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Reg. No. | | | | | | | | |

IV Semester M.B.A. (Day and Evening) Degree Examination January- 2025

MANAGEMENT

Emerging Technologies and Future Skills for Business Leaders

(CBCS Scheme 2019 Onwards)

Paper : 4.7.3

Time : 3 Hours **Maximum Marks : 70**

SECTION - A

Answer any Five questions from the following. Each question carries 5 marks. **(5×5=25)**

1. Define Artificial Intelligence and differentiate it from Machine Learning.
2. What are the key components of a computing cloud?
3. Define block chain and explain its basic components
4. Describe the process and advantages of 3D printing.
5. Define robot accuracy and explain its significance in industrial applications
6. What is the importance of data privacy in cybersecurity?
7. Explain the role of IoT in modern data analysis.

SECTION-B

Answer any Three questions from the following. Each question carries 10 marks. **(3×10=30)**

8. Compare and contrast the applications of AI in finance and healthcare.
9. Evaluate the benefits and challenges of using private and hybrid clouds for data storage.
10. Assess the ethical and security implications of cryptocurrencies in traditional finance.
11. Analyze the impact of 3D printing on traditional manufacturing processes using Robotics.

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SECTION - C

(1×15=15)

12. Case Study (Compulsory) :

FinSecure Inc., a mid-sized financial services company, was facing increasing pressure to adopt modern technology solutions to stay competitive and secure in a rapidly evolving digital landscape. Recognizing the need for innovation, FinSecure decided to invest in artificial intelligence (AI) and cybersecurity measures to enhance customer experience and protect sensitive financial data.

The company began by implementing AI-powered tools for data analysis and customer service. These tools helped FinSecure analyze large volumes of transactional data, identifying spending patterns, predicting customer needs, and offering personalized product recommendations. Through machine learning, they optimized fraud detection systems, enabling real-time alerts for suspicious transactions and significantly reducing fraudulent activities.

As they scaled their AI capabilities, cybersecurity became a critical focus. With financial data being a high-value target for cybercriminals, FinSecure adopted comprehensive cybersecurity protocols. They implemented penetration testing and vulnerability assessments to identify system weaknesses. In line with data privacy regulations, FinSecure also developed a robust data protection framework, integrating privacy policies and encryption standards to safeguard customer information. Additionally, the company invested in blockchain technology to secure transaction records, reducing reliance on third-party intermediaries and minimizing risks associated with data tampering.

Despite the improvements, FinSecure faced challenges. The integration of AI and cybersecurity required significant investment and skilled talent, which strained their resources. Furthermore, as they relied more on automation, there were concerns over job displacement, and managing regulatory compliance across various jurisdictions remained complex.

Discussion questions:

a) What additional strategies could FinSecure use to address cybersecurity challenges while expanding its AI capabilities?

b) How can FinSecure balance the need for automation with potential concerns about job displacement in their workforce?

c) In what ways could blockchain technology further enhance data security and transparency in FinSecure's operations.