ARKA JAIN University
Jharkhand

END TERM EXAMINATION
School of Engineering & IT

Branch	Computer Science Engineering	Program	Diploma
		Semester	5th
Subject Name	Internet of Things	Year	2022/ Odd

- Start writing from 2nd page onwards; don't Write on the 1st Page Backside
- Answer all Questions of Section A (Compulsory)
- Answer Any Four out of Six of Section B
- Answer Any Three out of Five of Section C
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will comes under Unfair Means and will Result in the Cancellation of the Papers.

Time: 3 Hour
Max. Marks : 70

Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 02 Marks from Q1-i to Q1-x) – 20 Marks
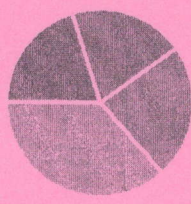
Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	What is Internet?	2	CO1	K1	PO2
ii	What is the role of sensor in IoT?	2	CO2	K2	PO1
iii	What is Arduino?	2	CO2	K1	PO1
iv	Explain any 2 Raspberry Pi Commands.	2	CO3	K2	PO2
v	Compare Intranet and Extranet.	2	CO1	K2	PO2
vi	Convert $(1010110)_2$ to $(\ )_{10}$	2	CO1	K5	PO2
vii	Differentiate between Sensor and Transducer.	2	CO2	K2	PO1
viii	Explain any two advantages of Raspberry Pi over Arduino.	2	CO3	K1	PO2
ix	What is a Logic Gate? Give any two types.	2	CO1	K2	PO2
x	Show the truth table for the given expression: $Z = (A+B)+ !(C.D)$	2	CO1	K4	PO2

CO- Course Outcomes,   **KL**- Knowledge Level,   **PO** – Program Outcome

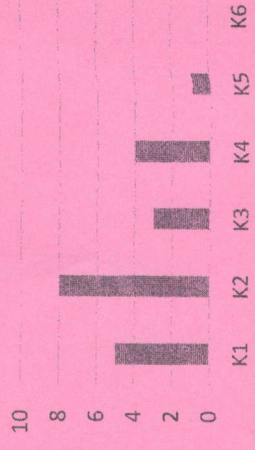|		
	CO1	Upon completion of this course, students will be able to understand the different conventional and unconventional manufacturing methods employed for making different products.
	CO2	Upon completion of this course, the students will have an overview of the mechanical behavior and application of tools used in machining purpose.
Course Outcomes	CO3	Upon completion of this course, the students will able to examine the different Techniques involved in traditional machining process.
	CO4	Students will able to understand the manufacturing process of complex shape products.
	CO5	Upon completion of this course, students will analyze the basic components of Lathe machine, Milling Machine, Drilling machine, Grinding Machine and different tools handled.

GRAFICAL REPRESENTATION

Bloom level wise distribution

Cource outcome wise distribution

K1 K2 K3 K4 K5 K6

■ CO1 ■ CO2 ■ CO3 ■ CO4 ■ CO5 ■ CO6

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Compare data and information.	5	CO3	K2	PO2
3	Explain general commands associated with Raspberry Pi.	5	CO3	K4	PO2
4	Draw the block diagram of IoT.	5	CO2	K3	PO1
5	Justify the statement "NAND and NOR are universal gates".	5	CO1	K3	PO2
6	Write short note on Wireless Sensor Network.	5	CO4	K2	PO3
7	Explain the working of an IoT device.	5	CO3	K4	PO2

Section C (Answer any THREE out of FIVE) – 30 Marks-
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Explain the working of both sensor and actuator with examples related to IoT.	10	CO2	K1	PO1
9	Compare LAN, MAN and WAN. Also mention the applications of Zigbee protocol.	10	CO4	K1	PO3
10	Why do we need a protocol? Describe the IoT protocol with each layer.	10	CO4	K2	PO3
11	Differentiate between IoT and M2M. Explain either OSI model TCP/IP model.	10	CO4	K3	PO3
12	What is IP? Compare IP4 and IPv6. Also mention the advantages of IPv6 over IEEE 802.15.4 networks.	10	CO4	K4	PO3

