at D]

Section 4 [15 points]

Grading notes: Questions 2 and 4 are point marked, questions 1 and 3 are level marked.

Expected answers:

1. [2 points] Richter scale – a logarithmic scale formerly used to measure the strength and intensity of earthquakes (most scientists use different scales to measure intensity now) [accept reasonable formulations, award partial credit if necessary]
2. [1 point per answer] A – Haiti; B – Pakistan; C – Japan; D – Iran
3. [3 points] answers to this question may vary, but may include higher population density compared to other countries on the list, epicenters of earthquakes possibly being closer to populated areas, the relative poverty of these nations compared to some others on the list [other reasonable answers accepted, award partial credit if necessary]
4. [6 points] F; F; T; T; F; F

Section 5 [15 points]

Grading notes: All questions are point marked.

Expected answers:

1. [1 point per answer] population growth – A; highest life expectancy – B; shrinking population – B; 3% in 70s – C; 1.1% growth – C; lowest life expectancy – A
2. [1 point per answer] F; T; T; T; T; T
3. [1 point per answer] high median income; high access to healthcare; large urban population