

FOR TEACHERS ONLY

The University of the State of New York
REGENTS HIGH SCHOOL EXAMINATION

PS-ES PHYSICAL SETTING/EARTH SCIENCE

Wednesday, August 13, 2008 — 12:30 to 3:30 p.m., only

SCORING KEY AND RATING GUIDE

Directions to the Teacher:

Refer to the directions on page 3 before rating student papers.

Updated information regarding the rating of this examination may be posted on the New York State Education Department's web site during the rating period. Check this web site <http://www.emsc.nysed.gov/osa/> and select the link "Examination Scoring Information" for any recently posted information regarding this examination. This site should be checked before the rating process for this examination begins and several times throughout the Regents examination period.

Part A and Part B-1

Allow 1 credit for each correct response.

Part A			Part B-1	
1 1	13 3	25 2	36 1	44 3
2 3	14 3	26 1	37 3	45 1
3 3	15 1	27 2	38 3	46 4
4 2	16 3	28 4	39 2	47 2
5 3	17 1	29 4	40 1	48 4
6 4	18 2	30 2	41 4	49 4
7 4	19 3	31 1	42 3	50 1
8 1	20 4	32 3	43 2	
9 3	21 4	33 4		
10 2	22 3	34 1		
11 3	23 2	35 4		
12 4	24 1			

Directions to the Teacher

Follow the procedures below for scoring student answer papers for the Physical Setting/Earth Science examination. Additional information about scoring is provided in the publication *Information Booklet for Scoring Regents Examinations in the Sciences*.

Use only *red* ink or *red* pencil in rating Regents papers. Do *not* correct the student's work by making insertions or changes of any kind.

On the detachable answer sheet for Part A and Part B–1, indicate by means of a check mark each incorrect or omitted answer. In the box provided at the end of each part, record the number of questions the student answered correctly for that part.

At least two science teachers must participate in the scoring of each student's responses to the Part B–2 and Part C open-ended questions. Each of these teachers should be responsible for scoring a selected number of the open-ended questions on each answer paper. No one teacher is to score all the open-ended questions on a student's answer paper.

Students' responses must be scored strictly according to the Scoring Key and Rating Guide. For open-ended questions, credit may be allowed for responses other than those given in the rating guide if the response is a scientifically accurate answer to the question and demonstrates adequate knowledge as indicated by the examples in the rating guide. In the student's answer booklet, record the number of credits earned for each answer in the box printed to the right of the answer lines or spaces for that question.

Fractional credit is *not* allowed. Only whole-number credit may be given to a response. Units need not be given when the wording of the questions allows such omissions.

Raters should enter the scores earned for Part A, Part B–1, Part B–2, and Part C on the appropriate lines in the box printed on the answer booklet and then should add these four scores and enter the total in the box labeled "Total Written Test Score." The student's score for the Earth Science Performance Test should be entered in the space provided. Then, the student's raw scores on the performance test and written test should be converted to a scaled score by using the conversion chart that will be posted on the Department's web site <http://www.emsc.nysed.gov/osa/> on Wednesday, August 13, 2008. The student's scaled score should be entered in the labeled box on the student's answer booklet. The scaled score is the student's final examination score.

All student answer papers that receive a scaled score of 60 through 64 **must** be scored a second time. For the second scoring, a different committee of teachers may score the student's paper or the original committee may score the paper, except that no teacher may score the same open-ended questions that he/she scored in the first rating of the paper. The school principal is responsible for assuring that the student's final examination score is based on a fair, accurate, and reliable scoring of the student's answer paper.

Because scaled scores corresponding to raw scores in the conversion chart may change from one examination to another, it is crucial that for each administration, the conversion chart provided for that administration be used to determine the student's final score.

Part B–2

Allow a total of 15 credits for this part. The student must answer all questions in this part.

51 [1] Allow 1 credit for blue.

52 [1] Allow 1 credit for a list in the order shown.

