Earth and Space Sciences

Original exam A, full-length form B and three-week preparation

Why these demands were selected

All five released forms contained 50 slots. January 2026 included a drifting cargo spill, glacial ice and Mount Morris Dam. Ten January clusters included a model word cue, six a graph cue and five a map cue. The June mean graph count was 5.5; August was 7.

One January. A named New York location is a useful practice setting, with little basis for predicting which place will anchor the exam. Distinguish information in a reference table from information in a supplied map.

Released forecast example

State design / administration guidance

Original exam A

Four sets, 8 multiple-choice and 4 written responses. Suggested time: 35–50 min; adjust to local conditions. Each selected response earns one local point. Each written response earns one point when the required components are present. Maximum 12 local points. Accept defensible alternative reasoning. Allow consistent follow-through where the local criterion assesses a new operation; annotate the originating error.

Full-length form B

Use the intact linked 2026-06 official booklet except 30. The insert preserves one response position and its maximum credit. Report the original-component subtotal and replacement result separately. State conversion charts are specific to the unmodified state form. Record prior exposure if students have used the released booklet in preparation.

Preparation and feedback

Use the six Studio sessions, then one new retrieval check per week. Use Form A as an independent transfer check after preparation. Form B is optional for full-length rehearsal. On return after absence, students can start with the re-entry line on the current week’s sheet. After testing, return to the first unsupported step in the student’s reasoning.

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Questions 1–6 • One point per selected response.

1 D • 2 h
The highest measured value occurs at 3 p.m., two hours after 1 p.m.

2 D • Replacing permeable soil with connected paved drains
Connected pavement and drains rapidly route surface water into channels.

3 Written response / 1 local point
• Water takes time to travel across or through the watershed to the gauge.
• Temporary storage spreads delivery over time, tending to reduce or delay the peak. Accept either defensible effect with a mechanism.

4 A • 2 cm/year
40 km per 2 million years is 20 km per million years, or 2 cm/year.

5 A • Crust becomes older away from the ridge on both sides.
The symmetric age pattern fits creation at the ridge followed by outward movement.

6 Written response / 1 local point
• Each side moves about 160 km in 8 million years.
• The pieces would be 320 km apart because the two outward motions add.

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Questions 7–12 • One point per selected response.

7 B • 6 days
Successive start times differ by six days; three hours is the duration.

8 B • It predicts dips at times with no observed dips.
Continuous coverage allows a test of the additional predicted dips.

9 Written response / 1 local point
• The next dip is predicted near day 26.
• A body passing between star and observer blocks a fraction of its light periodically; observe near day 26 for a dip of comparable timing and shape.

10 C • Deposition of H
D cuts H, so H had to exist before intrusion.

11 C • Marine deposition occurred at that site when L formed.
The fossils support interpretation of that layer’s environment without fixing every other layer’s age.

12 Written response / 1 local point
• S deposition, H deposition, D intrusion, erosion, then L deposition.
• Truncated units beneath L show erosion and a gap in preserved deposition; the duration of that gap is unknown.

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Replacement scoring and retrieval-check keys

Form B replacement / 30 / 1 credits maximum

Award one local point for two defensible system-change pairs, such as geosphere: less infiltration into soil; hydrosphere: faster delivery of runoff to the stream. Other accurate system names and distinct changes are acceptable.

Public scoring materials for base form

Week 1 / retrieval check

A stream peaks two hours after rain stops. Explain one plausible transport delay.
Water takes time to move from hillslopes or tributaries to the gauge.

Week 2 / retrieval check

A dike cuts a lava flow but ends at an erosion surface below a sediment bed. Order the events.
Flow, dike intrusion, erosion, then sediment deposition.

Week 3 / retrieval check

Dips occur on days 1, 6 and 11 and last 2 h. Predict the next dip and distinguish period from duration.
Day 16; period is five days, duration is two hours per dip.

Department follow-up

ESS-C1 Link a circulation change to weather
Trace the air movement toward the region. How does that change local conditions?

ESS-C2 Track two Earth systems
Where did the water go? Which second system gained or lost water, and by what process?

ESS-C3 Connect transit duration to a model
Point to each dip and read its duration. Which object is crossing which disk?

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Use the independent exam only after practice, or document the order if using it diagnostically.

Which preparation sessions lead into each exam set?

A1 · Tracing a storm through a basin / Studio session(s) 1,6

A2 · An ocean-floor transect / Studio session(s) 5

A3 · The star’s missing light / Studio session(s) 4

A4 · Reading a rock record / Studio session(s) 3

Likely reading of a partial response to investigate

The response gives a duration as the orbital period. Ask for the beginning of two successive events and compare it with the width of one event.

Bridge rehearsal / worked feedback

A ridge spreads 1.5 cm/year on each side for 2 million years. How far apart are the two matching rocks?

Each moves 30 km, giving 60 km total separation. Specify whether distance is from the ridge or across it.

How to choose the next round

If the model or source was misread, return to the matching prep set and ask for a new representation. If the computation or claim is correct but support is missing, request one neutral explanation and give a parallel independent check. Keep the independent result separate from prompted work.