

**The University of the State of New York
REGENTS HIGH SCHOOL EXAMINATION
EARTH SCIENCE
Wednesday, June 20, 1973 – 1:15 to 4:15 pm only**

The last page of the booklet is the answer sheet. Fold the last page along the perforations and, slowly and carefully, tear off the answer sheet. Then fill in the heading of your answer sheet.

All of your answers should be recorded on the separate answer sheet. For each question, decide which of the choices given is your answer. Then on the answer sheet, in the row of numbers for that question, circle with pencil the number of the choice that you have selected. The sample below is an example of the first step in recording your answers.

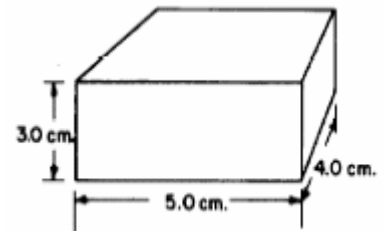
If you decide later in the examination period that you wish to change an answer, you may erase any previously written circle and encircle another number. When you have finally decided that all of the circled answers represent your best judgment, place an X in ink in each circle. Be sure to mark only one answer with an X for each question. No credit will be given for any item with two or more X's. The sample below indicates how your final choice should appear.

Part I

Answer all questions in this part.

Directions (1-55): For each statement or question, select the word or expression that, of those given, best completes the statement or answers the question. Record your answer on the separate answer sheet in accordance with the directions on the front page of this booklet. [55]

- 01 The diagram to the right represents a solid object with a mass of 120 grams.
What is the density of the object?



- (1) 0.50 g/cm^3 (3) 5.0 g/cm^3
(2) 2.0 g/cm^3 (4) 6.0 g/cm^3

- 02 Which statement about a stream is an inference rather than an observation?

- (1) It is clear enough to see the bottom. (3) The water temperature is 15°C .
(2) The velocity is 38 cm/sec. (4) It will dry up next summer.

- 03 Which is a cyclic change?

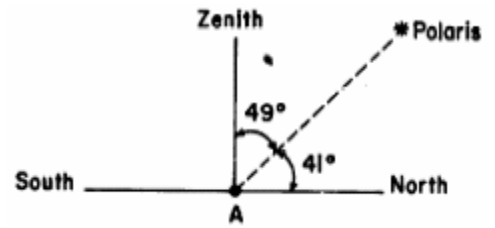
- (1) the decay of a radioactive substance (3) the movement of the earth's crust during an earthquake
(2) the extinction of a species (4) the earth's daily rotation

- 04 A prediction about an event that is changing the earth's surface can best be made if

- (1) an instrument is used in making one observation
(2) the event is non-cyclic
(3) observations have been made over a long period of time
(4) the event has not occurred in the past

05 What is the latitude of point A in the diagram to the right?

- (1) 8° N
- (2) 41° N
- (3) 49° N
- (4) 59° N



06 Which profile when drawn to true scale most accurately shows the relationship between the ocean width of 1,500 km and a maximum depth of 8 km?



07 On the Generalized Bedrock Geology Map of New York State, what similar pattern is found at 42° north latitude by 75° west longitude?



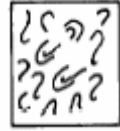
(1)



(2)



(3)



(4)

08 Which is true of isolines on a weather map?

- (1) They are of equal length.
- (2) They are evenly spaced.
- (3) They connect points with equal readings.
- (4) They are constant for 24 hours.

09 An observer in New York State took a time exposure photograph from 10 p.m. until midnight of the stars over the northern horizon. Which diagram best represents this photograph?



(1)



(3)



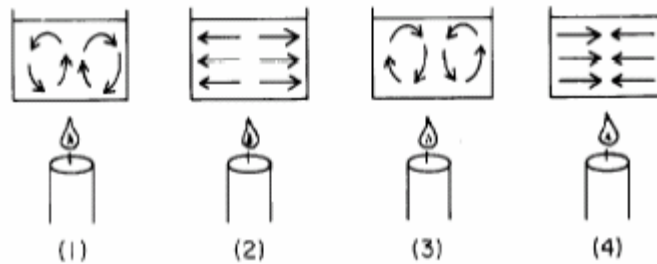
(2)



(4)

- 10 An observer on earth sees the phases of the moon because the
- (1) moon revolves around the sun (3) earth revolves around the sun
 (2) moon rotates on its axis (4) moon revolves around the earth
- 11 How many days during the year is the sun directly overhead in New York State?
- (1) 1 (2) 2 (3) 0 (4) 4
- 12 Why does the angular diameter of the sun, as seen from the earth, appear to be greater during our winter than summer?
- (1) The earth is closer to the sun during our winter.
 (2) The Northern Hemisphere is inclined toward the sun during our winter.
 (3) The sun expands during our winter.
 (4) The earth is revolving around the sun faster during our winter.
- 13 The path of a freely swinging pendulum appears to change direction in a predictable manner because of the
- (1) gravitational influence of the moon (3) revolution of the earth around the sun
 (2) gravitational influence of the sun (4) rotation of the earth

- 14 Which diagram best represents the transfer of heat by convection in a liquid?

