33

2B3N24051 (Pages : 3) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BA Economics Degree Examination, November 2024

BEC3B03 – Quantitative Methods for Economic Analysis – I

(2022 Admission onwards)

Time: 2 ½ hours Max. Marks: 80

Section-A

(Each question carries 2 Marks.
Maximum Marks that can be scored in this section is 25)

1. Why is it important to measure central tendency in statistics?
2. Find out the HM and GM based on the following values, (2,4,8,16,32)
3. Define lepto-kurtic and platy-kurtic distributions.
4. Define Ogives. What information do they provide in statistical analysis?
5. What is the purpose of index numbers in economics? Explain why they are essential for economic analysis.
6. Explain the need for measuring the variation of data. Distinguish absolute and relative measures of variation
7. Given the following data:
   number of observations =100; arithmetic mean=200; variance = 400. Find the coefficient of variation?
8. What is splicing in the context of chain base index numbers?
9. What does the term "trend" signify in the context of a time series dataset?
10. Define stratified sampling. How does it improve the representativeness of a sample?
11. What does the pie chart represent?
12. What is mean by Gini Coefficient
13. Compare primary and secondary data collection methods.
14. What do you mean by Mode.
15. Draw a time series graph for following data and also draw the trend line.

Year	2005	2006	2007	2008	2009	2010	2011
Production	120	110	115	125	118	130	122

Section-B

(Each question carries 5 Marks.
Maximum Marks that can be scored in this section is 35)

16. Explain the importance of constructing an interview schedule and discuss the key considerations in forming frequency distributions during the organization phase of statistical investigation.
17. Explain the concept of the Lorenz curve and its significance in assessing income distribution within a population.

18. Explain the differences between mean deviation and standard deviation as measures of dispersion. Find Standard Deviation from the following data set (12,15,18,21,24).

19. From the following data, calculate Marshal Edgeworth's price index number

Items	2002		2022	
	Price	Quantity	Price	Quantity
A	4	20	6	10
B	3	15	5	20
C	2	25	3	15
D	5	10	4	40

20. Distinguish between absolute and relative measure of skewness.Find skewness based on the following data: (12,15,17,20,22,25,28,30,35,40).

21. Differentiate between fixed base and chain base index numbers. What are the advantages of using each method?

22. Explain the concept of scales of measurement in the context of economic data.

23. Compute trend values by finding three yearly moving averages for the following rime series.

Year	2000	2001	2002	2003	2004	2005	2006
Population (in millions)	412	438	446	454	470	483	490

Section-C
(Answer any two Questions and each carry 10 marks)

24. Examine various probability and non-probability sampling techniques. Compare their strengths and weaknesses, and explore real-world scenarios where these methods are commonly employed in research studies.

25. Calculate the Fisher's ideal index for the year 2022and show that it satisfies both time reversal, factor reversal and CT test?

Items	2010		2022	
	Price	Quantity	Price	Quantity
A	200	35	280	50
B	220	38	400	33
C	290	45	450	58
D	210	40	500	49
E	330	22	420	38
F	280	15	430	28

26. What are the key components of a time series, and how do they contribute to the overall pattern in the data?
27. Examine the importance of central tendency measures in summarizing data. Discuss the calculation methods and applications of mean, median, and mode in various real-world contexts. Find Mean, Median and Mode for the following data.

Class Interval	Frequency
10-20	6
20-30	9
30-40	14
40-50	18
50-60	12

34

2B3N24052 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BA Economics Degree Examination, November 2024

BEC3B04 – Indian Economic Development : National and regional – I

(2022 Admission onwards)

Time: 2 ½ hours Max. Marks: 80

SECTION A

Short Answer Questions

Students can attempt all questions – Each question carries a maximum of 2 marks. Maximum marks in this section is 25.

1. Do you know the meaning of deglobalization?
2. Write a short note on Mixed economy.
3. Define infant mortality rate.
4. What do you mean by decentralized planning?
5. Bring out the core objectives of National Development Council.
6. How can you explain the acronym GDP?
7. List out the key components of HDI.
8. Write a note on the book entitled "Poverty and Un-British Rule in India."
9. What is inequality?
10. Distinguish between emigration and immigration.
11. Write a note on the strategy of Inclusive Growth.
12. What is frictional unemployment?
13. Elucidate demographic dividend.
14. What do you mean by human poverty?
15. How can you explain the term privatization?

SECTION B

Short Essay / Paragraph Questions

Students can attempt all questions. Each question carries a maximum of 5 marks. Maximum marks in this section is 35.

16. Discuss the pillars of Kerala Model of Development.
17. Bring out the major changes happened to the India's land system during 1793-1850.
18. What are the major objectives of India's New Economic Policy of 1991?
19. Trace out the changes in the contribution of different sectors to the GDP of India since 1951.
20. "The recent policy initiatives of theUnion Government of India are effective to harness demographic dividend fully." Comment in your own words.
21. Make an elaborative note on Sen-Bhagawati Debate.
22. Write a note on Census 2011. Trace out the salient features of demography of India.
23. Examine the objectives and functions of NITI Aayog.

SECTION C

Long Essay Questions Answer any two questions.

Each question carries a maximum of 10 marks. Total Marks = 20

24. Discuss elaborately the various schemes introduced by the government of India to address the problems of unemployment and poverty.
25. In what ways the British administration resulted in India's economic underdevelopment. Bring out the leading factors responsible for famines in India during British rule.
26. What do you mean by economic planning? Discuss the major achievements and failures of five-year plans in India.
27. Explain the trends of the rate of unemployment and the incidence of poverty at the national level and the Kerala state level. What are the major causes of poverty and unemployment in India?

35

2B3N24053 (Pages : 1) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BA Economics Degree Examination, November 2024

BEC3C03 – Mathematical Methods for Economics – III

(2022 Admission onwards)

Time: 1 ½ hours Max. Marks: 40

Part A

(Very Short Answer Type Questions. Each question carries 2 marks)

1. Find the partial derivatives $\frac{\partial u}{\partial x}$ and $\frac{\partial u}{\partial y}$ where $u = 5x - 6y + 8$
2. Calculate marginal revenue from the total revenue function, $R = 40 + 15q - 12q^2$
3. What is total derivative.
4. What is cross elasticity of demand.
5. Find the points of inflection of the curve $Y = X^3 + 3X^2 + 3X + 2$
6. What are the mathematical conditions for optimization.
7. What is relative extrema of a function.

(Ceiling 10 marks)

Part B

(All Questions may be answered. Each question carries 5 marks)

8. What is Marginal cost at output q=4 for the average cost function ($\frac{20}{q} - 30 + 5q$) ?
9. Optimize the function $z = 48y - 3x^2 - 6xy - 2y^2 + 72x$
10. What is price elasticity of demand? Find out the price elasticity of demand for the demand function Q= 1200- $3P^2$ when P=10.
11. Find partial derivative of the following function; Q=$Q = AL^{\alpha}K^{\beta}$
12. Distinguish between increasing and decreasing function

(Ceiling 20 marks)

Part C

(Short Answer Questions. Answer any one of the following questions)

13. Maximize profit (π) for a firm, gives total revenue, $R = 4000Q - 33Q^2$ and Total cost, $C = 2Q^3 - 3Q^2 + 4000Q + 8000$where Q>0.
14. Optimise the function $z = 4x^2 + 3xy + 6y^2$ subject to the constraint $x + y = 42$, with Lagrange multipliers.

(1x10 = 10 marks)