

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET A

**SCHOOL OF MANAGEMENT
END TERM EXAMINATION - JAN 2024**

Semester : Semester V -2021

Course Code : COM3028

Course Name : Crypto Currency and Its Uses

Program : BBA

Date : 09-JAN-2024

Time : 1:00 PM - 4:00 PM

Max Marks : 100

Weightage : 50%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

5 X 2M = 10M

1. What is the function of cryptography in cryptocurrencies?
(CO1) [Knowledge]
2. How does Ripple's consensus algorithm differ from Bitcoin's proof-of-work?
(CO2) [Knowledge]
3. Define the components of the CAPM equation and their significance in calculating expected returns.
(CO3) [Knowledge]
4. Define fundamental analysis in the context of cryptocurrency.
(CO4) [Knowledge]
5. List out two emerging trends in the cryptocurrency market.
(CO5) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

5 X 10M = 50M

6. Over the years, cryptocurrencies have evolved from experimental concepts to a global financial phenomenon. The market witnessed significant growth, the emergence of alternative cryptocurrencies (altcoins), initial coin offerings (ICOs), and the development of smart contract platforms like Ethereum. The sector faced regulatory and scaling challenges and experienced remarkable developments, such as the rise of DeFi (Decentralized Finance) and NFTs (Non-Fungible Tokens). Cryptocurrencies have gained institutional recognition, and global regulatory frameworks continue to take shape, marking an ongoing transformative journey in the world of finance and technology. Explain the concept cryptocurrencies highlighting their unique features.

(CO1) [Comprehension]

7. Ethereum holds a pivotal role in the cryptocurrency ecosystem as a versatile and programmable blockchain platform. It introduced smart contracts, self-executing agreements with applications across finance, gaming, and more, transforming the way transactions and agreements are executed in a decentralized manner. Explain the concept of Ethereum in the cryptocurrency ecosystem.
(CO2) [Comprehension]
8. Calculate expected return from the following using Capital Asset Pricing Model (CAPM) model

Year	Etherum.	Market Portfolio Returns
1	20	14
2	24	18
3	10	9
4	15	14
5	-10	-8
6	12	10
7	18	16
8	28	30
9	33	35
10	40	42

let's assume that the investor is looking to buy Binance Inc.'s bitcoins that has a beta (β), If the market is anticipating growing 12.0% this year, Assuming the risk-free rate is 3.0%.

(CO3) [Comprehension]

9. With fundamental analysis you can decide if an asset is overpriced or underpriced based on how you see its intrinsic value — as in, will it be more useful in the future. Take, for instance, Ethereum. Most decentralized-finance (or DeFi) applications run on its blockchain. If you assume DeFi will grow, you might guess that Ethereum's value will increase in the future. Assume that you are going to invest in cryptocurrencies, explain the core principles, tools, and approaches used by you as investor in fundamental analysis.
(CO4) [Comprehension]

10. The cryptocurrency world is no stranger to turbulence, and the past year has been nothing short of a rollercoaster ride. The crypto market has experienced its fair share of challenges, from fraudulent schemes to plunging prices. Doubts have been cast upon its resilience and long-term viability. Despite the chaos, one undeniable fact remains: 320 million users worldwide are drawn to the cryptocurrency market. With reference to the above context, explain recent and emerging trends in the cryptocurrency market and their implications for the future of finance.
(CO5) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

2 X 20M = 40M

11. From the following information of two crypto currencies like XRP and Bitcoin of 2023. Assuming investors has Investment 1 and Investment 2 which have investment amount ₹ 200000, ₹300000 respectively.

Month	Return XRP	Return On Bitcoin	Probability
June	15	25	0.5
July	22	36	0.2
August	28	29	0.1
September	32	32	0.2

Calculate the expected return and standard deviation of the portfolio using Markowitz model.

(CO3) [Application]

12. Balaji S. Srinivasan, an Indian-American entrepreneur and investor born on May 24, 1980, has left an indelible mark on the tech landscape. His academic journey, including attaining BS, MS, and PhD degrees in Electrical Engineering from Stanford University alongside an MS in Chemical Engineering, laid the foundation for his exceptional career. Notably, he co-founded Counsyl in 2007, specializing in genetic testing for Mendelian diseases, eventually leading to its acquisition by Myriad Genetics for \$375 million in 2018. His role at Andreessen Horowitz as a general partner and subsequent involvement in ventures like 21e6, later rebranded to Earn.com and acquired by Coinbase, further underscored his influence in the cryptocurrency realm.

During his tenure as Coinbase's first Chief Technology Officer, Srinivasan spearheaded pivotal initiatives, contributing to the integration of Earn.com into Coinbase and orchestrating deals worth billions for Coinbase Custody and Coinbase Earn. Notably, his instrumental role in launching the USDC stablecoin, now valued at over \$33.4 billion, showcased his technical prowess and strategic acumen.

Beyond his entrepreneurial achievements, Srinivasan authored "The Network State: How To Start a New Country" in July 2022, unveiling the concept of a "network state" where digital communities crowdfund resources to establish autonomous entities. Despite accolades such as being named an MIT Technology Review "Innovator Under 35" in 2013 and Fortune ranking him 26th in "The Ledger 40 Under 40" list in 2018, Srinivasan has faced criticism, notably for controversial remarks and actions, such as suggesting doxing reporters and engaging in contentious social media interactions. However, his philanthropic endeavors, including a \$50,000 cryptocurrency donation for Indian COVID-19 relief and academic contributions, showcase a multifaceted persona navigating the complexities of technology, entrepreneurship, and societal engagement.

Questions

1. Discuss Balaji Srinivasan's entrepreneurial ventures, including Counsyl, 21e6/21 Inc, and Earn.com/Coinbase Earn. What were the key milestones, successes, and failures in these endeavors?

2. What factors led to the failure of 21e6/21 Inc as a Bitcoin mining business, and how did the pivot to Earn.com occur? Analyze the impact of this transformation on the company's trajectory.

3. Explain Balaji Srinivasan's role as the first Chief Technology Officer (CTO) at Coinbase. What major initiatives and contributions did he spearhead during his tenure?

4. Evaluate Srinivasan's impact on Coinbase's expansion and strategic decisions, including the integration of Earn.com, sourcing deals for Coinbase Custody and Coinbase Earn, and the launch of the USDC stablecoin.

(CO5) [Application]