

Instructions (shown before students start the test)

There are 55 points on this practice test, you will have 30 minutes to complete. Easier questions are mixed in with more difficult questions.

Introduction (shown after students start the test)

There are three maps used in this test. Please download and open maps for answering questions. Each map is listed before the section of questions relating to the map, here is a summary of the maps:

Questions 1-6: Montana State Map (<https://drive.google.com/file/d/1nigvznOyuS7lotBxA6HK51ImJt0xdTWB/view?usp=sharing>)

Questions 7-16: Topographic Map Test Graphics Sheet (<https://drive.google.com/file/d/1LMT3HeZjxW7ERSowfhPYhJaoZDhd7Ull/view?usp=sharing>)

Questions 17-24: Coeur D'Alene Topographic Map (<https://drive.google.com/file/d/1wnr5Ko8TAWMZdN7NaTPDsn1WypHrrR34/view?usp=sharing>)

1. (1.00 pts)

Use this map for Questions 1-6: **Montana State Map** (<https://drive.google.com/file/d/1nigvznOyuS7lotBxA6HK51ImJt0xdTWB/view?usp=sharing>)

We are going on a road trip around Montana and Idaho starting in Alzada MT. The first stop will be in Jordan MT. Name the highway(s) you will use to get there as quickly as possible.

2. (1.00 pts) As we leave Alzada, what river will we cross?

3. (1.00 pts) There is an information center (rest area) along our route of travel. Name the nearest town

4. (1.00 pts) We cross over I-94 just before Miles City. How many miles long is I-94 in Montana?

5. (1.00 pts) What is the name of the State Park just northeast of Miles City?

6. (1.00 pts) Jordan is in what county?

7. (1.00 pts)

On our road trip, we find some scraps of a map in the door pocket. We are going to use the scraps to warm up for working on the Coeur D'Alene topo map.

Who is the revising agency for the map?

Use this file for Questions 7-16: **Topographic Map Test Graphics Sheet** (<https://drive.google.com/file/d/1LMT3HeZjxW7ERSowfhPYhJaoZDhd7Ull/view?usp=sharing>)

8. (1.00 pts) In what year were the boundaries current?

9. (1.00 pts) What UTM Zone is the scrap in?

10. (1.00 pts) There are two primary highways on the scrap. What is the type and number of the highway that is identified?

11. (2.00 pts) Use the contours on the scrap to determine the contour interval.

12. (1.00 pts) About 1700' north-northwest of the northeast end of the runway at Chelan Municipal Airport is a good-sized hill. What is the elevation range for the top of the h

13. (1.00 pts)

Use the middle value of the elevation range at the top of the hill and the elevation of the benchmark at the airport to determine the elevation difference between the two.

14. (1.00 pts) What is the magnetic declination indicated in degrees and direction?

15. (2.00 pts) If the true azimuth of the runway is 045° , what is the magnetic compass in an airplane indicating when it is rolling down the runway?

16. (1.00 pts) What is the named geographic feature that the airport is located on?

17. (3.00 pts)

Use this map for questions 17-24: Coeur D'Alene Topographic Map (<https://drive.google.com/file/d/1wnr5Ko8TAWMZdN7NaTPDsn1WypHrrR34/view?usp=sharing>)

As we arrive in Coeur D'Alene along US 95 from the north, we are going to head to a friend's house at the end of the ridge running northwest from Best Hill. Best Hill is located in the eastern part of East Sector 6. The house is the only one located at the end of the curving light-duty road. Measure the distance in feet from US 95 at the intersection with B Ave to the house using the roads to get there.

18. (3.00 pts)

We climb from the house to the western summit of Best Hill, indicated by the spot elevation there. The view is beautiful on this day. Especially noteworthy is Tubbs Hill on the lakeshore in downtown Coeur D'Alene. Find the azimuth from the peak we're on to the peak of Tubbs Hill.

19. (3.00 pts) Convert the azimuth from Best Hill to Tubbs Hill into a bearing.

20. (4.00 pts)

The climb up Best Hill was pretty strenuous. What is the slope in feet per hundred feet from our friend's house to the western summit of Best Hill? Use the contour line value that passes through the house for the computation.

21. (6.00 pts)

After our look over town from Best Hill, we are going to visit Harbor Island on the west side of West Sector 4 in the Spokane River. Provide the PLSS description to the quarter-quarter section of the boat ramp at the end of the road on Harbor Island.

22. (6.00 pts)

From the boat ramp, we spy a house about 0.51 miles south southeast of the ramp, sitting just east of the top of a hill and at the end of an unimproved driveway off Highland Drive. Provide the UTM coordinates in meter form for the center of the house.

23. (6.00 pts) Provide the latitude for the house in question 22.

24. (6.00 pts) Provide the longitude for the house in question 22.

Thank you for taking the Road Scholar Regional Workshop Exam!

We hope you enjoyed the test and learned something. Head over to the Teams meeting room for Road Scholar if you have questions.