Most luminous	(1)	<i>Rigel</i>
↓	(2)	<i>Betelgeuse</i>
	(3)	<i>Aldebaran</i>
	(4)	<i>Sirius</i>
Least luminous	(5)	<i>Procyon B</i>

53 [1] Allow 1 credit. Acceptable responses include, but are not limited to:

- Earth is revolving around the Sun.
- Different regions of space are visible at night from different positions in Earth’s orbit.

54 [1] Allow 1 credit for evaporation.

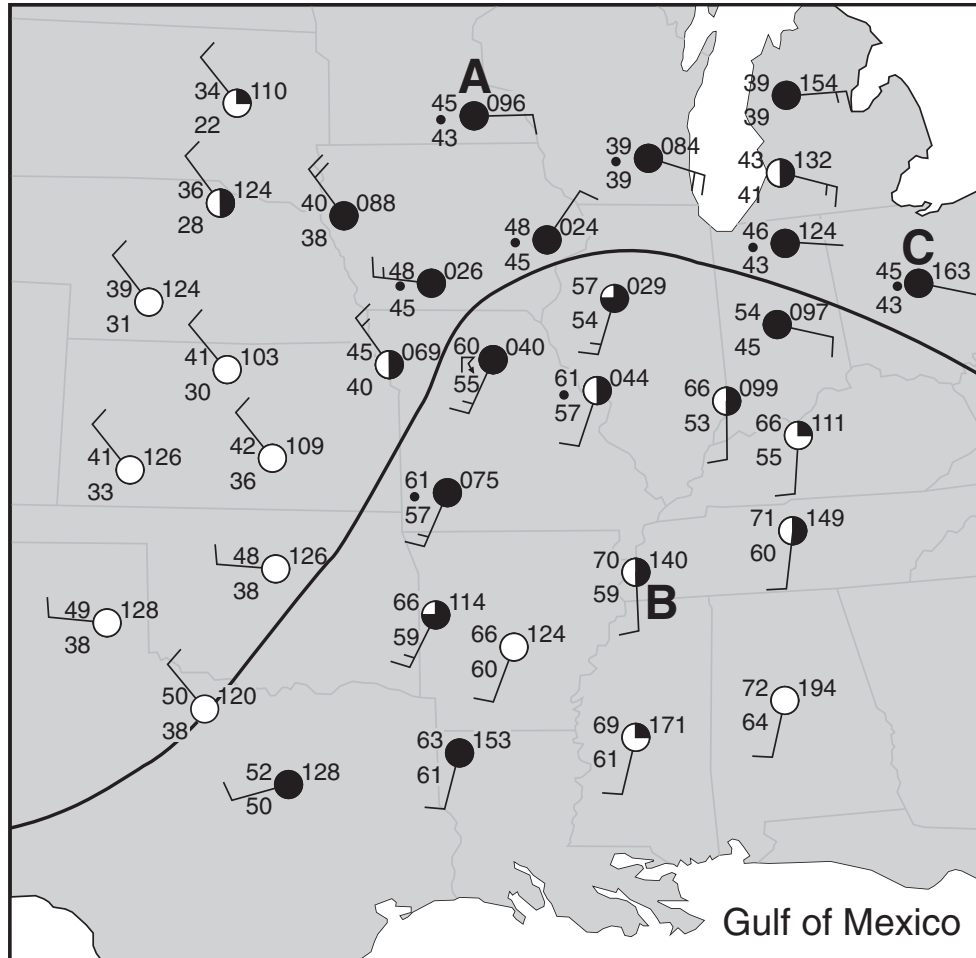
55 [1] Allow 1 credit for 540 calories per gram.

56 [1] Allow 1 credit for transpiration.

57 [1] Allow 1 credit. Acceptable responses include, but are not limited to:

- precipitation
- rain

- 58 [1] Allow 1 credit for a correctly drawn 50°F isotherm. An example of a 50°F isotherm is shown on the map below. The isotherm does *not* have to be labeled but must extend to the edges of the map. If more than one isotherm is drawn, all must be correct to receive credit.



