1M3N23034 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester MCOM Degree Examination, November 2023

MCM3C11 – Financial Econometrics

(2022 Admission onwards)

Time: 3 hours Max. Weightage : 30

Section-A

Answer any four questions. Each question carries 2 weightages

1. What is financial econometrics? Discuss its subject matter?
2. What is Almon's Polynomial model? How it overcome the limitation of Koyck's model?
3. What is the random effect model of panel data regression? What are its advantage over Fixed effect model?
4. Consider the following Simultaneous equation model. Can we use OLS to estimate the β_0 *and* β_1 ? Explain your argument

$$C_t = \beta_0 + \beta_1 Y_t + U_t$$
$$Y_t = C_t + I_t$$

5. What is the primary objective of IV estimation when dealing with endogeneity. How does IV estimation differ from ordinary least squares (OLS) estimation?
6. Explain the difference between a stationary and a nonstationary stochastic process. Why is stationarity important in time series analysis?
7. Explain the concept of endogeneity in VAR models. Why is it important to account for endogeneity, and how does VAR handle it?

(4x2=8 Weights)

Section-B

Answer any four of the questions. Each question carries 3 Weightage

8. How Koyck transformed the following infinite lagged distributed model in to a finite autoregressive model?

$$Y_t = \alpha + \beta_0 X_t + \beta_1 X_{t-1} + \beta_2 X_{t-2} + \beta_3 X_{t-3} + \ldots\ldots + \beta_k X_{t-n} + U_t$$

9. You are conducting research on consumer preferences for a new product, aiming to determine the factors influencing the likelihood of purchase (1 = purchase, 0 = do not purchase). Explain how the probit model can be used to analyze this data, and discuss the assumptions associated with this model.
10. You have panel data on households' consumption patterns over several years. Explain how the Hausman test can be used to decide between fixed effects and random effects models.

11. Consider the following Simultaneous equation model. From the model, find out the endogenous, predetermined and exogenous variables and also derive the reduced form equation of the structural equation 1 and 2

$$M_t = \alpha_0 + \alpha_1 Y_t + \alpha_2 M_{t-1} + U_{1t}$$

$$Y_t = \beta_0 + \beta_1 M_t + \beta_2 I_t + U_{2t}$$

12. What is the Augmented Dickey-Fuller (ADF) test, and how does it extend the original Dickey-Fuller test? Under what circumstances is the ADF test more suitable?
13. You are studying the relationship between Stock Price (Y) and exchange rate (X) over time. Both series are found to be nonstationary. Describe the process of testing for cointegration between Y and X. If cointegration exists, explain how you would estimate an error correction model (ECM) and interpret its coefficients.
14. Compare and contrast autoregressive (AR), moving average (MA), and autoregressive integrated moving average (ARIMA) models in the context of time series analysis.

(4x3=12 Weights)

Section C

Answer any two questions. Each question carries 5 weightages.

15. Discuss the limitations of the Linear Probability Model (LPM) in modeling binary outcomes and how the Logit and Probit models address these limitations. Provide specific examples to illustrate each model's advantages and highlight the scenarios in which LPM, Logit, or Probit is most appropriate.
16. Using rank and order condition, evaluate the identification of the following equations

$$Y_1 = a_1 + a_2 Z_1 + a_3 Z_3 + u_1$$

$$Y_2 = b_1 + b_2 Y_3 + b_3 Z_1 + b_4 Z_2 + u_2$$

$$Y_3 = c_1 + c_2 Y_1 + c_3 Z_1 + c_4 Z_3 + u_3$$

17. Consider a financial time series dataset of daily stock prices. Describe how you would use the Box-Jenkins methodology to create a reliable forecasting model for stock returns. Discuss the process of identifying the appropriate ARIMA model, estimating its parameters, and conducting diagnostic tests. Also, explain how you would evaluate the model's forecasting accuracy.
18. You are working with a portfolio manager who wants to assess and manage the risk associated with a portfolio of stocks. Explain the concept of ARCH (Autoregressive Conditional Heteroskedasticity) and GARCH (Generalized Autoregressive Conditional Heteroskedasticity) models in the context of financial risk modeling. Describe how these models can be used to model volatility and estimate conditional variances.

(2 x 5 = 10 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester MCOM Degree Examination, November 2023

MCM3C12 – Income Tax Law, Practice and Tax Planning – I

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

Section A

Answer any four questions. Each question carries two weightage

1. Explain the relief of tax.
2. What is defective return of income?
3. What do you mean by TDS?
4. What do you mean by tax management?
5. Explain the following terms:

   (i)Assessee in Default (ii) Deemed Assessee
6. Write a note on incidence of tax.
7. Explain the term aggregation of income.

