

Scioly Summer Study Session 2020

Fossils

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Test length: 16 stations

Suggested time: 3 minutes per station

ANSWER SHEET

Score: ____/157

Tiebreaker score: ____/2

STATION 1: (7 pts)

Identify each fossil:

1. (A) _____
2. (B) _____
3. (C) _____
4. (D) _____
5. Which letter went extinct the latest? _____
6. How has fossil B been commonly preserved, allowing preservation of soft tissue?

7. What does the genus of fossil D mean? _____

STATION 2: (6 pts)

8. Identify the order of G _____
9. What environment did fossil G live in? _____
10. What was the diet of fossil F? _____
11. What time period did fossil F live in? _____
12. What time period did fossil E live in? _____
13. What is one hypothesized purpose of the spine sails of fossil E?

STATION 3: (12 pts)

- | | |
|-----------|-----------|
| 14. _____ | 21. _____ |
| 15. _____ | 22. _____ |
| 16. _____ | 23. _____ |
| 17. _____ | 24. _____ |
| 18. _____ | 25. _____ |
| 19. _____ | |
| 20. _____ | |

STATION 4: (7 pts)

Identify and state the genus of each fossil:

26. Fossil H _____

27. Fossil I _____

28. Fossil J _____

29. Fossil K _____

30. Which letter is an important transitional fossil? _____

31. Which letter is an anatomically intermediate between lobe-finned fishes and those that were fully capable of coming onto land? _____

32. What was the diet of fossil H? _____

STATION 5: (7 pts)

33. Which fossil could best be used as an index fossil?(W, X, Y, or Z) _____

34. List two characteristics of an index fossil:

a. _____

b. _____

35. State the best index fossil (L, M, or N) _____

State which fossil each statement correlates with:

36. Also known as “butterfly shells” _____

37. Widespread in Permian deposits _____

38. Ate zooplankton for food, had structures called lacunae _____

STATION 6: (12 pts)

39. List the strata in diagram in order from youngest to oldest (A-I):

40. What geological structure does A represent? _____

41. Explain the law of superposition: _____

STATION 6 CONTINUES ON THE NEXT PAGE

STATION 6 (cont.):

42. Explain the law of original horizontality: _____

STATION 7 (10 pts):

List the five great mass extinctions in order: (1pt each)

43. (oldest) _____

44. _____

45. _____

46. _____

47. (most recent) _____

48. Describe the environment that is theorized to have led to the Late Devonian Extinction: _____

Identify fossil O and state which extinction event it died off in:

49. _____

50. _____

50. What class was the only dinosaur lineage to survive the Cretaceous–Paleogene extinction event? _____

STATION 8 (10 pts):

Identify and state the genus of each fossil:

51. Fossil P _____

52. Fossil Q _____

53. Fossil R _____

54. Fossil S _____

55. Fossil T _____

56. Fill in the blank: Fossil _____ is the name given to the leaves of Fossil _____

STATION 8 CONTINUES ON THE NEXT PAGE

57. Which fossil is known as a “living fossil”? _____

58. Describe the historical importance of the distribution of Fossil S:

STATION 9 (12 points):

59. Describe the differences between rugose and tabulate corals: _____

Identify each fossil and state whether it is rugose, tabulate, or neither:

60. Fossil U _____

61. Fossil V _____

62. Fossil W _____

63. Fossil X _____

64. Which fossil is also known as the Petoskey stone? (State a letter) _____

65. Which fossil is commonly found in Silurian limestone with a diet of zooplankton?

STATION 10 (10 pts)

66. What geologic time period was also known as “The Age of the Trilobites”?

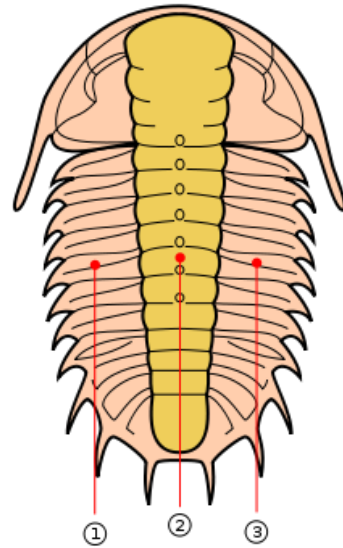
67. In what geologic time period did trilobites go extinct?