- 59 [1] Allow 1 credit for 1009.6 mb.
- 60 [1] Allow 1 credit for the correct two-letter symbol mT *or* MT. Do *not* accept a response where letters are reversed, such as Tm.
- 61 [1] Allow 1 credit for rain.

- 62** [1] Allow 1 credit for any value from 1 hr 32 min to 1 hr 42 min.
- 63** [1] Allow 1 credit if latitude, longitude, units, and compass directions are all correct.
- Latitude: Allow credit for any value from 3.0° to 4.0° N.
 - Longitude: Allow credit for any value from 95.5° to 96.5° E.
- 64** [1] Allow 1 credit for Eurasian Plate.
- 65** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- The ocean water receded.
 - The water level dropped.

Part C

Allow a total of 20 credits for this part. The student must answer all questions in this part.

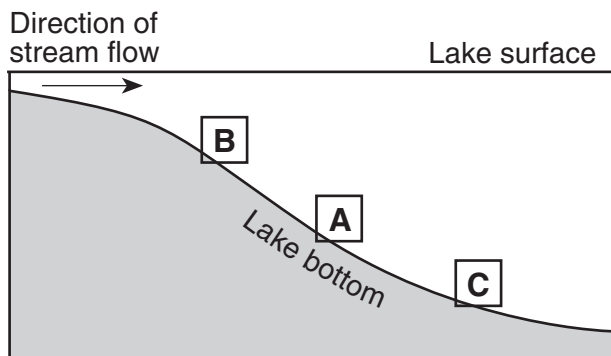
- 66** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- The tornadoes are located within the SW wind belt.
 - The planetary winds moved them toward the northeast.
 - The tornadoes are moving this way because of the prevailing winds.

- 67** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- counterclockwise
 - toward the center
 - upward air movement

- 68** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- go to the structurally strongest area in the school nearest your location
 - go to the lowest level in the school
 - go to an interior location with no windows
 - go under a desk or table

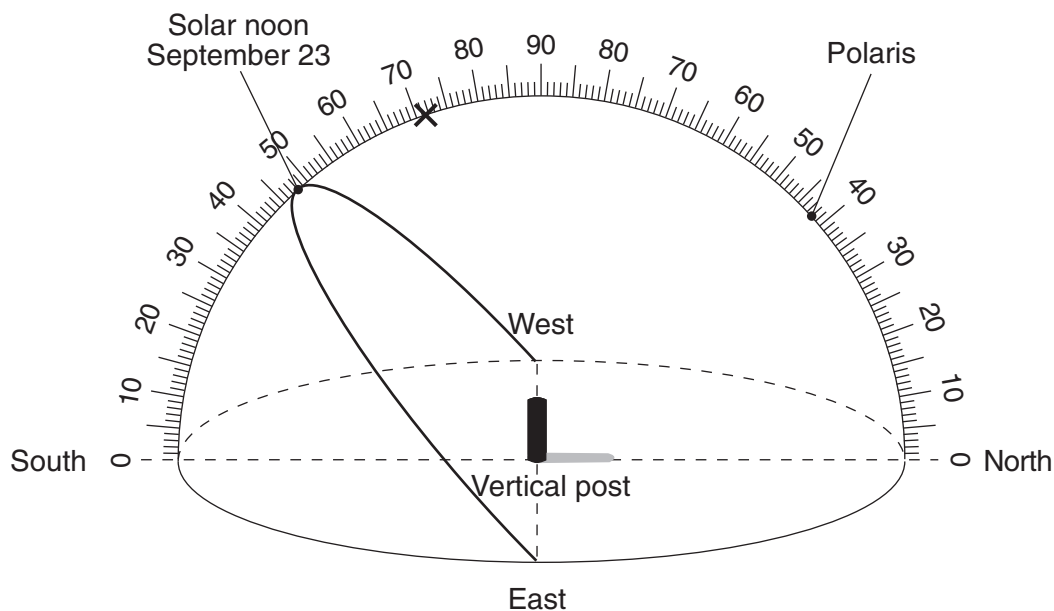
- 69** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- condensation (gas to liquid)
 - deposition (gas to solid)

- 70** [1] Allow 1 credit for the correct sequence as shown below.



