Exam 2 – From the Past

Code Name: ______________________

Part 1: (70 points. Answer on this paper. 2.0 pts each unless noted.)

1. **(4.5 points)** It’s 1820 and you are living in the Mississippi-Ohio river valley. You have the following four choices for transporting 1 ton of goods. Indicate which is the cheapest (1st), second cheapest (2nd), etc. The first one has been done for you.
   - [ ] 100 miles using snails to pull the goods over a salt flat
   - [ ] 100 miles by wagon on a road
   - [ ] 100 miles upstream on a river
   - [ ] 100 miles downstream on a river

2. **(4.5 points)** It’s 1855 and you are living in the Mississippi-Ohio river valley. You have the following four choices for transporting 1 ton of goods. Indicate which is the cheapest (1st), second cheapest (2nd), etc.
   - [ ] 100 miles by wagon on a road
   - [ ] 100 miles upstream on a river
   - [ ] 100 miles downstream on a river

#'s 3 –5. **Eureka!** The lost continent of Atlantis has been found! Because of distance and a few mountains, it is still relatively hard to get to and from. However, a few intrepid colonists, about 1,000,000 have decided to settle this new land about the size and climate of Ohio. Only consider the differences explicitly mentioned in the question.

3. _____ Atlantis has everything needed to make fine, very high quality jewelry (ex. $40,000 rings). However, their local costs of production for the same quality are slightly higher (about +10%) than that in the U.S., France, Chile, Australia, Italy, etc. From an economic perspective, are the Atlantians likely to make their own very high quality or import it?
   a. make it in Atlantis
   b. import it

4. _____ Atlantis has everything needed to make concrete. However, their local costs of production are slightly higher (about +10%) than that in the United States. From an economic perspective, are the Atlantians likely to make their own concrete or import concrete?
   a. make it in Atlantis
   b. import it from the U.S.
5. ______ … and the entire U.S. has legalized marijuana. Marijuana can be consumed in the U.S.
whether it was produced locally or it is imported from abroad (tariff-free). Wood pulp, whether
made locally or imported from abroad (again, tariff-free), has always been legal in the U.S. Atlantis
has the climate to produce either wood pulp or marijuana for export. It can produce wood pulp
about 10% lower production costs than in the U.S. Likewise, it can produce marijuana about 10%
more cheaply than in the U.S. Which product is Atlantis more likely to export?
   a. wood pulp  b. marijuana
   c. Not a clue man … but, this exam really speaks to me … like, I want another brownie, man.

6. ______ What was the major points of our discussion of the Louisiana Purchase?
   a. In the short-run, non-economic issues usually dictate economic development. However, in the
      long-run, it is economic factors that dominate.
   b. While Thomas Jefferson’s love of a strong national government was not shared by later
      presidents, it left the U.S. with the precedent of much national power.
   c. High $/pound goods require much more infrastructure to produce and ship than bulk goods.
   d. Access to water transport was key to economic success, especially before railroads.

7. ______ Fogel (1968) and Mercer (1974) studied the question of whether or not western
railroads eventually earned enough profits to justify their early losses. What did they conclude?
   a. as a rule they did earn enough in the long run to justify their early losses
   b. It varies by railroad. Some did earn enough in the long run to justify their early losses.
      Some didn’t.
   c. a as a rule they did not earn enough in the long run to justify their early losses
   d. Much like the moon landings, the railroads were actually an elaborate hoax put on by the
      U.S. government.

8. ______ Bobby Fogel III is writing his dissertation in economic history in 2020. He is studying
   the Great Southern railroad, a western railroad which 1) built lines when population in those
   areas was still low, and 2) received significant government assistance. He concludes that,
   without the government subsidies, the Great Southern, in it’s early years, would have earned
   these above market returns although it would have built a little less track. Further, these results
   were expected by the railroads prior to building. Bobby Fogel, therefore, concludes, that the
government subsidies of the Great Southern were definitely not socially beneficial. Is he
correct?
   a. Fogel is definitely right. The railroad would have built ahead of demand even without the
government subsidy.
   b. Fogel could be right or wrong. While railroads can be presumed to be doing the privately
      beneficial thing, it may be socially beneficial for them to build even more and faster.
   c. Fogel is definitely wrong. It was always socially beneficial to offer extra incentives for the
      the private sector to build railroads.
9. It is 1836 and you are planning to travel from Pittsburgh to Philadelphia via canal. You will travel by canal never leaving the state of Pennsylvania. What special technological feature will you see on this canal?
   a. a low pressure steam turbine on the canal boats
   b. a high pressure steam turbine on the canal boats
   c. boats that break apart and are transported by rail over the mountains
   d. the longest (at that time) tunnel in North America
   e. screw propellers on the canal boats

10. (12 pts) Below you have map of the start of some major U.S. canals.
   • In the 1st column, indicate the canal’s name.
   • In the 2nd column, indicate (✓) which canal(s) made it across the Appalachian mountains. You can check some, none, or all of the canals.
   • In the 3rd column, indicate (✓) which canal was the most profitable. Check only 1 canal.
   • In the 4th column, indicate (✓) which carried the most traffic (tonnage). Check only 1.

<table>
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<tr>
<th>Canal Name</th>
<th>Across the Appalachians</th>
<th>Most Profitable</th>
<th>Most Traffic</th>
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11. Draw the path(s) of all the canals that made it across the Appalachians.
12. Which of the following is true of the Railroad thesis put forth by Robert Fogel?
   a. Fogel estimated that if all canal in the 1840 spending had been transferred to railroad spending (in the 1840s), the U.S. economy would have been about 2 years behind by 1850.
   b. Fogel estimated that if all canal in the 1840 spending had been transferred to railroad spending (in the 1840s), the U.S. economy would have been about 4 years ahead by 1850.
   c. Fogel estimated that if all canal in the 1840 spending had been transferred to railroad spending (in the 1840s), the U.S. economy would have been about 1 1/2 years ahead by 1850.
   d. Fogel estimated that if the railroad had never been invented, the U.S. economy would have been about 10 years farther behind in 1890.
   e. Fogel estimated that if the railroad had never been invented, the U.S. economy would have been about 1 1/2 years farther behind in 1890.

13. Which of the following is a thesis put forth by Robert Fogel?
   a. Political factors, not economic factors, determined when and where the early canals were built.
   b. The vast majority of the benefits generated by railroads would have been realized by other firms of transportation if railroads had never been developed.
   c. British canals, being privately funded for the most part, were built to a much higher quality than U.S. canals. Their superiority in canals meant the British had less to gain from railroads than the United States.
   d. British canals, being privately funded for the most part, were built to a much lower quality than U.S. canals. Their inferiority in canals meant the British had more to gain from railroads than the United States.
   e. A growing “limited government” sentiment in the South arose in the South shortly after, the Napoleonic wars. This caused southern state governments to shy away from transportation improvements and contributed to the South falling behind the North economically.

14. (3 points) Gordon works for the government. He is trying to justify building a road to be financed by general tax revenues. Pria works for a private sector firm. She is trying to convince her company to build a road financed solely by the company. Check any of the following that are true.
   _____ Pria’s firm will have to pay for many features that a government built road will not need.
   _____ Pria’s firm will not consider the external benefits of the road. Gordon’s government agency will.
   _____ Pria’s firm will have more difficulty justifying the road based on a comparison of costs and benefits.

15. Which is true of toll roads, in the early 1800s, in the U.S. as compared to Britain?
   a. The U.S. had more privately built roads. This is largely due to a philosophy that shunned government intervention.
   b. Britain had more privately built this is largely due to better access to foreign credit.
   c. The U.S. had more privately built roads. This is largely due to more natural barriers.
   d. Britain had more privately built roads. This is largely due to a higher population density.
   e. The U.S. and Britain had almost exactly the same miles of private roads per capita. British roads were typically corporations. U.S. roads were typically sole proprietorships.
16. ______  What was the Gallatin plan?
   a. a plan in the early 1800’s that was never adopted, to use national govt money to build canals
   b. a plan in the early 1800’s, proposed & adopted, to use national govt money to build canals
   c. a plan in the early 1800’s that was never adopted, to give most land in Ohio to the first company
      that built one canal and one road to Ohio.