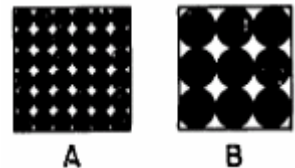


- 15 Which is most likely an example of a heat source?
- (1) Lake Ontario on a clear fall night (3) a desert waterhole on a sunny summer day
 (2) an iceberg in the North Atlantic Ocean (4) a Rocky Mountain glacier in August
- 16 Using the Earth Science Reference Tables, how much energy is lost by water when 1 gram is cooled from 20° C to 19° C?
- (1) 1.0 calorie (2) 0.5 calorie (3) 19 calories (4) 80 calories
- 17 The greatest amount of solar radiation will be reflected by
- (1) soil (2) snow (3) plants (4) water

- 18 If the dewpoint temperature was 20° C, which air temperature would indicate the lowest vapor content?
 (1) 18° C (2) 20° C (3) 22° C (4) 24° C
- 19 On a weather map of the United States, the indicated movement of air in a low pressure system is
 (1) toward the center and clockwise (3) out from the center and clockwise
 (2) toward the center and counterclockwise (4) out from the center and counterclockwise
- 20 Where is precipitation most likely to occur?
 (1) near the frontal surface between two air masses (3) on the leeward slopes of mountains
 (2) in descending air currents (4) near the center of a high pressure area
- 21 The characteristics of air masses depend chiefly upon the
 (1) rotation of the earth (3) barometric pressure of the air mass
 (2) surface over which the air mass was formed (4) wind velocity within the air mass
- 22 Air pressure is usually highest when the air is
 (1) cool and dry (2) cool and moist (3) warm and dry (4) warm and moist
- 23 According to the *Earth Science Reference Tables*, what is the approximate dewpoint temperature if the dry bulb temperature is 14°C and the wet bulb temperature is 10°C?
 (1) 10° C (2) 6° C (3) -18° C (4) 4° C

Note that question 24 has only three choices.

- 24 Two equal areas A and B each contain a sample of uniform size sediments as shown in the diagram to the right.



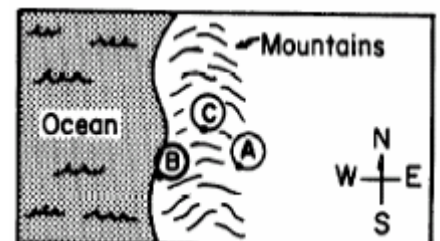
Compared to the porosity of sample A, the porosity of sample B will be

- (1) less (2) greater (3) the same

Base your answers to questions 25 and 26 on the diagram to the right and on your knowledge of earth science.

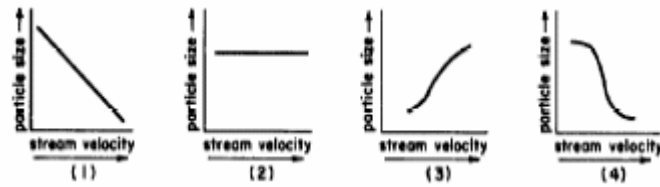
- 25 The climate of point A is probably
 (1) always moist
 (2) always dry
 (3) dry in the summer and wet in the winter
 (4) wet in the summer and dry in the winter

Points A, B, and C are located on the western portion of a large continent where the prevailing winds are from the west.

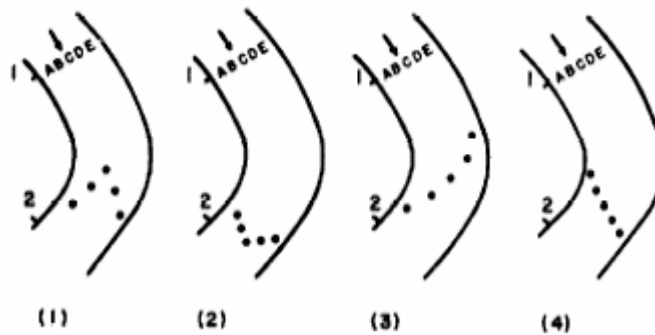


- 26 If a person moved from point B to point C, a region high in the mountains, he would be moving to a climate which would probably be
 (1) wetter and cooler (3) wetter and warmer
 (2) drier and cooler (4) drier and warmer

- 27 Which graph best shows the relationship between the size of a rock particle transported by a stream and the stream velocity?



- 28 To compare the velocities of different parts of a stream, five similar floating objects are placed in the stream at points A through E at Station 1. If they are released at the same time, what is the most probable arrangement of the objects as they approach Station 2?



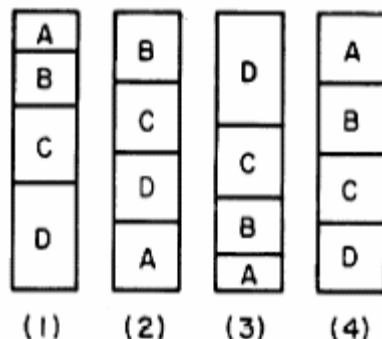
- 29 Flat-shaped particles may settle more slowly in a fluid than spherical particles which have the same mass and volume because the flat particles have

- (1) less weight
 (2) more potential energy
 (3) a lower density
 (4) more resistance due to shape

- 30 The particles below, all of equal size and shape, were mixed together and dropped into a column of water.

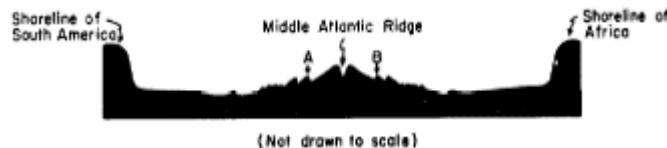
| Type | Total Mass of Particles | Total Volume of Particles |
|-------------|-------------------------|---------------------------|
| A Particles | 120 g | 20 cm ³ |
| B Particles | 120 g | 30 cm ³ |
| C Particles | 120 g | 40 cm ³ |
| D particles | 120 g | 60 cm ³ |

Which diagram best represents how the particles would appear in the bottom of the column of water after all of them have settled?