- 71 [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- The water velocity decreases.
 - The particles slow down.
- 72 [1] Allow 1 credit for drawing the apparent path of the Sun from due east to due west and passing through the given solar noon position.
- 73 [1] Allow 1 credit for drawing a shadow that extends due north. Allow credit even if the shadow length is incorrect.
- 74 [1] Allow 1 credit for any altitude of the Sun from 70.5° to 72.5° .

Example of a 3-credit response for questions 72 through 74:

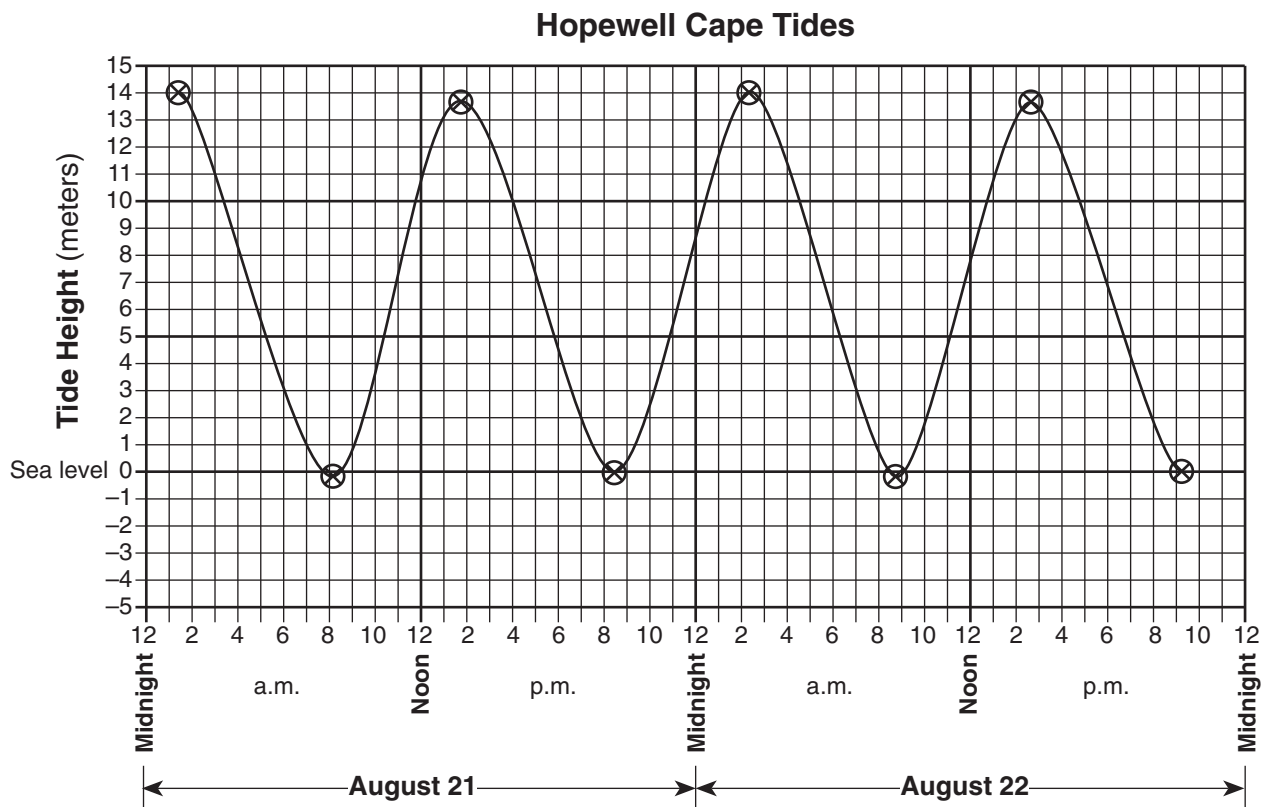


- 75 [1] Allow 1 credit for 30° .
- 76 [1] Allow 1 credit for 42° N.

