Holt Invitational 2015 Road Scholar Test

Welcome to summer in Michigan, a time of fun, sun, and out of doors family reunions, just like the one that your family from out of town wants to have in the Sleepy Hollow State Park. The main problem is that, while your family has maps and directions, your entire extended family seems to be, almost fatally, unable to use them; so they have insisted that you meet them at the Detroit Metro Airport and guide them to the proposed gathering site.

**Michigan Highway Map**

The first thing that you will need to do is get to know the map that you are looking at, so...

1a) On the main map, what are the grid coordinates for the city of Romulus (where Detroit Metro Airport actually is)? \_\_\_\_\_\_\_\_\_

1b) In the insert what are the grid coordinates for the area in which the Detroit County Metro Airport is primarily located? \_\_\_\_\_\_\_\_\_

2) On the main map, one inch is approximately equal to how many miles? \_\_\_\_\_\_\_\_

3) On the main map, some areas have a red line highlighted in yellow forming a box in or around an area (look at Ann Arbor on the main map). What does this box indicate?

4) Your aunt insists on driving to Lansing via Ann Arbor and Jackson as she has a weird thing for losing football teams... this path will take you along which 2 highways to get to Lansing \_\_\_\_\_\_\_ & \_\_\_\_\_\_\_

5) As you approach Ann Arbor, you see a lake to your left that dwindles to a river which you then cross. What are the names of the river \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the lake \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6) These 2 highways (from your answer to question 4) have different symbols on the map, these indicate that...

 a) \_\_\_\_ is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b) \_\_\_\_ is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) Your cousin is looking over your shoulder at the map as you are driving between Ann Arbor and Jackson and notices a marking that looks like a blue hut. Curious, she asks what it is. You reply that it is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8) As the trip continues, the cousins are getting bored and eventually, in Jackson as you turn on the highway going north, they cry, "How much further is it (to Lansing, meaning the intersection with 96)?" You reply "\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"

9) In the center of Lansing there is a star with a circle around it, what does this indicate? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10) Sleepy Hollow State Park is north east of Lansing, which exit number should you take off the highway to get there most easily? \_\_\_\_ (**for the topographical map, this is Price Rd.**)

11) What do the exit numbers indicate (other than identifying an exit)?

**Topographic Map Section (Price Quadrangle)**

As before, before moving through the country side, we need to familiarize ourselves with the map.

12) What is the magnetic declination for this map?\_\_\_\_\_\_\_

13) One inch on this map equals how many feet? \_\_\_\_\_\_\_

14) What is the basic contour interval for this map? \_\_\_\_\_\_\_

15) On the bottom right corner of the map you will find 84⁰22’30”. What does this indicate?

16) Along the right edge of the map you will find 4752000m.N. What does this indicate?

17) What system of navigation does 4752000m.N. belong to? (Use the full name for full credit)

18) What is the name of the quadrangle found south east of the Price quadrangle?

It seems that the organizer of this gathering has a rather twisted sense of humor as the directions that you’ve been given involve a bit of a walk… The directions tell you to park at Grove Bible Church and to go to the intersection of Shepardsville Road and Price Road. Let’s familiarize ourselves with the area.

19) How far is this from the east edge of the quadrangle, to the nearest 100 ft?\_\_\_\_\_\_\_\_\_\_\_

20) How far is this from the south edge of the quadrangle, to the nearest tenth of a mile?\_\_\_\_\_\_\_\_\_\_

21) What is the elevation of the south end of Grove Bible Church? \_\_\_\_\_\_\_\_\_\_

22) If you look due east of the intersection of Shepardsville Road and Price Road about 2,150 feet you will see a river, what direction is it flowing? \_\_\_\_\_\_\_\_\_\_

23) From the intersection of Shepardsville Road and Price Road, what is the azimuth to Stilson Cemetery? \_\_\_\_\_\_

24) From the intersection of Shepardsville and Price Rd take a bearing of S23⁰W and walk for 2,780 ft. What is the primary type of landform that you will be traveling through for the second half of this walk? \_\_\_\_\_\_\_\_\_\_

25) From this point take an azimuth of 184.5⁰ and walk 750 feet. What was the slope of the hill that you just climbed? \_\_\_\_\_\_\_\_\_\_\_

26) From this point take a bearing of S8⁰E and walk for 1.37 miles. This should end you at a building. What kind of building is it? \_\_\_\_\_\_\_\_\_\_\_

27) Now take an azimuth of 27.5⁰ and walk for 5300 feet. This will land you right on the edge of what type of manmade landform? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

28) Now take a bearing of N87.5⁰E and walk 12,100 feet ending yourself the family gathering which is being held at what landmark? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (yes, you have a weird family)

**Map drawing**

30) The square provided represents section 21. Write the section number on you map.

31) A light duty road traverses the map, entering at the northeast corner with an azimuth of 210⁰, traversing the map in a straight line. Draw this road.

32) An orchard occupies NE ¼ / SW ¼ / 21. Draw this.

33) A cemetery occupies the northeast corner of SE ¼ / SE ¼ / 21. Draw This

33) The land in this section is flat, except for a slope toward a hill top that is the Northwest of section 21. The base of this slope begins in SW corner of SW ¼ / NW ¼ / 21, extends to the center of the east border of SW ¼ / NW ¼ / 21, curves to the north east corner of SE ¼ / NW ¼ / 21 and exits map at the center of the top of NW ¼ / NE ¼ / 21. The elevation of this base line is 1,200 feet. Draw this contour line.

34) This hill has an elevation of 1,250 feet at the northwest corner of the map with an almost cliff like slope to the south and a gentler slope to the east. Draw contour lines with a 10 foot interval to indicate this slope.

Tie Breaker:

1) Staying on the same highway that you took north from Jackson you pass and intersection with 96, then with 496 and your cousin asks why one has a 2 number identifier (96) and the other has a 3 number identifier (496), you reply...

2) At the same time your other cousin askes why some highways are even number and some are odd numbered, you reply...