- 31 According to the *Earth Science Reference Tables*, which is a coarse-grained, igneous rock composed mainly of pyroxene, plagioclase feldspar, and olivine?
 (1) granite (2) gabbro (3) rhyolite (4) basalt
- 32 Which is the best explanation for the cleavage of mica into thin layers?
 (1) the high density of mica (3) the softness of mica
 (2) the arrangement of the mica molecules (4) the impurities found in mica
- 33 On Earth, the predominant agent of erosion is
 (1) wave action (2) moving ice (3) running water (4) moving air
- 34 Large crystal grains in an igneous rock are an indication that the crystals formed
 (1) over a long period of time (3) near the surface of the earth
 (2) under low pressure (4) at a low temperature
- 35 Rock layers showing ripple marks, cross-bedding, and fossil shells indicate that these layers were formed
 (1) from solidification of molten material (3) by high temperature and pressure
 (2) from deposits left by a continental ice sheet (4) by deposition of sediments in a shallow sea
- 36 Which is the best indication that central New York State was a geosyncline?
 (1) the presence of both igneous and metamorphic rocks
 (2) the presence of shallow water fossils found in sedimentary layers at great depths
 (3) signs of surface glaciation
 (4) the lack of Mesozoic rocks in western New York

Base your answers to questions 37 and 38 and the diagram below which represents a profile of the floor of the Atlantic Ocean between the continents of South America and Africa.



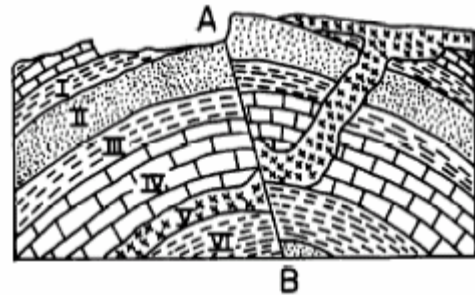
- 37 If the rocks at A and B were compared, the results would probably show that the rocks at
 (1) A and B were formed about the same time (3) A are sedimentary and those at B are non-sedimentary
 (2) A were formed before those at B (4) A are non-sedimentary and those at B are sedimentary

Note that question 38 has only three choices.

- 38 In the past 100,000 years the distance between South America and Africa has
 (1) decreased (2) increased (3) remained the same

- 39 The distance between an earthquake epicenter and the location of a seismograph can be calculated because
- (1) seismographs are sensitive to directions
 - (2) earthquake waves decay at known rates
 - (3) shear waves will not pass through liquids
 - (4) shear waves and compression waves travel at different speeds
- 40 The best evidence that a sedimentary rock found on the eastern shore of Lake Erie is the same age as a rock found 500 miles east of Lake Erie would be their similarity in
- (1) mineral composition
 - (2) index fossil content
 - (3) color
 - (4) grain size

- 41 Based on the interpretation of the diagram of the regional rock structure shown to the right, which occurred last?

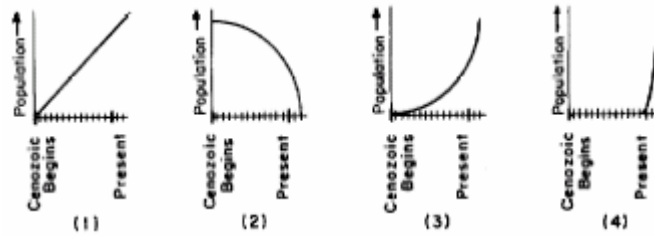


- (1) folding of the region
- (2) intrusion of rock unit V
- (3) deposition of rock unit III
- (4) faulting along line A-B

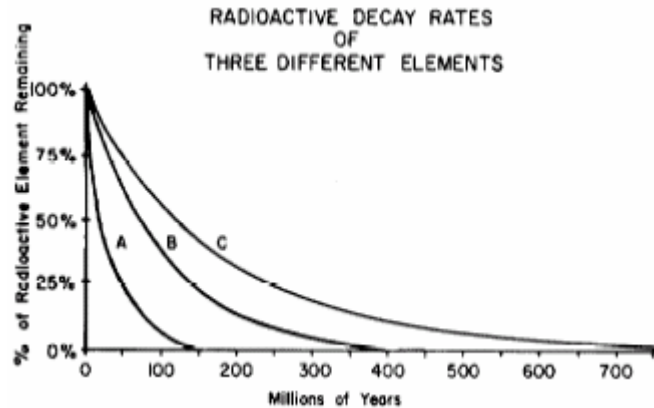
Note that question 42 has only three choices.

- 42 A comparison of seismic graphs taken at a location in the ocean with those taken at the center of a continent would indicate that the crustal thickness under the oceans is probably
- (1) less than that under the continents
 - (2) more than that under the continents
 - (3) equal to that under the continents
- 43 Which era covers the shortest length of geologic time?
- (1) Cenozoic
 - (2) Mesozoic
 - (3) Paleozoic
 - (4) Precambrian
- 44 According to the *Earth Science Reference Tables*, during which geologic time interval did the mammoth live?
- (1) Precambrian
 - (2) Paleozoic
 - (3) Mesozoic
 - (4) Cenozoic
- 45 The half-life of carbon 14 is 5,600 years. After 11,200 years how much carbon 14 would remain?
- (1) 75%
 - (2) 50%
 - (3) 33%
 - (4) 25%

46 Which graph best represents human population growth during the Cenozoic Era?



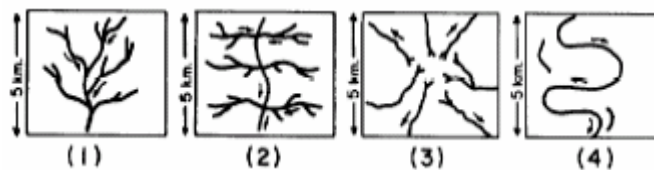
47 The graph below indicates the radioactive decay rates for three different elements, A, B, and C.