55

ARKA JAIN University
Jharkhand

END TERM EXAMINATION
School of Engineering & IT

Program	Diploma
Semester	5th
Year	2022/ Odd

Branch	Computer Science Engineering
Subject Name	Information Security

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
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- Answer Any Three out of Five of Section C
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Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 02 Marks from Q1-i to Q1-x) – 20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	How the file systems can be protected?	2	CO1	K3	PO1
ii	What is the use of system log?	2	CO2	K3	PO3
iii	Define Hub and Router.	2	CO2	K1	PO3
iv	Define the term Authentication.	2	CO1	K1	PO1
v	Define the term cryptography.	2	CO1	K1	PO2
vi	What is use of User datagram protocol?	2	CO1	K3	PO1
vii	Write three Well known ports of User datagram protocol.	2	CO1	K1	PO3
viii	What is the use of Private key and Public key.	2	CO1	K3	PO4
ix	Why we require confidentiality of information?	2	CO1	K4	PO2
x	Define information security goals.	2	CO1	K1	PO2

CO- Course Outcomes,   KL- Knowledge Level,   PO – Program Outcome

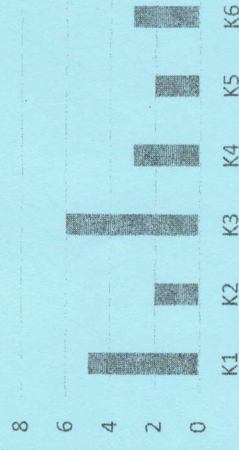| Course Outcomes		
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GRAFICAL REPRESENTATION

Bloom level wise distribution

Cource outcome wise distribution

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	What are Information Security Goals? Explain three aspects of information Security goal.	5	CO1	K2	PO1
3	Explain the use of packet filter firewall.	5	CO2	K3	PO3
4	Differentiate term mono alphabetic and poly alphabetic Cipher with example.	5	CO1	K5	PO1
5	Explain Substitution Cipher and Transposition Cipher.	5	CO1	K6	PO4
6	Write the purpose of Intellectual Property Rights.	5	CO2	K4	PO3
7	Explain Intra and Interdomain Routing protocol.	5	CO2	K4	PO3

Section C (Answer any THREE out of FIVE) – 30 Marks-
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Define public key cryptography, private key cryptography with proper diagram. Explain the differences between them.	10	CO1	K6	PO3
9	Explain how ISO 27001 benefits the organization.	10	CO1	K6	PO1
10	Write a short note on Disaster Recovery.	10	CO2	K3	PO2
11	Explain Data Encryption Standard with block diagram.	10	CO2	K5	PO4
12	Explain Authentication Header (AH) protocol of transport mode.	10	CO2	K2	PO2

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END TERM EXAMINATION
School of Engineering & IT

	Program	Diploma
Branch	Computer Science Engineering	
	Semester	5th
Subject Name	Web Designing & Multimedia Technology	Year	2022/Odd

Time: 3 Hour
Max. Marks : 70

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- Answer all Questions of Section A (Compulsory)
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- Answer Any Three out of Five of Section C
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Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 02 Marks from Q1-i to Q1-x) – 20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	List the types of Style sheets	2	CO5	K1	PO2
ii	Define image tag with an example.	2	CO2	K1	PO3
iii	List out some CSS selector	2	CO5	K1	PO1
iv	Define List Tag with an example	2	CO2	K1	PO3
v	Why are attributes used in XML.	2	CO3	K2	PO4
vi	Define DTD.	2	CO3	K1	PO3
vii	What is the use of AUDIO and VIDEO elements?	2	CO3	K5	PO1
viii	List and explain any two html elements?	2	CO4	K3	PO4
ix	List the different basic protocols used in internet?	2	CO2	K3	PO2
x	What is Cache?	2	CO2	K1	PO2

CO- Course Outcomes,   **KL-** Knowledge Level,   **PO** – Program Outcome
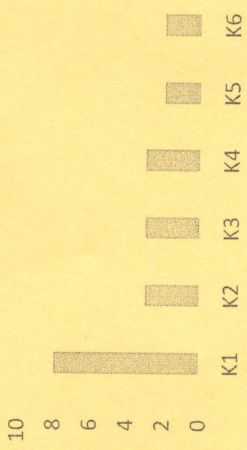
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GRAFICAL REPRESENTATION

Bloom level wise distribution

Cource outcome wise distribution

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	What is the need of scripting languages in web Technologies	5	CO6	K4	PO5
3	Explain about the purpose of DTD	5	CO2	K2	PO2
4	Distinguish HTML and XHTML.	5	CO2	K3	PO3
5	Explain radio buttons with example	5	CO4	K4	PO2
6	Explain reset & submit buttons with example	5	CO4	K5	PO2
7	Explain check box with example	5	CO4	K6	PO2

Section C (Answer any THREE out of FIVE) – 30 Marks-
(Each question Carry 10 Marks)

