FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BA Degree Examination, November 2018

BECO3B03 - Quantitative Methods for Economic Analysis –I

(2015 Admission onwards)

Max. Time: 3 hours   Max. Marks: 80

PART A

Answer All Questions

Each question carries ½ marks

Multiple Choices:

1. ....is the value that occurs most frequently in a set of data

    (a) Mean   (b) Range

    (c) Median   (d) Mode`

2. The ....Divide the data into 10 equal regions.

    (a) Percentiles   (b) Deciles

    (c) Quartiles   (d) Median

3. Weather or climate changes are examples of ....

    (a) Secular Trend   (b) Cyclical variation

    (c) Irregular Variation   (d) Seasonal Variation

4. The square root of Standard Deviation is called

    (a) Variance   (b) Kurtosis

    (c) Correlation   (d) Dispersion

5. What is the Median of 1,3,5,2,6,4,7?

    (a) 2   (b) 5

    (c) 6   (d) 4

6. The best average to analyze speed is:

    (a) Harmonic Mean   (b) Geometric Mean

    (c) Mean   (d) Median

7. Kurtosis means...................

    (a) Lack of symmetry   (b) Bulginess

    (c) Normal curve   (d Skewness

8. What is the Range of 20, 35,25,30,15?

    (a) 15   (b) 35

    (c) 25   (d) 20

9. When r = 0.6 the co-efficient of determination =...............

    (a) 0.36   (b) 0.12

    (c) 1.6   (d) 0.64

10. Root Mean Square Deviation is also known as

    (a) Variance   (b) Standard Deviation

    (c) Mean Deviation   (d) Quartile Deviation

11. The value of perfect correlation is

    (a) 1   (b) 0

    (c) -1   (d) 2

12. The estimation of the unknown value of one variable from the known value of the other Variable is called...............

    (a) Regression analysis   (b) Correlation analysis

    (c) Time series analysis   (d) None of the above

12 x 1/2= 6 Marks

PART B

Answer any 10 Questions

Each question carries 2 marks

13. Define statistics.

14. What is the equilibrium price and quantity given by $Q_d= 2 - 0.2 p$ and $Q_s= 0.2 + 0.7p$?

15. In a moderately asymmetrical distribution mean is 24.6 and median is 25.1 .Find the Value of Mode.

16. What are the merits and demerits of Standard Deviation?

17. What are the properties of regression lines?

18. What is Gini Coefficient?

19. Distinction between correlation and regression.

20. If $r = 0.8$ and $N = 81$ find out the probable error of the coefficient of correlation.

21. Calculate SD and CV of the numbers 1 to 10.

22. What are the properties of Correlation Coefficient?

23. Examine the use of statistics in economics.

24. Find the slope of the line joining points (2, 3) and (4, 9)

10 x 2= 20 Marks

PART C

Answer any 6 Questions each question carries 5 marks

25. Calculate Mean, Median and Mode for the following data.

Classes	4-8	8-12	12-16	16-20	20-24
Frequency	3	7	16	8	2

26. Write notes on Lorenz curve.

27. Distinguish between Skewness and Kurtosis.

28. What are the problems in the construction of index numbers?

29. What are the different types of correlation?

30. If $\sum p_0 q_0 = 700$, $\sum p_0 q_1 = 532$, $\sum p_1 q_0 = 875$, $\sum p_1 q_1 = 658$. Find Laspeyer's Index Number and Fisher's Index Number. Also show that latter one satisfies Time reversal and Factor reversal tests.

31. Find Harmonic Mean from the following data

Size	0-10	10-20	20-30	30-40	40-50
Frequency	24	25	29	32	35

32. Distinguish between Questionnaire and Interview schedule.

6 x 5= 30 Marks

PART D

Answer any 2 Questions each question carries 12 marks

33. Find the rank correlation coefficient from the following data.

X	44	42	40	52	39	32	24	46	41	50
Y	24	25	29	32	35	36	41	45	48	52

34. Define Positional averages and state their merits and demerits.

35. What is a measure of Dispersion? Briefly explain different measures of dispersion.

36. Calculate Mean, Median and Mode for the following data.

Classes	4-8	8-12	12-16	16-20	20-24
Frequency	3	7	16	8	2

2 x 12= 24 Marks

1B3N18164   (Pages : 2)   Reg. No:..........................

Name: ....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BA Degree Examination, November 2018

BECO3B04 - Macro Economics I

(2015 Admission onwards)

Max. Time: 3 hours   Max. Marks: 80

Part A. Objective type questions   *Answer all questions*

1. _____was chairman of "National Income Committee" set up in 1949.
   - a) Amartya Sen
   - b) P.C Mahalanobis
   - c) V.K.R.V. Rao.
   - d) Prof. D.R Gadgil
2. Who among the following belong to Monetarist School?
   - a) Milton Friedman
   - b) Robert Lucas
   - c) Anna Schwarts
   - d) both a&c
3. Which among the following is not a subject matter of macroeconomics?
   - a) Inflation
   - b) Economic growth
   - c) Rural Development.
   - d) Fiscal deficit
4. _____is not included in the estimation of aggregate output.
   - a) Production for own consumption
   - b) Goods sold in market
   - c) Input kept as inventory
   - d) output kept as inventory
5. Which of the following is not true in case of classical theory.
   - a) Full employment
   - b) Perfect completion in labour market
   - c) Money has speculative demand
   - d) Wages and prices are flexible.
6. The failure of labourers to understand the impact of rising inflation on real income is known as
   - a) Classical dichotomy
   - b) Money illusion
   - c) Neutrality of money
   - d) Velocity of money.
7. In classical theory supply curve of capital is -------
   - a) Upward sloping
   - b) Downward sloping
   - a) Horizontal
   - b) Vertical
8. According to Keynes increase in consumption in response to increase in income is