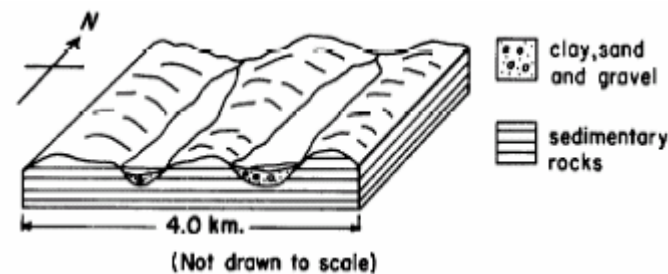
To determine the age of a rock formed during the Cambrian Period, a scientist would use

- (1) element A, only (2) element B, only (3) element C, only (4) elements A, B, and C

48 Which stream pattern is most commonly found in areas with nearly level land surface?



49 The diagram below represents a landscape and bedrock section of an area of Central New York State.



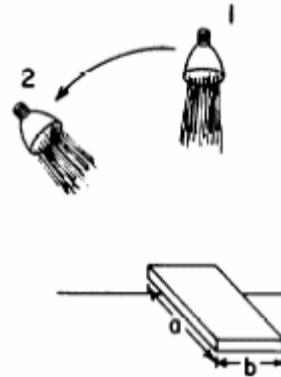
The present surface landscape of this area was produced chiefly by

- (1) faulting (2) folding (3) volcanic activity (4) glaciation

- 50 Why are fossils rarely found in Precambrian rock layers?
- (1) Few Precambrian rock layers have been discovered.
 - (2) Nearly all fossils from this era have been destroyed by glaciers.
 - (3) Few rock layers were formed during the Precambrian Era.
 - (4) Life that would produce fossils was not abundant during the Precambrian Era.

Note that questions 51 through 55 have only three choices.

- 51 The diagram to the right represents a single light source directly over a surface ab when in position 1. As the light is moved from position 1 to position 2, which is of equal distance from the surface, what will happen to the light intensity on the surface ab ?



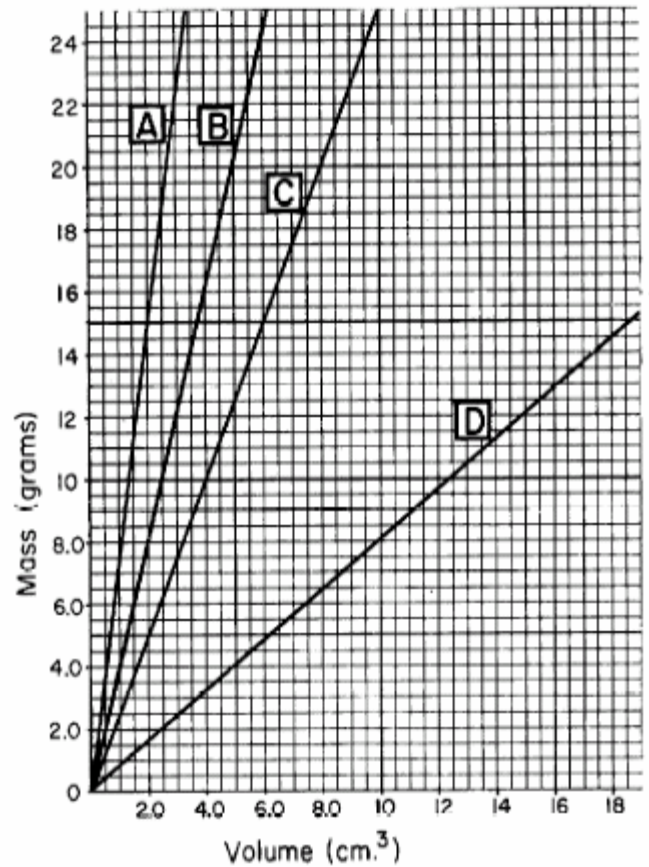
- (1) decrease
 - (2) increase
 - (3) remain the same
- 52 As the human population density along a shore of a lake increases, the pollution of the lake usually
- (1) decreases
 - (2) increases
 - (3) remains the same
- 53 When human activity decrease the amount of plant life, the amount of runoff usually
- (1) decreases
 - (2) increases
 - (3) remains the same
- 54 As a parcel of air moves up a mountainside and expands, the temperature of the air will
- (1) decrease
 - (2) increase
 - (3) remain the same
- 55 As soil particle size decreases, capillary action will
- (1) decrease
 - (2) increase
 - (3) remain the same

The next part consists of ten groups, each containing five questions. In 1973, students needed to choose seven of the ten groups. On your Earth Science Regents Exam, you must answer every question on the exam. Be sure that you answer all questions in each group chosen. Write the answers to these questions on the separate answer sheet in accordance with the directions on the front page of this booklet.

