

Practice Test 1 : Q M: 25 Questions: Economics: 5 Questions

1. Which of the following is a primary source of data?
 - a. Bloomberg data source
 - b. Bank of England website
 - c. Data gathered by questionnaires**
 - d. Bank for International Settlements website

2. Which of the following statements are true?
 - I. Continuous data can take any values
 - II. Discrete data can take specific values
 - III. Ordinal data is a data organized in ranks
 - a. II only
 - b. II and III
 - c. I and II
 - d. All statements are true**

3. Monthly rates of return are as follows:
7%; 9%; 5%; -1%; 8%; 0%; -2%; -7%, 7%, -1%, 7%, 0%. What is the mode of this data?
 - a. 7%**
 - b. 5%
 - c. 3%
 - d. -1%

4. Annual returns for last four years are as follows: 5%, -2%, 5%, -15%? *Geometric Mean*
 - a. 2.11%
 - b. 3.02%
 - c. -2.11%**
 - d. -3.02%
$$\left[(1+5\%) (1-2\%) (1+5\%) (1-15\%) \right]^{1/4} - 1$$

5. Which of the following statements is true? *strength also*
 - a. The correlation coefficient shows the nature of but not the strength of relationship between two variables
 - b. R-squared measures the goodness of fit of a regression model**
 - c. R-squared will have a value between -1 and +1.
 - d. A correlation coefficient has the value between 0 and +1.

-1

6. A credit card charges 2.5% interest per month on outstanding credit balances. The annual percentage rate (APR) charged to two decimal places is:

Important! You should enter the answer only in numbers strictly using this format: 00.00

Effective rate ←

34.49

$$(1 + 2.5\%)^{12} - 1 \quad \% \quad 00.0$$

7. An initial amount of £100,000 is invested at a constant rate of 2%. Interest earned is continuously compounded. What is the value of the investment after 10 years?

- a. £120,000
- b. £121,899
- c. **£122,140**
- d. £123,543

$$FV = PV e^{r \cdot T} \\ = 100000 e^{2\% \times 10}$$

8. A sample taken by selecting every 10th item from a list of population members is best described as being a:

- a. Stratified sample
- b. Random sample
- c. **Systematic sample**
- d. Decimal sample

9. What is the present value of a five year annual 6% coupon bond if the discount rate is 5.5%?

- a. £100.86
- b. £101.34
- c. **£102.14**
- d. £102.78

X

10. What is the value of the rebased index in year 2 if the index in year 5 is rebased to a value of 100? Values of index are as follows: Year 1: 94; 2: 96; 3: 106; 4: 113; 5: 120

Important! You should enter the answer only in numbers strictly using this format: 00 or 000

80

$$\frac{96}{120} \times 100$$

11. Which of these indices is constructed as an unweighted arithmetic index?

- a. S&P 500 } Market value weighted
- b. CAC 40 }
- c. Nikkei 225 unweighted → price: DJIA
- d. DAX - Market Value

Study the following information and answer the questions from 12 to 15. The companies are grouped depending upon growth rate in earnings.

Range	frequency f_i	X_i
Growth rate earnings	Number of Companies	Mid points
0 to 5% $(0+5)/2$	25	2.5%
6% to 10% $(6+10)/2$	73	7.5%
11% to 15% $(10+15)/2$	86	12.5%
16% to 20% $(15+20)/2$	16	17.5%

} Sum
200

12. What is the relative frequency of the interval 11% to 15%?

- a. 43%
- b. 37%
- c. 45%
- d. 92%

→ proportion

$$86/200$$

13. What is the proportion of companies having growth rate below 10%? Your answer must be in the format: 00.0

49.0

$$\frac{25+73}{200}$$

→ All below this: Cumulative

14. The cumulative relative frequency of third interval is closest to:

- a. 88%
- b. 92%
- c. 96%
- d. 99%

$$\frac{25+73+86}{200}$$

15. What is the arithmetic mean growth rate from the above distribution?

- a. 11.115%
- b. 8.995%
- c. 10.105%
- d. **9.825%**

16. Assume that in an exam 12,000 students appeared. Their scores were distributed normally. The mean score was 71% and the standard deviation of scores was 7%. Given this what proportion of students must have scored marks between the range of 57% and 85%?