- 77 [1] Allow 1 credit for *two* correct responses. Acceptable responses include, but are not limited to:
- shape of the bay
 - gradual narrowing
 - shallowing of the bay
 - the time it takes to flood the bay
 - seaward-moving river currents

- 78 [1] Allow 1 credit if the center of seven or eight **X**s are correctly plotted within the circles shown and connected with a line that passes through the circles.

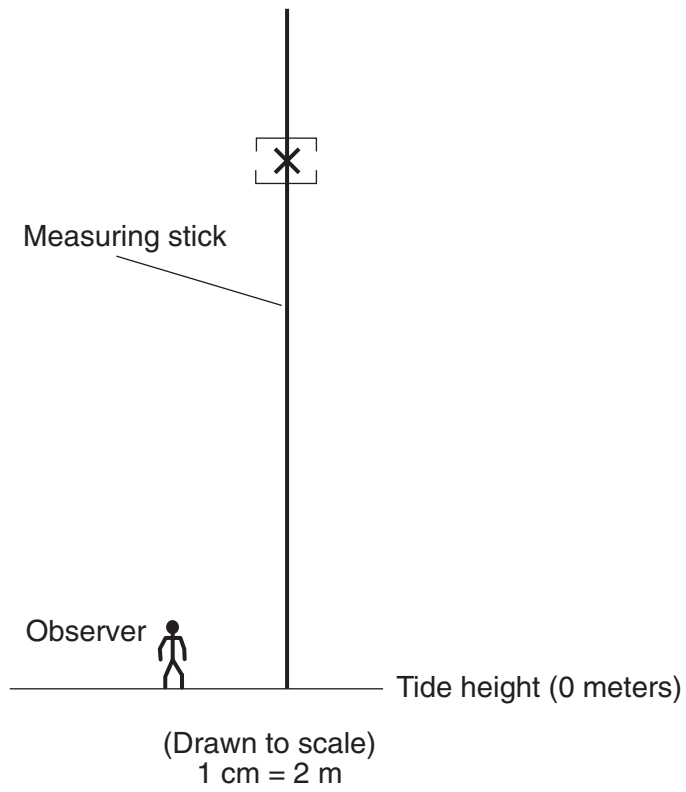
Example of a 1-credit response:



- 79 [1] Allow 1 credit for 12 hr 26 min.

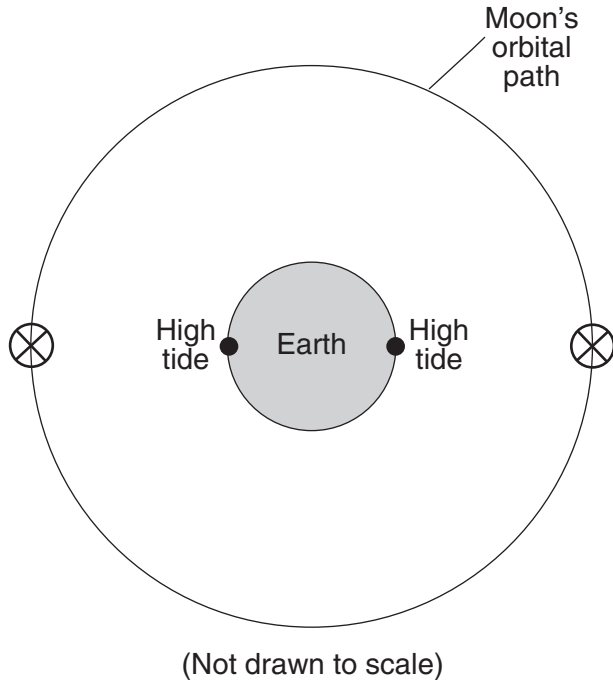
80 [1] Allow 1 credit if the center of the **X** is within the brackets shown on the diagram below.

Example of a 1-credit response:



- 81 [1] Allow 1 credit for an **X** that has been placed at either Moon location shown below. The center of the **X** must be within either circle shown.