Group 1

Directions (56-60): Base your answers to questions 56 through 60 on your knowledge of earth science and the graph to the right, which shows the masses and volumes of four different earth materials. [5]

MASSES AND VOLUMES OF EARTH MATERIALS



56 Which material has the greatest density?

- (1) A (2) B (3) C (4) D

57 If the density of water is 1 g/cm^3 , which material will float on water?

- (1) A (2) B (3) C (4) D

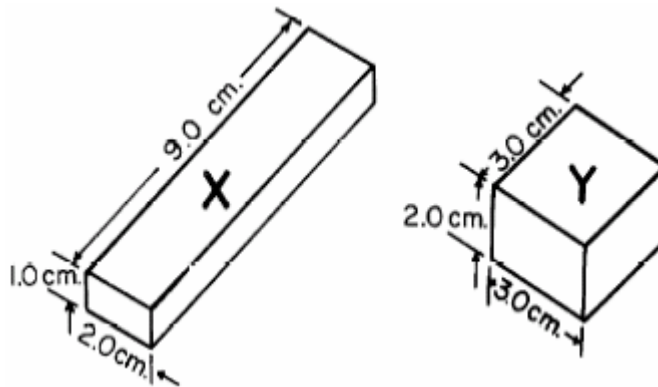
58 What is the mass of sample C if its volume is 3.0 cubic centimeters?

- (1) 7.5 g (2) 2.1 g (3) 3.0 g (4) 21 g

59 Which material has a density of 4.0 g/cm^3 ?

- (1) A (2) B (3) C (4) D

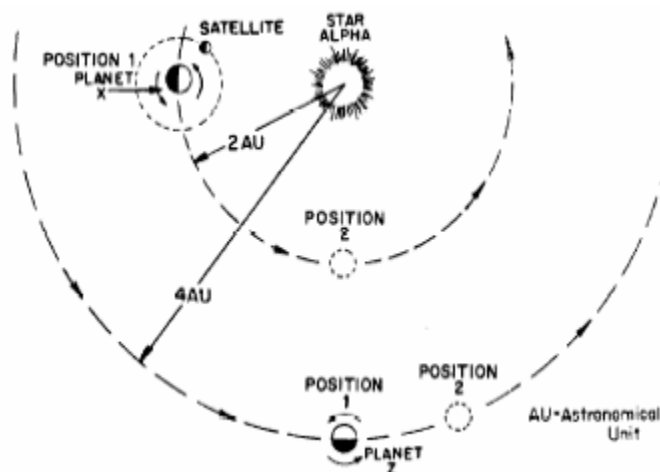
60 The two solid blocks below are made of the same material and are under the same temperature and pressure conditions. If the mass of block X is 54 grams, what is the mass of block Y?



- (1) 18 g (2) 27 g (3) 54 g (4) 108 g

Group 2

Directions (61-65): Base your answers to questions 61 through 65 on the Earth Science Reference Tables, on your knowledge of earth science, and on the diagram below, which illustrates an imaginary solar system involving two planets, Planet X and Planet Z. [5]



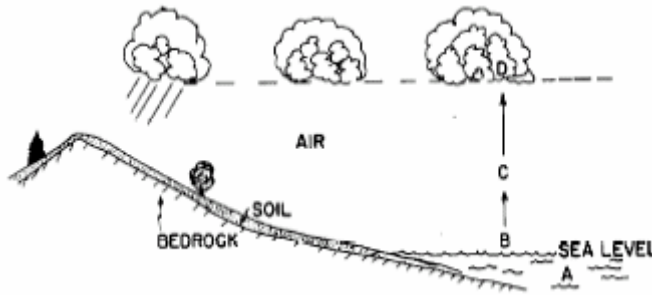
- 61 Assume that Planet X is being orbited by a small natural satellite which is visible from Planet Z. To an observer on Planet Z, this moon will
- (1) always be fully illuminated
 - (2) always be in complete darkness
 - (3) be illuminated on one side, only
 - (4) be in varying amounts of illumination from nearly full to dark
- 62 An observer on Planet Z at midnight will
- (1) see only Planet X but not its satellite
 - (2) see only Planet X's satellite but not Planet X
 - (3) see only Star Alpha
 - (4) not be able to see Star Alpha, Planet X, or its satellite

Note that questions 63 and 64 have only three choices.

- 63 As the planets move to their second positions, the angular diameter of Planet Z as observed from Planet X will
- (1) decrease
 - (2) increase
 - (3) remain the same
- 64 As the planets move to their second positions, the gravitational attraction between Planet X and Planet Z will
- (1) decrease
 - (2) increase
 - (3) remain the same
- 65 If the masses of Planet X and Planet Z are equal, the gravitational attraction between Star Alpha and Planet Z as compared to the gravitational attraction between Star Alpha and Planet X is
- (1) $\frac{1}{2}$ as great
 - (2) 2 times as great
 - (3) $\frac{1}{16}$ as great
 - (4) $\frac{1}{4}$ as great

Group 3

Directions (66-70): Base your answers to questions 66 through 70 on your knowledge of earth science and on the drawing below which represents a part of the water cycle. [5]



66 Which statement best describes the air at C?

- (1) Its relative humidity is 0%.
- (2) It contains water vapor.
- (3) It is at a temperature below that of the dewpoint.
- (4) It is saturated.

Note that questions 67 and 68 have only three choices.

