***Part 1. Multiple Choice (Choose the BEST Answer, 80%)***

1. In a general equilibrium setting, the demand curves for final goods and services are determined by

   a) profit maximization by firms.
   b) cost minimization by firms.
   c) profit maximization by consumers.
   d) utility maximization by consumers.

2. A decision maker has a utility function $U = \sqrt{I}$ . This decision maker is

   a) risk-gaining.
   b) risk-neutral.
   c) risk-loving.
   d) risk-averse.

3. Asymmetric information refers to

   a) bad information.
   b) incomplete information.
   c) misleading information.
   d) differences in the amount of information the parties have.

4. To deal with moral hazard the insurance company should

   a) fully indemnify its policy holders.
   b) require applicants to take a physical examination.
   c) periodically observe the policy holder's driving habits.
   d) require policy holders to pay a deductible.

5. Which of the following should the insurance company not do to deal with adverse selection?

   a) raise the insurance premium.
   b) offer an array of different policies to allow consumers to select the one they most prefer.
   c) sell insurance to groups rather than individuals.
   d) charge higher premiums to individuals with higher risk and lower premiums to individuals with lower risk.

**GAME 1**

*Player B*

| *Player A* | | **B1** | **B2** |
|---|---|---|---|
| | **A1** | 7, 3 | 5, 10 |
| | **A2** | 3, 8 | 9, 6 |

6. In Game 1 above,
   a) Player A has a dominant strategy.
   b) Neither player has a dominant strategy.
   c) Both players have dominant strategies.
   d) Player B has a dominant strategy.

7. Which of the following statements regarding a monopolist's profit maximizing condition is false?
   a) The monopolist's profit-maximizing price will be greater than marginal cost for the last unit supplied.
   b) A monopolist can earn positive economic profit.
   c) Because monopoly price is above marginal cost and a monopoly earns positive economic profit, there are no benefits to consumers in the monopoly market.
   d) Price equals average revenue at the profit-maximizing quantity of output.

8. When a tax is imposed on the producers of a product, who bears the burden of the tax?
   a) The consumers.
   b) The producers.
   c) The consumers and producers bear an equal burden.
   d) The consumers and producers each bear some part of the burden.\

9. Which of the following is not an assumption of a perfectly competitive market?
   a) Fragmented industry
   b) Differentiated product
   c) Perfect information
   d) Equal access to resources

10. Suppose Joe starts his own business. In the first year the business earns \$100,000 in revenue and incurs \$75,000 in explicit costs. In addition, Joe has a standing offer to come work for his brother for \$50,000 per year. Joe's accounting profit is _________ and Joe's economic profit is __________.

a) \$25,000 and \$50,000
b) \$25,000 and \$-25,000
c) \$50,000 and \$25,000
d) \$-25,000 and \$25,000

11. Suppose $Q^d = 100 - P$ and $Q^s = 3P$. At the market equilibrium, the price elasticity of supply is

a) elastic
b) inelastic
c) unitary elastic
d) 1/3

12. Suppose in a market that market demand is $Q^d = 100 - P$ and market supply is $Q^s = 3P$. If the typical firm in the industry has $STC = 200 + Q + 4Q^2$ and $SMC = 1 + 8Q$, how many units should the typical firm produce to maximize profit?

a) 2
b) 5
c) 4
d) 3

13. When the price of all inputs increase by the same percentage,

a) the firm's total cost curve will rotate upward by a higher percentage if the firm's production technology exhibits decreasing returns to scale.
b) the firm's total cost curve will rotate upward by a higher percentage if the firm's production technology exhibits increasing returns to scale.
c) the firm's total cost curve will rotate upward by the same percentage.
d) the firm's total cost curve will remain unchanged since the cost-minimizing combination of inputs is unchanged.

14. Consider the Cobb-Douglas production function $Q = 25K\sqrt{L}$. The average cost function associated with this production technology will exhibit

a) diseconomies of scale.

b) economies of scale.
c) neither economies nor diseconomies of scale.
d) indeterminate scale economies since the level of output and the prices of the inputs are unknown.

15. Identify the truthfulness of the following statements.

I. When marginal cost is rising, average total cost is rising.
II. When marginal cost is below average total cost, average total cost is falling.

a) Both I and II are true.
b) Both I and II are false.
c) I is false; II is true.
d) I is true; II is false.

16. When the elasticity of substitution between capital and labor is low,

a) the capital-labor ratio will be low.
b) the labor demand curve will be a flat line.
c) labor demand will be price elastic.
d) labor demand will be price inelastic.

17. The production function $Q(L,K,M)=25K^{0.5}L^{0.5}M^{0.5}$ exhibits

a) either decreasing or constant returns to scale, but more information is needed to determine which one.
b) decreasing returns to scale.
c) constant returns to scale.
d) increasing returns to scale.

18. Evaluate the truthfulness of the following statements.

I. All points to the interior of the budget constraint are affordable.
II. All points that lie on the budget constraint cost the same amount of money.

a) Both I and II are false.
b) Both I and II are true.
c) I is true; II is false.
d) I is false; II is true.

19. Economists describe consumer choice as a constrained optimization problem. What is the consumer trying to do?

a) Maximize income subject to the budget constraint.
b) Maximize the budget constraint.
c) Maximize utility subject to the budget constraint.
d) Maximize market baskets.

20. Identify the truthfulness of the following statements.

I. Ordinal utility gives us information about which basket the consumer prefers and the magnitude of the preference.

II.

II. Cardinal utility gives us information about which basket the consumer prefers but not about the intensity of those preferences.

a) I is false; II is true.
b) I is true; II is false.
c) Both I and II are true.
d) Both I and II are false.