Example of a 1-credit response:



- 82 [1] Allow 1 credit if *both* texture and color are correct. Acceptable responses include, but are not limited to:

- texture: — fine grained
 — nonvesicular or vesicular
 — glassy
 — noncrystalline
 — grain size less than 1 mm
- color: — dark colored
 — black
 — green

- 83** [1] Allow 1 credit if *both* minerals are correct. Acceptable responses include, but are not limited to:
- plagioclase feldspar
 - potassium feldspar (orthoclase)
 - quartz
 - amphibole (hornblende)
 - biotite (mica)
- 84** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- WSW
 - SW
 - southwest
- 85** [1] Allow 1 credit for any value from 23.5 to 26.5 miles per million years.

Regents Examination in Physical Setting/Earth Science

August 2008

Chart for Converting Total Test Raw Scores to Final Examination Scores (Scaled Scores)

The *Chart for Determining the Final Examination Score for the August 2008 Regents Examination in Physical Setting/Earth Science* will be posted on the Department's web site <http://www.emsc.nysed.gov/osa/> on Wednesday, August 13, 2008. Conversion charts provided for previous administrations of the Regents Examination in Physical Setting/Earth Science must NOT be used to determine students' final scores for this administration.

Submitting Teacher Evaluations of the Test to the Department

Suggestions and feedback from teachers provide an important contribution to the test development process. The Department provides an online evaluation form for State assessments. It contains spaces for teachers to respond to several specific questions and to make suggestions. Instructions for completing the evaluation form are as follows:

1. Go to www.emsc.nysed.gov/osa/exameval.
2. Select the test title.
3. Complete the required demographic fields.
4. Complete each evaluation question and provide comments in the space provided.
5. Click the SUBMIT button at the bottom of the page to submit the completed form.

Map to Core Curriculum

August 2008 Physical Setting/Earth Science			
Question Numbers			
Key Ideas/Performance Indicators	Part A	Part B	Part C
Standard 1			
Math Key Idea 1	10, 22	49, 51, 52, 55, 59	75, 78, 85
Math Key Idea 2	11, 15, 18, 25	58, 63	79, 84
Math Key Idea 3		62	
Science Inquiry Key Idea 1	8, 20, 28, 29, 31	42, 46, 47, 53, 54, 56, 57, 60	77
Science Inquiry Key Idea 2			
Science Inquiry Key Idea 3			73
Engineering Design Key Idea 1			
Standard 2			
Key Idea 1			
Key Idea 2			
Key Idea 3		65	
Standard 6			
Key Idea 1	8, 25, 32	39, 43	67, 69, 71, 81
Key Idea 2	9, 10, 11, 12, 13, 14, 16, 17, 19, 21, 22, 23, 27, 30, 32, 33, 34, 35	36, 37, 38, 40, 41, 44, 45, 59, 61, 62, 63, 64, 65	70, 72, 73, 74, 75, 76, 81, 82, 83
Key Idea 3	10, 22	46	80
Key Idea 4	20		
Key Idea 5	13, 14, 16, 17, 19, 23, 24, 27	45, 48, 49, 50, 53	66, 67, 71, 72, 73, 74, 75, 78, 84
Key Idea 6			
Standard 7			
Key Idea 1			
Key Idea 2			68
Standard 4			
Key Idea 1	1, 2, 3, 4, 5, 7, 10, 17, 20, 21, 23, 26, 27, 34	36, 37, 38, 41, 44, 45, 46, 51, 52, 53, 54, 55, 56, 57, 63	72, 73, 74, 75, 76, 77, 78, 79, 80, 81
Key Idea 2	6, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 22, 24, 25, 28, 29, 31, 32, 33	39, 40, 47, 48, 49, 50, 58, 59, 60, 61, 62, 64, 65	66, 67, 68, 69, 70, 71, 84, 85
Key Idea 3	30, 35	42, 43	82, 83
Reference Tables			
ESRT 2001 Edition (Revised)	1, 3, 10, 11, 12, 18, 19, 20, 22, 24, 26	36, 37, 38, 40, 41, 42, 43, 47, 51, 52, 55, 58, 59, 60, 64	66, 70, 80, 82, 83, 85