Name each anatomical structure of the diagram:

68. (1) _____

69. (2) _____

70. (3) _____



71. Which fossil was almost completely blind? _____

72. Which fossil was the oldest trilobite? _____

73. Which fossil was formerly named phacops? _____

74. State the new name: _____

75. Which fossil was the largest trilobite ever found? _____

STATION 11 (9 pts):

76. State the common name of the class for Fossil B:

77. Explain how the common name relates to the appearance and anatomy of the fossil: _____

78. Identify Fossil B:

79. State the order of fossil A: _____

80. State the time period fossil A went extinct and why extinction occurred:

81. What was the environment of fossil A?

82. (Tiebreaker) How many dermal layers of the skeleton did fossil A have?

83. True or false: Fossil A was used as an index fossil _____

STATION 12 (9 pts)

Describe the following growth forms:

84. Branching: _____

85. Fenestrate: _____

86. Massive: _____

STATION 12 CONTINUES ON THE NEXT PAGE

87. State the genus of fossil A: _____

88. What is the growth form of fossil A: _____

89. Describe the habitat of fossil A: _____

90. State the genus of fossil B: _____

91. State the mode of life of fossil B: _____

92. State the geological time period of fossil B: _____

STATION 13

93. State two reasons why specimen A is an important tool for geologists:

94. Describe how specimen A ate grabbed and ate food:

95. State the common mode of preservation in what rock type for specimen A:

Identify specimen B, C, D, E, and F

96. B _____

97. C _____

98. D _____

99. F _____

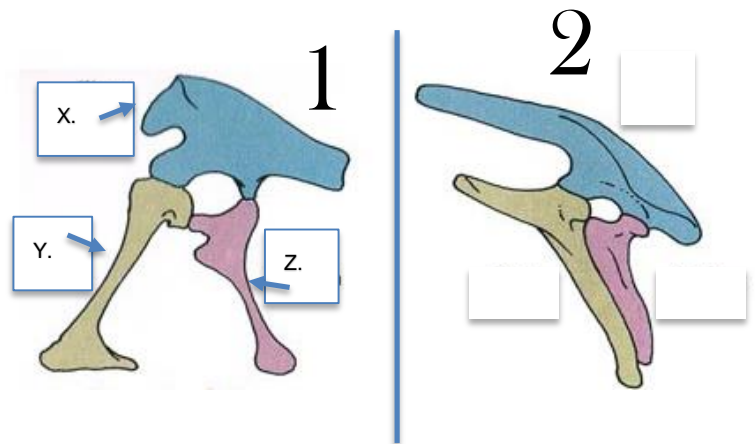
STATION 14 (11 pts)

State which Dinosauria order each bone structure matches:

100. Bone structure 1:

101. Bone structure 2:

Label the following bones:



102. X _____

103. Y _____

104. Z _____

105. Identify fossil A: _____

106. State hypothesized two functions of the horns on the lacrimal bone of fossil A: _____

107. True or False: Fossil A is a rare fossil _____

108. Describe the environment of fossil B: _____

109. How is fossil B distinguished from other dromeosaurids? _____

STATION 15 (16 pts)

For each fossil identify and state:

110. Fossil A _____

Habitat: _____

Diet: _____

Geological time period: _____

111. Fossil B _____

Habitat: _____

Diet: _____

Geological time period: _____

112. Fossil C _____

Habitat: _____

Diet: _____

Geological time period: _____

113. Fossil D

Habitat: _____

Diet: _____

Geological time period: _____

STATION 16: (6 pts)

68. Which lagerstatte is fossil A commonly found in?

69. Describe the historical importance of fossil A: _____

70. State the time period of fossil A: _____

Identify each type of trace fossil (B-D):

71. B _____

72. C _____

73. D _____

74. (Tie breaker) State another name for trace fossil:
