ECO 305: Global Macroeconomics **Name (12 points):** _____
Instructor: James M. Murray, PhD
Practice Exam 2

Multiple-Choice: 2 points each. Choose the response that best answers each question.

1. Which of the following can cause permanent disparities in long-run output per worker between countries according to the Solow growth model?

   (a) Diminishing marginal product of labor

   (b) Different population sizes

   (c) Unequal savings rates

   (d) Different levels of capital stock per worker

2. What is the definition of human capital?

   (a) Private savings used to finance physical machines and buildings used in the production of goods and services

   (b) Labor supply used in the production of goods and services

   (c) Knowledge and skills that people use in the production of goods and services.

   (d) Physical machines and buildings used in the production of goods and services

3. Which of the following will result in permanent differences in output per worker between rich and poor countries?

   (a) Different levels of capital stock per worker between rich and poor countries.

   (b) Different levels of investment in education

   (c) Different growth rates between rich and poor countries

   (d) Different wages in poor versus rich countries.

4. Which of the following is the slope of the budget constraint in the consumption / saving model (model with current consumption on the horizontal axis and future consumption on the vertical axis)?

   (a) -(1+r)

   (b) - MU_cons / MU_future_cons

   (c) - MU_saving

   (d) -w

5. Which of the following results in an **increase** in consumers' lifetime wealth, i.e. an **increase** in the net present value of lifetime income?

   (a) Increase in interest rate

   (b) Decrease in future wages

   (c) Decrease in interest rate

   (d) Decrease in current taxes, financed by an increase in future taxes

6. Which of the following would make the slope of the indifference curve between current consumption and future consumption **steeper**?

   (a) A change to prefer more future consumption at the expense of current consumption, so MU_cons decreases and MU_future_cons increases

   (b) An in increase in the interest rate

   (c) A change to more highly prefer current consumption, leading to an increase in MU_cons and a decrease in MU_future_cons

   (d) A decrease in the interest rate

7. Which of the following is the utility-maximizing choice of a consumer in response to a decrease in future income in the consumption/savings model?

   (a) Decrease in both current and future consumption

   (b) Increase in current consumption and a decrease in future consumption

   (c) Decrease in current consumption and a decrease in saving

   (d) No change in current consumption and a decrease in future consumption

8. Suppose the interest rate decreases for a borrower. Which of the following is true?

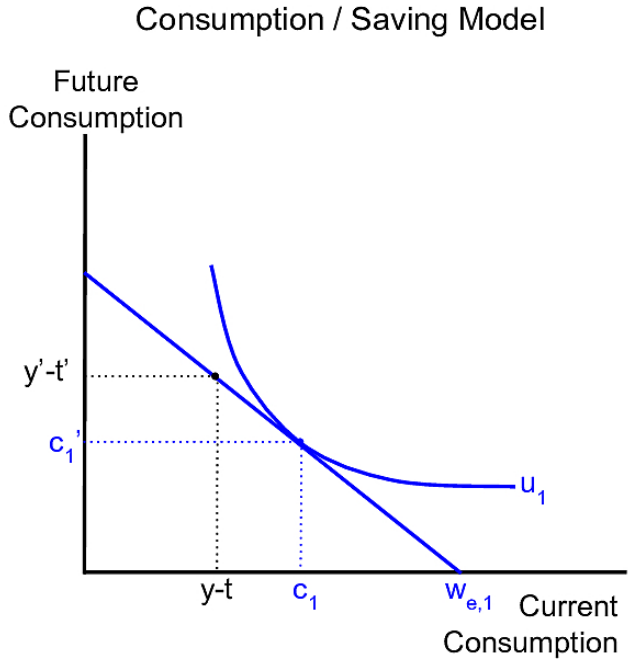
   (a) Total utility increases

   (b) Consumption in the current period decreases

   (c) Borrowing decreases

   (d) Saving increases

9. Which of the following is a TRUE statement regarding the consumer represented in this figure?



(a) Consumer is a borrower

(b) Consumer is a saver/lender

(c) Consumer has present and future consumption exactly equal to income in each period.

(d) Future consumption does not maximize utility

10. Suppose taxes **increase** in the **current period** and there is no change to current or future government expenditures. What does Ricardian equivalence predict will be the impact on consumption decisions?

(a) Decrease in current consumption and a decrease in saving

(b) Decrease in future consumption and an increase in future consumption

(c) No change in current consumption and a decrease in future consumption

(d) No change in consumption and a decrease in saving.