17. ______  Who paid for most of the U.S. transportation improvements between 1800 and 1855?
   a. A mix of state government and private sources
   b. A mix of national government and private sources
   c. The U.S. national government paid more than 80%.
   d. State governments paid more than 80%.
   e. The private sector paid more than 80%.

18. ______  What is the “Credit Mobilier”?
   a. a British company that paid bribes to Virginia State Congressmen to build canals in VA
   b. a French company that paid bribes to Pennsylvania State Congressmen to build canals in PA
   c. a company formed by the Union Pacific to build the Union Pacific Railroad
   d. a U.S. government agency that offered zero interest bonds to U.S. railroads

19. ______  In what context did we discuss the “Credit Mobilier”?  
   a. Fears of foreign influence were the main thing that kept the U.S. national government from
      being a major funder of transportation improvements.
   b. Many have questioned whether the national government subsidies to railroads were justified.
   c. Fears of foreign influence were the main thing that kept U.S. state governments from being a
      major funder of transportation improvements.
   d. The private sector is generally considered to have been very inefficient at running large
      enterprises prior to the Civil War.

20. ______  Which of the following best illustrate the concept of “Anticipatory Settlement”?  
   a. A single company builds a railroad to a “vacant” part of the west in hopes that, after the railroad
      is built, the company can get Congress to pass a law giving the railroad subsidies.
   b. Three families moves to “vacant” part of the west and found a new town.  They hope their new
      town will cause a Railroad to build to the area.
   c. Two families learn that a railroad is surveying & grading (smoothing) land in a vacant part of
      the west.  The move west this year because they think the railroad will be built in a year or two.
   d. Six families buy “vacant” land out west.  Then, they sell stock to start a railroad company they
      plan to build to their lands.

21. ______  In what context did we discuss the “Anticipatory Settlement”?  
   a. while discussing the conflict between: 1) the desire to be a “first mover” when it comes to
      adopting technology, and 2) the desire to not get stuck with old technology.
   b. while discussing the conflict between the efficiency of the private sector (in building toll roads)
      versus the extra costs private firms have to pay to make their roads excludable
   c. while discussing the issue of “States’ Rights” and federal versus state funding of transportation
      improvements
   d. while discussing whether or not government subsidies to railroads were justified
#s 22 – 26: (1.5 pts each) Given the picture at right, indicate each component. The first one has been done for you.

22 1/2. _i_ SuperFrog

22. _____ the firebox

23. _____ the engine’s piston

24. _____ the engine’s cylinder

25. _____ the boiler

26. _____ Assume the piston is moving down (↓). What pressure is on the top of the piston?
   a. more than 1 atmosphere
   b. \( \approx \) 1 atmosphere
   c. less than 1 atmosphere

27. _____ Assume the piston is moving down (↓). What pressure is on the bottom of the piston?
   a. more than 1 atmosphere
   b. \( \approx \) 1 atmosphere
   c. less than 1 atmosphere

28. _____ What is this engine likely powering?
   a. a steamboat
   b. a pump for removing water from a coal mine
   c. an electric generator
   d. a cable pulling canal boats up an incline
   e. a railroad locomotive
Part 2: Answer 1 of the following 2 essays (30 points)

1. It’s finally Friday! About 9:00 tonight, you Alfred Fishlow, and Robert Fogel hanging and talking about railroad’s contribution to U.S. economic growth and development. Some dude named Mercer has also showed up.
   - What are Fishlow and Fogel’s thoughts on the topic? How do they support their arguments?
   - What does Mercer bring to the conversation?
   - You are getting tired of Al and Bob. You figure that if you “poke some holes” in their argument, maybe they will leave. What criticisms of Fishlow’s and Fogel’s arguments can you present?

2. It’s 2:30 in the morning and you are your buds (by now the bestest and mostest truest friends in the history of all human-kind the world has ever known, “I love you guys”, friends) have just bought 1-way tickets to the country of Somewhere-stan. Your plan is to win a government contract to build and run a railroad, then get rich by laundering the government money.
   - What historical example does your U.S. economic history course offer?
   - Explain, using the above historical example, explain how you will go about bilking the taxpayer and getting rich.