Exam Code: 114006   Paper Code: 6223

Programme : **Bachelor of Vocation (Artificial Intelligence and Data Science) Semester-VI**
Course Code: BVIL-6111
Course Title: Introduction to Blockchain Technology

Time Allowed: 3 Hours   Max Marks: 60

Note: **Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.**

Section – A

1(a) What is CAP theorem? How is it relevant in Blockchain?   6
  (b) Explain benefits and limitation of Blockchain.   6
2. What is Decentralization in Blockchain? How does it work?   12

Section - B

3. (a) Explain characteristics of cryptographic hash functions?   6
   (b)What are Hash pointers?   6

4. Explain how a bitcoin transaction work. Also explain the terms public key, private key, hash functions and digital signatures.   12

Section - C

5. Explain how a block is made and validated on Bitcoin Blockchain. Who can validate Block and what incentive is given for this?   12
6. What are Bitcoin scripts? Explain their applications.   12

Section-D

7. What is a mining pool? What is the impact of Bitcoin mining on environment?   12
8. What are some services offered by Bitcoin exchanges? Also give some popular examples.   12

Exam Code: 114006   Paper Code: 6224

Bachelor of Vocation (Artificial Intelligence and Data Science) Semester- VI
Course Title: Deep Learning
Course Code: BVIL-6112

Time Allowed: 3 Hours   Max Marks: 60

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries equal marks. (12)

Section – A

1. What are the key components of training a deep learning model? What challenges may arise during training process.
2. Explain the concept of Neural Networks. How it is related to Deep Learning?

Section – B

3. What are some common regularisation techniques used in Deep Learning? How do they help in preventing over fitting in feedforward Neural Network?

4. Compare and contrast the architecture and applications of Convolutional Neural Networks and recurrent Neural Networks.

Section-C

5. Discuss the purpose and benefits of pooling layers in CNN including different types of pooling techniques.
6. Explain variants of basic convolutional functions used in CNN.

Section – D

7. Describe the architecture of RNN and its ability to handle sequential data.

8. Explain the concept of unfolding computational graphs in the context of RNN.

Exam Code: 114006   Paper Code: 6225

Programme : **Bachelor of Vocation (Artificial Intelligence and Data Science)**
Semester- **VI**
Course Title: **Business Intelligence**
Course Code : **BVIL-6113**

Time Allowed: **3 hours**   Maximum Marks: **60**

Serial no.	Instructions to the candidates	Marks
	Candidates are required to attempt five questions in all, Selecting at least one question from each section. The fifth question may be attempted from any section. Each question is of 12 Marks.	
	SECTION-A	
Q 1)	Describe the basic structure of a Decision Support System and its components?	12 Marks
Q 2)	What are the benefits and challenges for Successful Business Intelligence?	12 Marks
	SECTION-B	
Q 3)	Explain the significance of each phase in the decision-making process: Intelligence Phase, Design Phase, Choice Phase, and Implementation Phase. Provide an example to illustrate how each phase contributes to effective decision-making in real-life situations.	12 Marks
Q 4)	How model selection helps in Computerized Decision Support with real-life situations?	12 Marks
	SECTION-C	
Q 5)	Explain the following in the context of management support systems:	
a)	What-if analysis	6 Marks
b)	Sensitivity analysis	6 Marks
Q 6)	What motivates a manager to utilize goal-seeking techniques along with examples?	12 Marks
	SECTION-D	
Q 7)	What are the major categories of knowledge management tools?	12 Marks
Q 8)	What are the key activities involved in knowledge management and outline how they contribute to organizational success?	12 Marks