67 As the temperature of the air increases, the amount of water which enters the atmosphere in the area around B will

- (1) decrease
- (2) increase
- (3) remain the same

68 As moisture is absorbed by air, the density of the air will

- (1) decrease
- (2) increase
- (3) remain the same

69 The base of the clouds is located at D because at that altitude

- (1) air temperature equals dewpoint temperature
- (2) prevailing winds are strongest
- (3) surface topography reaches its greatest elevation
- (4) air pressure is the same as at B

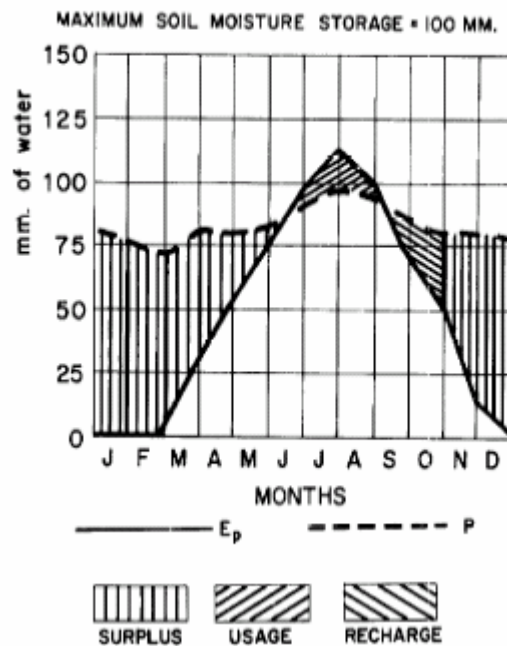
70 At which location is heat energy being released into the atmosphere due to a change in state of water?

- (1) A
- (2) B
- (3) C
- (4) D

Group 4

Directions (71-75): Base your answers to questions 71 through 75 on your knowledge of earth science and on the graph below which shows the water budget for a certain area. [5]

Precipitation (P)-Potential Evapotranspiration (E_p) Graph



- 71 The high E_p values for July and August indicate that the
- (1) area is in the Southern Hemisphere
 - (2) amount of vegetation is at a minimum during these months
 - (3) earth is closest to the sun during these months
 - (4) available energy for this area is greatest during these months
- 72 During which month did recharge take place?
- (1) January
 - (2) March
 - (3) August
 - (4) October
- 73 The amount of water in the streams of this area would be greatest during the month of
- (1) March
 - (2) June
 - (3) August
 - (4) October
- 74 The total precipitation for the year is closest to
- (1) 75 mm
 - (2) 100 mm
 - (3) 600 mm
 - (4) 1,000 mm
- 75 Why was the potential evapotranspiration of this area approximately 0 mm during January?
- (1) There was no water available to change into a gas.
 - (2) The temperature was low.
 - (3) The relative humidity was low.
 - (4) There was no precipitation.

Group 5

Directions (76-80): Base your answers to questions 76 through 80 on your knowledge of earth science and on the data table below which is a record of an investigation. [5]

Three similar tubes each containing a specific soil of uniform grain size were used to study the effect that different grain size has on water retention, porosity, and permeability.

A fourth tube containing soil of unknown characteristics is studied and its data recorded in the table.

| Tube | Size of Particles | Water Retention (ml) | Porosity (%) | Permeability (Sec.) |
|------|-------------------|----------------------|--------------|---------------------|
| 1 | 3 mm | 15 | 42 | 11 |
| 2 | 6 mm | 7 | 42 | 9 |
| 3 | 8 mm | 4 | 42 | 6 |
| 4 | Unknown | 2 | 14 | 14 |

76 What was the approximate amount of water retained by the soil sample with a grain size of 6 millimeters?

- (1) 9 ml (2) 7 ml (3) 3 ml (4) 40 ml

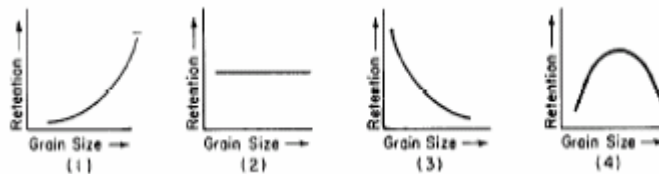
77 The data for the grain sizes of 3, 6, and 8 millimeters all have the same value for porosity. Which conclusion can best be drawn from this fact?

- (1) Water retention has a greater effect than porosity.
 (2) Water retention and permeability are inversely proportional to each other.
 (3) Porosity is directly proportional to water retention and permeability.
 (4) Porosity is independent of particle size.

78 The data for the unknown sample indicates that probably the

- (1) unknown sample's grain size is less than 8 mm.
 (2) total amount of space between the unknown sample's particles is equal to that of the other samples.
 (3) unknown sample is a mixture of different particle sizes.
 (4) unknown sample has a density lower than that of the other samples.

79 Which graph best represents the relationship between water retention and grain size?



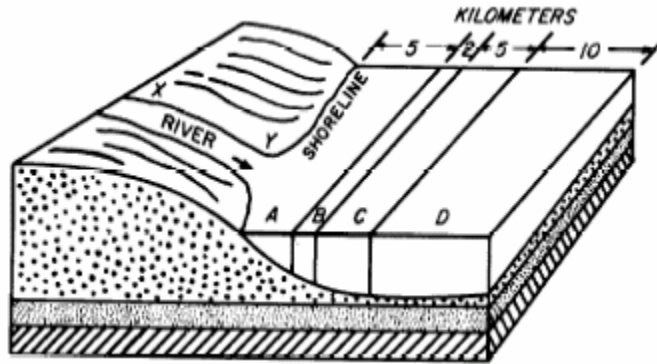
Note that question 80 has only three choices.