Road Scholar B - Road Scholar - Region 7 January Workshops - 01-16-2021

There are three maps used in this test. Please download and open maps for answering questions. Each map is listed before the section of questions relating to the map, here is a summary of the maps:

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Questions 7-16: Topographic Map Test Graphics Sheet (<https://drive.google.com/file/d/1LMT3HeZjxW7ERSowfhPYhJaoZDhd7Ull/view?usp=sharing>)

Questions 17-24: Coeur D'Alene Topographic Map (<https://drive.google.com/file/d/1wnr5Ko8TAWMZdN7NaTPDsn1WypHrrR34/view?usp=sharing>)

1. (1.00 pts)

Use this map for Questions 1-6: Montana State Map (<https://drive.google.com/file/d/1nigvznOyuS7lotBxA6HK51ImJt0xdTWB/view?usp=sharing>)

We are going on a road trip around Montana and Idaho starting in Alzada MT. The first stop will be in Jordan MT. Name the highway(s) you will use to get there as quickly as possible.

Expected Answer: US 212, SR 59 or equivalent

2. (1.00 pts) As we leave Alzada, what river will we cross?

Expected Answer: Little Missouri (River)

3. (1.00 pts) There is an information center (rest area) along our route of travel. Name the nearest town

Expected Answer: Broadus

4. (1.00 pts) We cross over I-94 just before Miles City. How many miles long is I-94 in Montana?

Expected Answer: 248-250 mi or equivalent

5. (1.00 pts) What is the name of the State Park just northeast of Miles City?

Expected Answer: Pirogue Island (State Park)

6. (1.00 pts) Jordan is in what county?

Expected Answer: Garfield (County)

7. (1.00 pts)

On our road trip, we find some scraps of a map in the door pocket. We are going to use the scraps to warm up for working on the Coeur D'Alene topo map.

Who is the revising agency for the map?

Use this file for Questions 7-16: Topographic Map Test Graphics Sheet (<https://drive.google.com/file/d/1LMT3HeZjxW7ERSowfhPYhJaoZDhd7Ull/view?usp=sharing>)

Expected Answer: USDA Forest Service or equivalent

8. (1.00 pts) In what year were the boundaries current?

Expected Answer: 2006

9. (1.00 pts) What UTM Zone is the scrap in?

Expected Answer: (Zone) 11

10. (1.00 pts) There are two primary highways on the scrap. What is the type and number of the highway that is identified?

Expected Answer: US 97 ALT or equivalent (ALT required)

11. (2.00 pts) Use the contours on the scrap to determine the contour interval.

Expected Answer: 40' or equivalent

12. (1.00 pts) About 1700' north-northwest of the northeast end of the runway at Chelan Municipal Airport is a good-sized hill. What is the elevation range for the top of the h

Expected Answer: 1801-1839' or equivalent

13. (1.00 pts)

Use the middle value of the elevation range at the top of the hill and the elevation of the benchmark at the airport to determine the elevation difference between the two.

Expected Answer: 568' or equivalent

14. (1.00 pts) What is the magnetic declination indicated in degrees and direction?

Expected Answer: 17° E or equivalent (must have degrees and direction)

15. (2.00 pts) If the true azimuth of the runway is 045°, what is the magnetic compass in an airplane indicating when it is rolling down the runway?

Expected Answer: 028°

16. (1.00 pts) What is the named geographic feature that the airport is located on?

Expected Answer: Howard Flats

17. (3.00 pts)

Use this map for questions 17-24: Coeur D'Alene Topographic Map (<https://drive.google.com/file/d/1wnr5Ko8TAWMZdN7NaTPDsn1WypHrrR34/view?usp=sharing>)

As we arrive in Coeur D'Alene along US 95 from the north, we are going to head to a friend's house at the end of the ridge running northwest from Best Hill. Best Hill is located in the eastern part of East Sector 6. The house is the only one located at the end of the curving light-duty road. Measure the distance in feet from US 95 at the intersection with B Ave to the house using the roads to get there.

Expected Answer: 9960-10400' or equivalent

18. (3.00 pts)

We climb from the house to the western summit of Best Hill, indicated by the spot elevation there. The view is beautiful on this day. Especially noteworthy is Tubbs Hill on the lakeshore in downtown Coeur D'Alene. Find the azimuth from the peak we're on to the peak of Tubbs Hill.

Expected Answer: 201-207°

19. (3.00 pts) Convert the azimuth from Best Hill to Tubbs Hill into a bearing.

Expected Answer: S 21-27° W

20. (4.00 pts)

The climb up Best Hill was pretty strenuous. What is the slope in feet per hundred feet from our friend's house to the western summit of Best Hill? Use the contour line value that passes through the house for the computation.

Expected Answer: 39-41'/100' or equivalent

21. (6.00 pts)

After our look over town from Best Hill, we are going to visit Harbor Island on the west side of West Sector 4 in the Spokane River. Provide the PLSS description to the quarter-quarter-quarter section of the boat ramp at the end of the road on Harbor Island.

Expected Answer: Any ¼, SE ¼, NW ¼, Sec 8, T50N, R4W (must have six elements)

22. (6.00 pts)

From the boat ramp, we spy a house about 0.51 miles south southeast of the ramp, sitting just east of the top of a hill and at the end of an unimproved driveway off Highland Drive. Provide the UTM coordinates in meter form for the center of the house.

Expected Answer: 510320-380 mE 5281420-480 mN

23. (6.00 pts) Provide the latitude for the house in question 22.

Expected Answer: 47° 41' 15-22" N

24. (6.00 pts) Provide the longitude for the house in question 22.

Expected Answer: 116° 51' 41-47" W

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