

Key

metamorphic

(magmatic) sedimentary

Huntley 2017

metamorphic igneous

Rocks and Minerals

igneous metamorphic

igneous

metamorphic

igneous

metamorphic

igneous

metamorphic

igneous

metamorphic

Score: _____/106

Tie breakers will be determined by the first team to get a question wrong in the test order

Station 1

Name each specimen in the tray.

1. Alabaster
2. orthoclase (feldspar)
3. Calcite ~~Sp~~ Spar
4. Satin Spar
5. talc
6. Halite

16

Station 2

Classify each specimen in the tray as felsic, andesitic, mafic, or ultramafic

7. Mafic
8. felsic
9. Mafic
10. Andesitic
11. Andesitic
12. ultramafic

16

112

Station 3

Fill in the correct term(s) to complete the rock cycle.

13. Igneous Rocks
14. Weathering + Erosion
15. Deposition + Lithification
16. Metamorphic Rocks
17. Heat + Pressure
18. Sedimentary Rocks
19. Melting
20. Cooling + Crystallization

18

Station 4

List all applicable textures for each specimen in the tray.

21. porphyritic
22. foliated, coarse grained
23. well sorted, coarse grained
24. glassy, frothy
25. porphyritic
26. vesicular, fine grained

14

14

Station 5

Answer the questions below.

26. Oxygen

27. Silicates

28. it does not have a crystal structure

29. naturally occurring

inorganic

solid

crystal structure

definite chem. formula

any
order

18

Station 6

Put the rock samples (us their ID #) in order of metamorphic grade from highest to lowest.

A (high grade)

B

C

D

E (low grade)

15

13

Station 7

Name each specimen in the tray.

30. orthoclase
31. Quartz
32. Albite
33. Amazonite (microcline)
34. ~~ff~~ orthoclase
35. feldspar/orthoclase
36. Augite

Station 8

List the best possible environment of formation (from the word bank) for each specimen.

Bank: Swamp, Deep ocean, Shallow Ocean, Landslide, Wind formed dune, Beach,

37. shallow ocean
38. shallow ocean
39. beach
40. shallow ocean
41. landslide
42. landslide

17
16/13

Station 9

Classify each specimen as biochemical, chemical, or clastic.

- 43. biochemical
- 44. biochemical
- 45. biochemical
- 46. biochemical
- 47. clastic
- 48. clastic

16

Station 10

Identify the crystal system of each of the following minerals

- 49. isometric
- 50. hexagonal
- 51. isometric
- 52. hexagonal
- 53. triclinic
- 54. hexagonal

16

112

Station 11

Suppose the following rocks were heated to 2,000° C. Identify the major mineral (> 10% total composition) that would melt first from each rock.

55. Quartz

56. Plagioclase

57. Plagioclase

58. Plagioclase

59. Plagioclase

60. Olivine

1/6

Station 12

Determine the hardness of each of these minerals.

61. 4

62. 5

63. 6.0-6.5

64. 6.5-7

65. 6.5-7

66. 3.5-4.0

1/6

1/12

Station 13

Write in the correct answer to the multiple choice questions from the station.

67. D

68. C

69. D

70. B

71. B

72. B

73. E

74. C

75. B

76. D

Station 14

Write in the correct answer to the multiple choice questions from the station.

77. A

78. A

79. B

80. B

81. B

82. C

83. D

84. C

85. A

86. A

Station 15

Write in the correct answer to the multiple choice questions from the station.

87. A

88. A

89. C

90. B

91. A

92. B

93. D

94. B

95. C

96. D