11. Suppose there is a **decrease** in interest rates. What is the **substitution effect** on current and future consumption?

(a) Current consumption decreases and future consumption increases

(b) Current consumption increases and future consumption decreases

(c) Both current and future consumption increase

(d) Current consumption increases and future consumption is indeterminate

12. Suppose the interest rate **decreases** for a **lender/saver**. Considering both income and substitution effects, which of the following is TRUE?

    (a) Current consumption decreases and future consumption increases

    (b) Current consumption increases and future consumption decreases

    (c) The effect on future consumption is indeterminate

    (d) The effect on current consumption is indeterminate

13. Suppose consumer confidence decreases, and therefore consumers expect a **decrease in income in the future**. Which of the following is a predicted effect from the consumption/saving model?

    (a) Saving will decrease in the current period and consumption will increase in the future.

    (b) Consumption will increase in the current period and decrease in the future period.

    (c) Consumption will decrease in the current period and saving will decrease.

    (d) Consumption will decrease in the current period and saving will increase.

14. Which of the following can cause a decrease in consumer's labor supply decision?

    (a) Decrease in interest rate

    (b) Increase in future taxes

    (c) Increase in wage

    (d) Decrease in marginal product of capital

15. Which of the following can cause an increase in the demand for labor?

    (a) Increase in the wage

    (b) Improvement in technology

    (c) Increase in people's willingness to work

    (d) Decrease in the marginal product of labor

16. Which of the following can cause a decrease in the demand for labor?

    (a) Improvement in technology

    (b) Drop in the marginal product of labor

    (c) Increase in interest rate

    (d) Decrease in wage

17. Which of the following models is behind the consumption demand curve (with the interest rate on the vertical axis and quantity of consumption on the horizontal axis)?

    (a) Investment decision

    (b) Solow growth model

    (c) Profit maximization model

    (d) Consumption / saving model

18. Which of the following models is behind the investment demand decision?

    (a) Consumption / leisure model

    (b) Solow growth model

    (c) Profit maximization model

    (d) Consumption / saving model

19. Which of the following describes a crowding-out effect?

    (a) An increase in government expenditures is financed by an increase in taxes

    (b) An increase in government expenditures leads to a decrease in leisure, partially offsetting the positive impact on real GDP

    (c) An increase in government expenditures leads to a decrease in consumption, partially offsetting the positive impact on real GDP

    (d) An increase in government expenditures leads to an increase in investment

20. Which of the following government policies will likely have the largest impact on real GDP?

    (a) Decrease in government expenditures to fund a decrease in taxes in the current period.

    (b) Decrease in taxes in the future, but funded with an increase in taxes in the present.

    (c) Permanent decrease in taxes funded by a decrease in future government expenditures

    (d) Decrease in taxes today funded by an increase in taxes in the future.

Short-Answer Problem-Solving Questions: 8 points each. Write your answer in the space provided. The instruction to "illustrate" means use a graphical economics model. The instruction to "describe" means to give a short explanation for any changes in the model (i.e. a shifting curve), and describe the final result.

21. Describe and illustrate in a growth model with human capital accumulation the impact an increase in investment in K-12 education can have on the long-run growth path of real GDP per capital in the economy.

22. Use a growth model with increasing returns to capital to describe and illustrate any reason why poor countries would not be able to catch up to rich countries in terms of output per worker. Show illustrations of time plots of real GDP per person in your answer, and have sufficient illustrations and descriptions to show where those time plots come from.

23. Use a traditional growth model to describe and illustrate any reason why poor countries would not be able to catch up to rich countries in terms of output per worker. Show illustrations of time plots of real GDP per person in your answer, and have sufficient illustrations and descriptions to show where those time plots come from.

24. Suppose a consumer is a saver/lender. Describe and illustrate the impact of an **increase in the interest rate** on current consumption, future consumption, and saving. If the income and substitution effects work in opposite directions to make one or more outcomes indeterminate, explain this.

25. Suppose consumer confidence falls and that consumers expect lower incomes in the future. Describe and illustrate the impact on current consumption, future consumption, and saving. If the income and substitution effects work in opposite directions to make one or more outcomes indeterminate, explain this.

26. Suppose the government decreases current taxes and makes no changes to future or current government expenditures. Use the intertemporal government budget constraint and the intertemporal consumer's budget constraint to describe the impact on lifetime income.