21. Which of the following statements is false?

a) When indifference curves are negatively sloped, they are convex to the origin.
b) When a consumer prefers more to less of a good, the consumer's indifference curves are negatively sloped.
c) When the marginal utilities of goods $X$ and $Y$ are positive, the consumer's indifference curves are negatively sloped.
d) When a consumer has diminishing marginal utility, the consumer's indifference curves are convex to the origin.

22. Consider the demand curve $Q^d = 100 - 5P - 7S$. If the value of $S$ falls, the demand curve will

a) shift to the right
b) shift to the left
c) remain unchanged
d) rotate along the quantity axis

23. Suppose the cross-price elasticity for two goods is negative. The two goods are

a) complements
b) substitutes
c) normal goods

d) inferior goods

24. Which of the following statements regarding exogenous and endogenous variables is correct?

a) Endogenous variables will always be determined within the model.
b) Exogenous variables, because they are determined outside the model, tend to be mostly irrelevant to the model's solution.
c) Exogenous variables, because they are variable, typically change within the model as endogenous variables change.
d) The values for the endogenous variables are impossible to predict since we can never be certain of the values for the exogenous variables.

25. If two goods are perfect substitutes, then

a) the marginal rate of substitution is constant.
b) the indifference curves are straight lines.
c) the indifference curves are "L-shaped."
d) both a) and b) are true.

26. According to the classical dichotomy, which of the following is influenced by monetary factors?

a) real wage
b) nominal wage
c) real interest rate
d) Both a and b are correct.

27. Which of the following is not a "flow" variable?

a) labor services
b) consumption expenditure
c) government debt
d) income

28. In calculating GDP, "transfer payments" are

a) included because they are re-valuations of existing wealth.
b) excluded because used goods already counted the year they were produced.
c) included because they are payments for labor services.
d) excluded because no goods or services were produced in exchange for them.

29. Consider an initial IS-LM equilibrium with normally-sloped curves. An increase in government spending takes us to a new equilibrium with __________ income and ____________ interest rate.

a) an unchanged, a higher
b) an unchanged, a lower
c) higher, a higher
d) higher, a lower

30. An increase in the marginal propensity to consume would cause the IS curve to

a) make a parallel shift to the right.
b) rotate to become flatter from its vertical intercept.
c) rotate to become steeper from its vertical intercept.
d) make a parallel shift to the left.

31. In a "liquidity trap"

a) the nominal interest rate on short-term assets is relatively high.
b) the LM curve is a vertical line.
c) the demand for money is infinite.
d) money supply changes have a strong impact on interest rates.

32. When (if at all) can the crowding-out effect be prevented?

a) when the Fed decreases the money supply to accommodate the expansionary fiscal policy
b) when the real money supply is held constant
c) when the real balance effect is working
d) when the Fed allows the real money supply to increase sufficiently to keep the interest rate from rising

33. If the Fed's goal is to keep the interest rate fixed, a contractionary fiscal policy must be accompanied by ______ monetary policy that shifts the LM curve to the ______.

a) an expansionary, right
b) a contractionary, left
c) a contractionary, right
d) an expansionary, left

34. A tax decrease shifts the IS curve, causing a ______ domestic interest rate, leading to ___________ of the dollar.

a) higher, depreciation
b) higher, appreciation
c) lower, depreciation
d) lower, appreciation

35. According to PPP theory, the rate which the U.S. dollar appreciates against the British pound is equal to

a) the British nominal interest rate minus the U.S. nominal interest rate.
b) the British real interest rate minus the U.S. real interest rate.
c) the British inflation rate minus the U.S. inflation rate.
d) the U.S. nominal GDP growth rate minus the British nominal GDP growth rate.

36. An "easy money, easy fiscal" policy combination would shift AD

a) upward to the left and raise the price level.
b) downward to the left and raise the price level.
c) upward to the right and raise the price level.
d) downward to the left and lower the price level.

37. The long-run aggregate supply curve is

a) vertical at the natural level of income.
b) horizontal at the natural price level.
c) upward-sloping for all income levels below the natural level of income.
d) downward-sloping for all income levels above the natural level of income.

38. modeling a small open economy, we add to the IS-LM diagram a BP line that is

a) horizontal at the natural real GDP.
b) horizontal at the world interest rate.
c) vertical at the natural real GDP.
d) vertical at the world interest rate.

39. A principle difference between the original Keynesian model and the new Keynesian model is that in the new version

a) the traditional assumptions of profit maximization is no longer included.

b) monetary policy is impotent.

c) wages and prices adjust slowly to market conditions.

d) All of the above are correct.

40. Keynes's "speculative motive" for holding money

a) was based on the behavior of speculators who make gains by switching their asset holdings between bonds and common stocks.

b) assumed that as the interest rate rose speculators would move form bonds to money.

c) assumed that as the interest rate fell speculators would move from money to bonds.

d) assumed that there was some "normal" interest rate to which the market would return.

***Part 2. Essay Problems (20%)***

**Your grade depends on the quality of your reasoning, not conclusion. Please clearly show how the answers are derived.**

Consider the following economy:

$C = .75(Y\text{-}T)$

$I = 9000\text{-}200r$

$G = 2000$

$T = 2000$

$M^S = 1{,}4000$

$M^d = Y - 400r$

(a) Calculate the IS and LM curves. Use these curves to determine equilibrium interest rates and output. (5%)

(b) Suppose that both G and T rise by 1200 to G = T = 3200. Calculate what will happen to Y* and i*? (5%) Can you explain the intuition behind what is going on here? (5%) Provide a graph to support your explanation (5%).