80 Based on the data, the amount of time that it takes for water to pass through larger grain sizes as compared to smaller grain sizes is

- (1) less (2) more (3) the same

Group 6

Directions (81-85): Base your answers to questions 81 through 85 on your knowledge of earth science and on the block diagram below which shows a land-ocean interface with the ocean area divided into four zones and a sediment laden stream. [5]



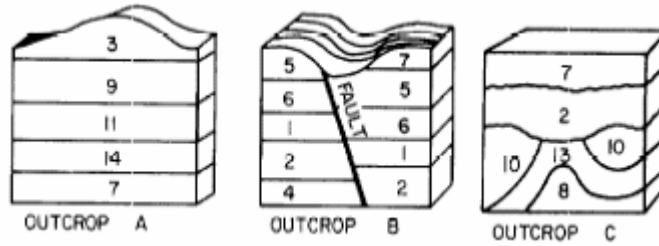
- 81 Which zone has the greatest amount of sediment deposition?
(1) A (2) B (3) C (4) D
- 82 Most dissolved materials carried by the river will
(1) settle in zone A (3) settle in zone C
(2) settle in zone B (4) not settle in any of these zones
- 83 In which zone will the largest size particles be most likely to settle?
(1) A (2) B (3) C (4) D

Note that questions 84 and 85 have only three choices.

- 84 As the water in the river flows from point X to point Y, the potential energy of the river will
(1) decrease (2) increase (3) remain the same
- 85 Assuming that no uplift occurs and that erosion nearly levels the land, during the next ten thousand years the particle size carried by the river will probably
(1) become smaller (2) become larger (3) remain the same

Group 7

Directions (86-90): Base your answers to questions 86 through 90 on your knowledge of earth science and on the block diagrams below which represent 3 widely separated rock outcrops. The numbers represent sedimentary rock layers which have not been overturned. [5]



86 Which is the oldest rock layer?

- (1) 7 (2) (2) (3) 8 (4) 14

87 In outcrop A, rock layer 14 was found to be Carboniferous in age. The possible age of rock layer 9 is

- (1) Ordovician (2) Silurian (3) Devonian (4) Carboniferous

88 Which event occurred most recently?

- (1) the formation of rock layer 1 (3) the uplift of rock layer 13
(2) the fault in outcrop B (4) the formation of rock layer 5

89 Which outcrop shows that its present surface landform was controlled by crustal movement?

- (1) outcrop A, only (3) outcrop C, only
(2) outcrop B, only (4) both outcrops A and C

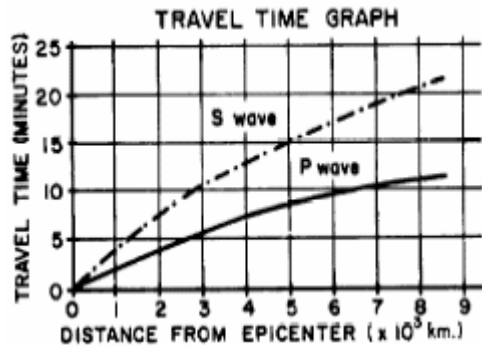
90 Which is the best explanation for the irregular surface between layers 2 and 10 in outcrop C?

- (1) Layer 10 was folded after 2 was deposited.
(2) Pressure from the layers above pushed layer 2 into 10.
(3) Volcanic action pushed layer 10 up before 2 was deposited.
(4) Layer 10 was eroded before 2 was deposited.

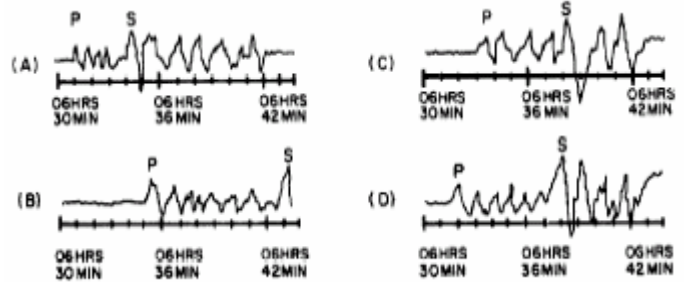
Group 8

Directions (91-95): Base your answers to questions 91 through 95 on your knowledge of earth science and on the two groups of diagrams below. [5]

The graph below shows the relationship between the travel time of P and S waves and the distance from an earthquake epicenter.



The seismograms below are records of the same earthquake recorded at four different locations: A, B, C, and D. The arrival of P waves (P) and S waves (S) is indicated on each seismogram.



- 91 Which seismogram was recorded at the station located closest to the epicenter?
 (1) A (2) B (3) C (4) D
- 92 How far will a P wave travel in seven minutes?
 (1) 10.5×10^3 km (2) 2.0×10^3 km (3) 5.5×10^3 km (4) 4.0×10^3 km
- 93 What information about the earthquake could be determined by using the P and S wave graph and only *one* of the seismograms?
 (1) the distance to the epicenter (2) the depth of the focus
 (3) the location of the epicenter (4) the direction to the epicenter
- 94 How far from the epicenter was the station that recorded seismogram D?
 (1) 1×10^3 km (2) 3×10^3 km (3) 5×10^3 km (4) 7×10^3 km
- 95 How would the seismograms have appeared if the earthquake waves had entered the fluid portion of the core before they were recorded?
 (1) The S and P waves would have been recorded at the same time.
 (2) The S wave would not have been recorded.
 (3) The S wave would have been recorded before the P wave.
 (4) The seismograms would have looked generally like those in the diagrams.