   _____
   - a) Less than propionate
   - b) More than proportionate
   - c) Equally proportionate.
   - d) None of the above.
9. Marginal Efficiency of Capital is downward sloping due to
   - a) Low consumption
   - b) Low saving
   - c) Law of diminishing returns
   - d) higher inflation
10. The multiplier impact of increase in autonomous investment depends on the value of
    - a) MPC
    - b) APC
    - c) Interest rate
    - d) MEC
11. Relative income hypothesis is proposed by
    - a) Keynes
    - b) Duesenberry
    - c) Modigliani
    - d) Friedman

12. Friedman assumed that MPC from transitory income is ___

    a) 1   b) less than 1

    c) 0   c) between 0 and 1.

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(12 x 1/2 = 6 Marks)

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Part B *Very Short Answer Type Questions.* Answer any 10 questions.

13. Define macroeconomics?
14. What you mean by net factor income from abroad?
15. What is meant by fallacy of composition?
16. Define GDP deflator.
17. What is meant by classical dichotomy?
18. What is production function under classical model.
19. What you mean by Pigou's wage cut theory.
20. What are the components of aggregate demand?
21. Define Marginal efficiency of capital?
22. State Keynesian Psychological law of consumption.
23. Define demonstration effect?
24. What is meant by consumption puzzle of Kuznet?

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(10 X 2 = 20 Marks)

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Part C *Short Essay Type Questions.* Answer any 6 questions.

25. Discuss the difficulties in national income estimation in India.
26. How do you connect output with income? Explain.
27. Explain the limitations of macroeconomics?
28. Explain the case of underemployment equilibrium in Keynesian theory.
29. Elaborate Say's law of market and its implications.
30. Compare the Keynesian and Classical Systems.
31. Explain classical theory of money.
32. Briefly discuss various components of aggregate expenditure.

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(6 X 5 = 30 Marks)

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Part D *ESSAY Type Questions.* Answer any 2 questions.

33. Explain classical theory of employment and output determination.
34. Discuss the life cycle hypothesis of consumption.
35. Discuss the Keynesian cross analysis of three sector model.
36. Explain in detail how output is measured in India's National account statistics.

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(2 X 12 = 24 Marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BA Degree Examination, November 2018

BECO3C04 – Mathematical Methods for Economics III

(2015 Admission onwards)

Max. Time: 1.5 hours   Max. Marks: 40

PART A

Answer *all* questions

A-Objective Type Questions

1. The condition for the convexity is equal to the sufficient condition of................

    a) Maxima   b) minima   c) inflectional   d) both a and b

2. Suppose the price of a product increases from Rs12 to Rs 20 and the quantity demanded falls from 55 a week to 45. What is the Price Elasticity of Demand?

    a) 0.4   b) -0.4   c) 2.5   d) -2.5

3. A demand function is given by: $Q_d = 52 - P^2$ At the point $(P, Q) = (2,48)$ the price elasticity of demand

    $PED = \dfrac{P}{Q} . \dfrac{dQ}{dP}$

    is equal to:

    a) $2 - 104/Q$ b) $-1/6$ c) $-1/8$ d) -4

4. For the demand and supply functions, $Q_d = 10 - P$, $\dot{Q}_S = 3P - 2$, the equilibrium (P_0, Q_0) is :

    a) (6,4)   b) (5,5)   c) (7,3)   d) (3,7)

5. $y = 100/x + 4x$ has

    a. a maximum point where $x = 5$

    b. a minimum point where $x = 5$

    c. a maximum point where $x = -5$

    d. a minimum point where $x = -5$

6. $f(x) = 3x^3 - 4x^2 + 10$ implies

    a. $f(1) = 10$

    b. $f'(x) = 9x^2 - 8x + 10$

    c. $f''(x) = 18x - 8$

    d. $f'(2) = 20$

                                                     (6 x ¼ =3Marks)

Part B
(Very Short Answer Type Questions)
Answer *any 6* questions

7. Find the relative extreme value of the function $y = 2x^2 - 16x + 50$

8. The consumption function for an economy is given by $c = 50 + .4y$. find MPC and MPS

9. For a firm, given that $c = 100 + 15x$ and $p = 3$. find profit function.

10. Explain the relationship between MC and AC

11. Define market demand function.

12. Mathematically explain the concept of convexity and concavity. Give suitable example.

13. The demand function $p = 50 - 3x$. Find MR

14. The total cost function is $TC = 60 - 12x + 2x^2$. Find the MC

(6×2=12 Marks)

Part C (Short Essay)
Answer *any three* questions

15. Explain the importance of mathematical economics.

16. If $D = 40 - 5p$ and $S = 30 - p$ are the demand and supply functions in a market show that a specific tax of Rs 1 per unit will cause a decline in the market price.

17. Distinguish between total differential and total derivative

18. If AR=6, MR=4 find price elasticity of demand.

(3×5=15 Marks)

Part D (Essay Questions)
Answer any *one* of the following questions

19. a) A monopolist is facing a linear demand, $Q = 360 - 20P$. His linear cost function is given by $TC = 6Q + .05Q^2$. Calculate the equilibrium price, quantity and the maximum profit.

20. Write a note on extreme value. Find the extreme value of the function

$f(x,y) = 3x^3 - y^3 - 15x + 35y + 100$

(1×10=10 Marks)