(4 x 2=8 weightage)

Section B

Answer any four questions. Each question carries three Weightage

8. Describe the different modes of recovery of tax.
9. Write a note on agricultural income.
10. Mr. Amithabh Bachan, an Indian citizen, went to America on 1st April 2022 for a film shooting.Due to ill health, he had to stay there just after shooting. He came back to India on 25th September, 2022.He had to go again on 8th December,2022 and returned India on 15th February.2023. Compute his residential status for the AY 2023-24.
11. From the following information compute the annual value of the house:

    Municipal value ₹ 80000

    Fair rent ₹ 120000

    Standard rent ₹100000

    The house was self-occupied for four months and then let-out @

    (a) ₹10000 p.m. (b) ₹ 15000 p.m.

    Municipal tax paid by the owner ₹ 10000.

12. Mr. Mukesh Sharma' s gross total income for the previous year ending on 31st March 2023 is ₹500000. He made the following donations by cheque:

(a) Maharastra chief minister's Earthquake Fund - ₹ 10000

(b) National Foundation for communal Harmony - ₹ 15000

(c) ₹10000 to an educational institution of National Eminence.

(d) ₹ 5000 to National Children's Fund.

(e) To municipal Corporation for promotion for family planning - ₹ 40000

(f) To minority Community Corporation (Notified) -₹ 25000

Compute his total income for the Assessment Year 2023-24

13. Profit and Loss account of M/S Pandey Traders shows a net profit of ₹ 100000 after debiting the amount withdrawn for personal expenses ₹ 10000, Life Insurance Premium ₹ 15000.Income tax ₹ 22000, expenses relating to income tax proceeding ₹ 15000 and municipal tax relating to self- occupied property ₹ 1400. Compute his taxable income under the head 'Profit from Business'

14. From the following particulars submitted by Shri Gaurav, compute his income from other sources for the AY 2023-24:

(a) He was a director in a company from which he received ₹ 13000 as Director's fee

(b) Interest received on deposits with a co-operative Bank ₹ 2000

(c) Dividend received from foreign company ₹ 6000

(d) Received winning from Lottery ₹ 28000

(e) Income from agriculture in England ₹ 78000

(f) Honorarium for delivering lectures in a registered society ₹ 1200

(4 x 3=12 weightage)

Section C

Answer any two questions. Each question carries five Weightage.

15. Explain the provisions regarding set-off and carry-forward of losses while computing the total income.

16. What is the need for tax planning? What are its limitations?

17. Mr.Rajiv is a sales officer in a company in Varanasi. He furnished the following particulars regarding his income for the Previous Year 2022-23:

a) Basic salary ₹ 25000 per month

b) Dearness allowance 50% of basic salary

c) Transport allowance ₹ 1800 per month

d) Children's education allowance for two children ₹ 350 per month per child. He spent ₹ 10000 towards the tuition fees for children.

e) The company had provided with a rent-free accommodation for which the company paid an annual rent of ₹ 70000.

f) The company has provided with the amenities of free lunch and free refreshment in office, the cost of which is ₹ 60 and ₹ 30 per day respectively for 300 days.

g) The company has given him laptop costing ₹ 60000 for office use and personal use.

h) The company contributed 15% of his salary and dearness allowance to his recognized provident fund. Interest credited to this fund @ 10% ₹ 60000 during the previous year.

i) The company transferred a car to him for ₹ 250000 on 1-8-2022.This car was purchased by the company for ₹ 500000 on 1-7-2020.

Compute his taxable income from salaries for the AY 2023-24.

18. The following are the particulars of Mr. X for the PY 2022-23. You are asked to compute his net tax liability:

	₹
Business Income	556900
Rent of Property	10000
Municipal tax on property paid	1000
Agricultural Income	10000
Long-term Capital Gain	15000
Winning from Lottery	50000
Life Insurance Premium	10000
Contribution to Public Provident Fund	15000
Casual Income from crossword puzzles	1200

(2 x 5=10 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester MCOM Degree Examination, November 2023

MCM3C13 – Research Methodology

(2022 Admission onwards)

Time: 3 hours Max. Weightage : 30

Section-A

Answer any four questions. Each question carries 2 weightage

1. What is Ex Post Facto Research?
2. What is snow ball sampling?
3. What is sample survey?
4. What are Cohort studies?
5. What is pilot study?
6. What is technical report?
7. What is MDS in research ?

(4x2 = 8 weightage)

Section B

Answer any four of the questions. Each question carries 3 weightage

8. What are the qualities of a good research?
9. What are the important features of a good sample design?
10. Explain the research process related with a case study?
11. What are the different types of questionnaire?
12. What are the Delphi techniques?
13. What are the common methods used in qualitative data analysis?
14. What are the steps required in planning report writing?