- a. 34%
- b. 68%
- c. 90%
- d. **95%**



17. A researcher is testing a null hypothesis of mean equity returns being equal to zero. He calculates the test statistic of 3.02 and rejection points of -1.96 and +1.96. Given this we may conclude that

- a. **Null hypothesis must be rejected**
- b. Alternative hypothesis must be rejected
- c. Whether null hypothesis is rejected or not depends on probability distribution
- d. No decision regarding null hypothesis can be taken from the given information

Handwritten note: Test static > 1.96
 3.02
 \hookrightarrow reject H_0

18. What is the coefficient of determination if total variance is 625 and sum of squares predicted is 400?

- a. 0.36
- b. **0.64**
- c. 1.56
- d. 0.52

$$SS_y = SS_f + SS_e$$
$$625 = 400 + 225$$
$$R^2 = \frac{SS_f}{SS_y} = \frac{400}{625}$$
$$R^2 = 1 - \frac{SS_e}{SS_y}$$

19. Analysing large amounts of data to identify patterns to find empirical relationship between two variables for which there is causal relationship is called?

- a. Data manipulation
- b. Data mining**
- c. Data digging
- d. Database management

20. The method of establishing the parameters 'a' and 'b' when undertaking bivariate regression is referred to as:

- a. The most squares method
- b. The least squares method**
- c. The sum of squares method
- d. The sum of residual method

21. Which of the following values must be the observed value in a data set?

- a. Arithmetic mean
- b. Geometric mean
- c. Median
- d. Mode**

$$5,7 = 6$$

22. The NPV of the following investment given its cash flows is closest to? Assume cost of capital of 9%.

Time Period	0	1	2	3	4
Cash Flows	-900	240	440	310	170

- a. 50**
- b. 57
- c. 44
- d. 62

$$-900 + \frac{240}{1.09} + \frac{440}{1.09^2} + \frac{310}{1.09^3} + \frac{170}{1.09^4}$$

23. The IRR of the following investment given its cash flows is closest to?

Time Period	0	1	2	3	4
Cash Flows	-900	240	440	310	170

- a. 9.2%
- b. 10.3%
- c. **11.6%**
- d. 12.9%

$$0 = -900 + \frac{240}{1+r} + \frac{440}{(1+r)^2} + \frac{310}{(1+r)^3} + \frac{170}{(1+r)^4}$$

24. Conflict in ranking of investments, as per NPV and IRR, may occur due to which of the following?

- a. Significant difference in initial investments
- b. Different cash flow patterns for the investments
- c. **Both of the above reasons**
- d. None of the above reasons

25. Given the following data, calculate the Geometric Index for Year 1 assuming Year 0 as base year.

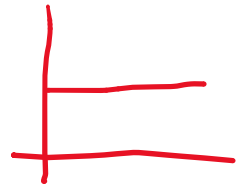
Your answer must be in the form of 00.00 Or 000.00

	Price of Stock A	Price of Stock B	Price of Stock C
Year 0	440	80	260
Year 1	470	72	305

112.78 ~~104.09~~ $\left(\frac{470}{440} \times \frac{72}{80} \times \frac{305}{260} \right)^{\frac{1}{2}} \times 100$

26. Which of the following is NOT a condition of perfect competition?

- a. Purchasers are unable to influence the price of a product
- b. **Firms face a vertical demand curve**
- c. Products are homogeneous
- d. Individual suppliers have negligible impact on total market supply



27. A 5% rise in the price of coffee led to a 15% decrease in the quantity of coffee demanded, what is the price elasticity of demand for coffee?

- a. **-3.0**
- b. -0.33
- c. 0.33

$$e_p = \frac{\% \Delta Qty}{\% \Delta price} = \frac{-15\%}{5\%}$$

d. +3.0

28. Consider the following statements.

→ Not optional

- I. Keynesian unemployment is involuntary
 - II. Keynesian unemployment is due to the slow adjustment of wages and prices
 - III. Keynesian unemployment is not related to aggregate demand deficiency
- Which of the following is / are correct?

- a. I and III are true, II is false
- b. All three are false
- c. I and II are true, III is false**
- d. II and III are true, I is false

29. The money multiplier relates the change in the money supply to changes in

- a. Government expenditure
- b. Narrow money
- c. Broad money

d. Monetary base → Deposits

30. Fiscal policy can help to automatically stabilize the aggregate level of output in an economy because:

- a. Monetary policy is redundant
- b. Tax revenue rises with output, leading to a larger budget surplus or smaller deficit**
- c. Economic growth is insensitive to tax changes
- d. The multiplier is less than 1