Group 9

Directions (96-100): Base your answers to questions 96 through 100 on your knowledge of earth science and on the *Earth Science Reference Tables*. [5]

96 At which location in New York State are rock outcrops of gneiss, quartzite, and marble most abundant?

- (1) 41° N, 72° W (2) 42° N, 79° W (3) 43° N, 76° W (4) 44° N, 75° W

97 Which types of fossils would most likely be found in the bedrock along the shores of Lake Ontario?

- (1) earliest fishes (2) early reptiles (3) early flowering plants (4) simple mammals

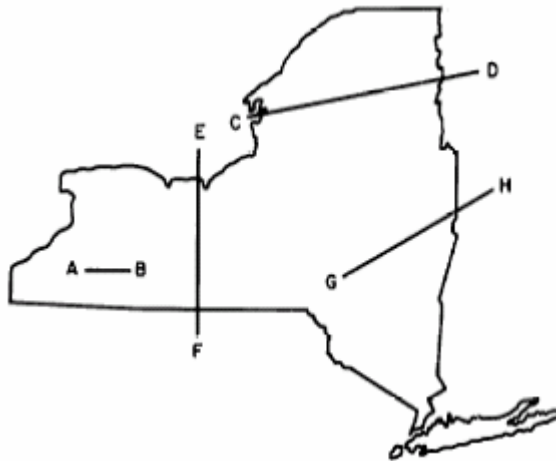
98 The surface of an area is composed mainly of glacial unconsolidated sediments and outwash. During which period of geologic time was this material deposited?

- (1) Cambrian (2) Devonian (3) Permian (4) Tertiary

99 According to the geologic time scale, which orogeny (mountain building period) occurred most recently?

- (1) Grenville (2) Taconian (3) Appalachian (4) Acadian

100 On which cross section below would rocks representing the greatest span of geologic history be found in New York State?



(1) A-B

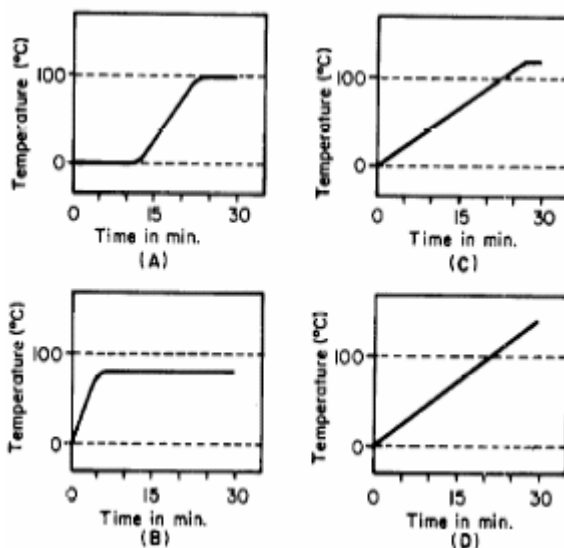
(2) C-D

(3) E-F

(4) G-H

Group 10

Directions (101-105): Base your answers to questions 101 through 105 on your knowledge of earth science and on the graphs below which represent the relationships between temperature and time for four substances (A, B, C, and D) of equal mass that were each heated with identical sources of heat. [5]



- 101 Which substance did not experience a phase change?
 (1) A (2) B (3) C (4) D
- 102 Which substance has the lowest specific heat?
 (1) A (2) B (3) C (4) D
- 103 Which two graphs show a similar rate of change in the first 15 minutes?
 (1) A and B (2) B and C (3) C and D (4) A and D
- 104 Which graph could represent ice changing to steam?
 (1) A (2) B (3) C (4) D
- 105 On graph C the temperature of the material stopped rising because the substance
 (1) could not absorb any more heat (3) may have started to freeze
 (2) may have started to melt (4) radiated heat faster than it was absorbed

Regents Earth Science

The 1973 Exam

Practice Test



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Name: _____

Class Period: _____ Due Date: _____
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**The University of the State of New York
REGENTS HIGH SCHOOL EXAMINATION
EARTH SCIENCE
Wednesday, June 20, 1973 – 1:15 to 4:15 pm only**

Answer Sheet

| | | | | | |
|------------|------------|------------|------------|------------|------------|
| (01) _____ | (11) _____ | (21) _____ | (31) _____ | (41) _____ | (51) _____ |
| (02) _____ | (12) _____ | (22) _____ | (32) _____ | (42) _____ | (52) _____ |
| (03) _____ | (13) _____ | (23) _____ | (33) _____ | (43) _____ | (53) _____ |
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| (06) _____ | (16) _____ | (26) _____ | (36) _____ | (46) _____ | (56) _____ |
| (07) _____ | (17) _____ | (27) _____ | (37) _____ | (47) _____ | (57) _____ |
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| (10) _____ | (20) _____ | (30) _____ | (40) _____ | (50) _____ | (60) _____ |

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| (61) _____ | (71) _____ | (81) _____ | (91) _____ | (101) _____ | |
| (62) _____ | (72) _____ | (82) _____ | (92) _____ | (102) _____ | |
| (63) _____ | (73) _____ | (83) _____ | (93) _____ | (103) _____ | |
| (64) _____ | (74) _____ | (84) _____ | (94) _____ | (104) _____ | |
| (65) _____ | (75) _____ | (85) _____ | (95) _____ | (105) _____ | |
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| (67) _____ | (77) _____ | (87) _____ | (97) _____ | | |
| (68) _____ | (78) _____ | (88) _____ | (98) _____ | | |
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| (70) _____ | (80) _____ | (90) _____ | (100) _____ | | |