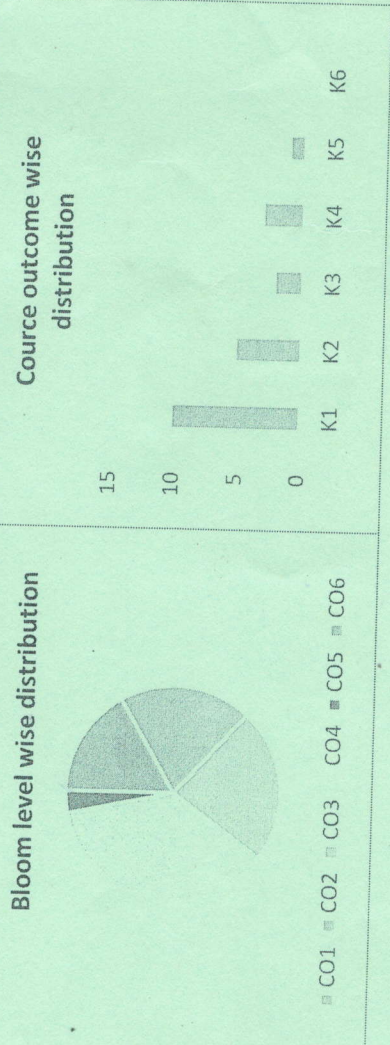| Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Define Frameset, Frame Tag. Divide the web page into four equal parts each individual part displays different web page	10	CO3	K1	PO1
9	Define Table tag and their attributes with an example.	10	CO1	K1	PO1
10	Explain about Cascading Style Sheets with an example.	10	CO5	K2	PO2
11	Explain the procedure for validating the XML Documents	10	CO4	K4	PO2
12	Explain how to insert CSS in an HTML Document.	10	CO5	K6	PO2

9/12/2022
50

END TERM EXAMINATION
School of Engineering & IT

Branch	Computer Science Engineering		
		Program	Diploma
Subject Name	Data Science: Data warehousing & Data Mining	Semester	5th
		Year	2022/ Odd

- Start writing from 2nd page onwards; **don't Write on the 1st Page Backside**
- Answer all Questions of Section A (Compulsory)
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Section A (Each question Carry 02 Marks from Q1-i to Q1-x) – 20 Marks

Q. N 1	QUESTIONS	Marks	COs	KL	PO
i	What is Data Science process? Explain.	2	CO3	K2	PO2
ii	Define deployment.	2	CO2	K1	PO2
iii	Define data preprocessing.	2	CO1	K4	PO1
iv	Explain Tuples with example.	2	CO1	K1	PO2
v	What do you understand by data visualisation?	2	CO1	K4	PO1
vi	Explain Data cleaning.	2	CO4	K1	PO2
vii	Explain data integration process.	2	CO3	K2	PO2
viii	Name the types of Data sets.	2	CO4	K1	PO2
ix	Give three most widely used Data mining software.	2	CO3	K2	PO2
x	Give one use of prediction in any one of example.	2	CO1	K4	PO1

CO- Course Outcomes,   KL- Knowledge Level,   PO – Program Outcome

Course Outcomes	CO1	Upon completion of this course, students will be able to understand the different conventional and unconventional manufacturing methods employed for making different products.
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GRAFICAL REPRESENTATION

Bloom level wise distribution

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■ CO1 ■ CO2 ■ CO3 CO4 ■ CO5 ■ CO6

K1 K2 K3 K4 K5 K6

Section B (Answer any FOUR out of SIX) – 20 Marks
(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain pdf and cdf in detail.	5	CO3	K3	PO2
3	Explain rescaling of data with an example.	5	CO3	K1	PO4
4	Discuss the role of backpropagation algorithm in training neural network.	5	CO2	K2	PO2
5	Discuss user-based collaborative filtering in detail.	5	CO3	K1	PO2
6	Discuss decision tree in detail.	5	CO2	K1	PO2
7	Explain entropy and entropy of a partition in detail.	5	CO2	K2	PO2

Section C (Answer any THREE out of FIVE) – 30 Marks-
(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Describe how data can be manipulated by considering an example.	10	CO3	K1	PO4
9	Describe Recurrent Neural Network in detail.	10	CO3	K3	PO1
10	Explain layer abstraction in deep learning.	10	CO5	K1	PO1
11	Describe directed graphs and page rank in detail.	10	CO1	K5	PO2
12	Describe Bayes's theorem in details with an example.	10	CO2	K1	PO2