(4x3 = 12 weightage)

Section C

Answer any two questions. Each question carries 5 weightage.

15. Explain the use of Computer packages in research?
16. What is scaling? What are the different types of scale used?
17. There are several methods of collecting primary data. Explain?
18. What are the different Non – Probability sampling methods used for survey?

(2x5 = 10 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester MCOM Degree Examination, November 2023

MCM3EF01 – Investment Management

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

Section-A

Answer any four questions. Each question carries (2 weightage)

1. What are the five different aspects of investment?
2. What do you mean by market anomalies ?
3. How does economic growth related to stock price?
4. What are the assumptions of EMH ?
5. What is candlestick Chart?
6. Explain the advantages and risk associated with mutual funds.
7. State the modern approach in the construction of the portfolio.

(4x2=8 Weights)

Section-B

Answer any four of the questions. Each question carries (3 Weightage)

8. What are the different avenues of investment? Explain the need and benefit of investment.
9. Explain the Random Walk Theory of security analysis.
10. Discuss the efficient frontier and the role it plays in portfolio optimization. What are the factors influence an investor's choice along the efficient frontier?
11. A person owns a ₹1000 face value bond with five years to maturity. The bond makes annual interest payments of ₹. 80. The bond is currently priced at ₹.960. Given that the market interest rate is 10 per cent, should the investor hold or sell the bond.
12. The current dividend on an equity share of P. Ltd. is ₹ 3. P.Ltd is expected to enjoy above normal growth rate of 40% for five years. Thereafter, the growth rate will fall and stabilises at 12%. Equity investors require a return of 15% from P Ltd.'s stock. What is the intrinsic value of the equity share of P Ltd?
13. Suppose that over a year, the holding-period return on an investment fund was 10% and the return achievable from investing in government bonds ("risk-free investments) was 4%. Also assume that the standard deviation and beta of the investment fund's returns over this period were 5% and 1.8, respectively. Evaluate the performance of funds on the basis of Sharpe ratio.

14. Mr. X received a bonus of Rs 50,000 from his company. He wants to invest the money in two stocks. After a careful study of the stocks market he selected Rock and Reed corporations The expected return in Rock is 14% and standard deviation of return is 22%. The return from the Reed Corp is slightly higher being 16% and at the same time the standard deviation of return is also higher being 25%. The Correlation coefficient between them is 0.5. Help him to build a minimum risk portfolio.

(4x3=12 Weights)

Section C

Answer any two questions. Each question carries (5 weightage).

15. Explain the role of a financial advisor in investment management. Discuss the responsibilities, ethical considerations, and potential conflicts of interest that advisors may face when managing client portfolios.

16 Explain the methods and metrics used to evaluate the performance of investment portfolios. How can investors effectively benchmark their returns against relevant market indices?

17. What do you mean by technical analysis? Discuss briefly the tools used for technical analysis.

18. Analysts expected return on two stocks for two particular market returns is given below:

Market Return	Aggressive Stock	Defensive stock
5%	2%	3.5%
20%	32%	14%

(a) What are the betas of the two stocks?

(b) What is the expected rate of return on each stock if the market return is equally likely to be 5% or 20%?

(c) If the T-bill rate is 8% and the market return is equally likely to be 5% or 20%, draw the SML for this economy.

(d) Plot the two securities on the SML graph. What are the alphas of each?

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester MCOM Degree Examination, November 2023

MCM3EF02 – Financial Markets & Institutions

(2022 Admission onwards)

Time: 3 hours

Max. Weightage : 30

Section A

Answer any four questions. Each question carries two weightage

1. What is put option?
2. What is the difference between ADR and GDR?
3. Explain FPI.
4. What is bitcoin?
5. Explain the book-building in primary market.
6. What do you mean by stock market index?
7. What is IPO?

(4 x 2=8 weightage)

Section B

Answer any four questions. Each question carries three Weightage

8. Discuss the different types of debt market instruments.
9. Explain the role of SIDBI in MSME sector.
10. Write a note on PFRDA.
11. Discuss the major commodity exchanges in India.
12. What are the functions of financial market?
13. What are the objectives of AMFI?
14. Discuss the benefits of FDI to host country.

(4 x 3=12 weightage)

Section C

Answer any two questions. Each question carries five Weightage.

15. Discuss the role of SEBI in Indian capital market.
16. What are the different classification of mutual fund?
17. Explain the different types of money market instruments.
18. Explain in detail the trends in foreign capital inflows to India.

(2 x 5=10 weightage)