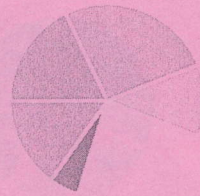


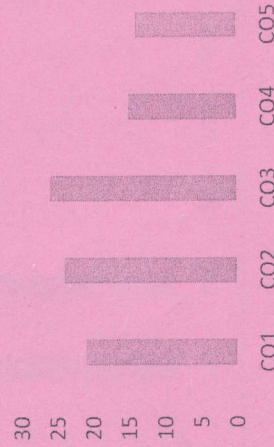
CO1	Students will have good understanding of various aspect of IoT.
CO2	Students will understand and know some tools and have basic implementation skills.
CO3	Students will be able to understand design methodology and hardware platforms involved in IoT.
CO4	Students will be able to analyse and organize the data.
CO5	Students will be able to compare IOT Applications in Industrial & real world.

GRAPHICAL REPRESENTATION

Bloom's Level wise Marks Distribution



Course Outcome Wise Marks Distribution



Branch	Computer Science & Engineering	Program	Diploma
Subject Name	Internet of Things	Semester	V
		Year	Odd Nov/Dec 2023
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> Start writing from 2nd page onwards; <u>don't Write on the 1st Page Backside</u> 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 <u>Mobile Phones</u> or any kind of <u>Written Material, Arguments with the Invigilator or Discussing with Co-Student</u> will comes under <u>Unfair Means</u> and will <u>Result</u> in the <u>Cancellation of the Papers.</u> 		
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	QUESTIONS	Marks	COs	KL	PO
1					
i	List the applications of IoT.	2	CO1	K1	PO1
ii	Classify the different types of Sensors.	2	CO1	K3	PO1
iii	Express the IEEE 802.15.4 MAC Format.	2	CO3	K2	PO4
iv	Define actuators and give examples.	2	CO2	K1	PO4
v	Compare ZigBee and ZigBee IP.	2	CO3	K4	PO2
vi	Explain consumer IoT.	2	CO5	K2	PO1
vii	Define SCADA.	2	CO5	K1	PO1
viii	Name two IoT application layer protocol.	2	CO1	K1	PO1
ix	Describe UDP protocol.	2	CO2	K2	PO4
x	Point out the challenges faced by Internet of Things.	2	CO3	K4	PO2

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

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain Advantages and disadvantages of IOT	5	CO2	K2	PO1
3	List the "things" in IoT and explain briefly.	5	CO1	K4	PO2
4	Generalize the purpose of Amazon Web service for IoT.	5	CO4	K6	PO5
5	Analyze in detail LoRa WAN technology.	5	CO3	K4	PO5
6	Discuss sensors in detail. Explain different types of sensors.	5	CO2	K2	PO2
7	Summarize on Arduino.	5	CO3	K5	PO5

Section C (Answer any THREE out of FIVE) – 30 Marks-

(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Define IOT. Explain Characteristics and component of IOT.	10	CO1	K1	PO1
9	Generalize the various enabling technologies of IoT.	10	CO3	K6	PO5
10	Compare in detail - Structured vs Unstructured Data.	10	CO4	K3	PO1
11	Describe the seven layers of IoT Reference model designed by IoTWF	10	CO5	K2	PO4
12	Analyze in detail the IoT protocol MQTT and its characteristics with suitable illustration	10	CO2	K4	PO2

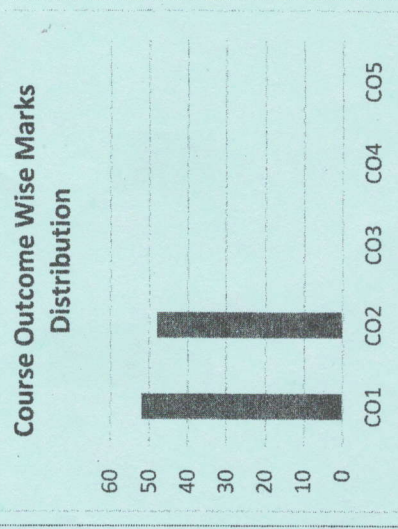
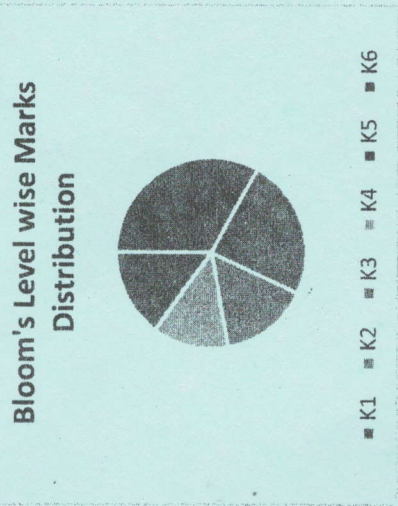


Branch	Computer Science & Engineering	Program	Diploma
Subject Name	Introduction to E-Governance CSE	Semester	V
		Year	Odd Nov/Dec 2023
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> Start writing from 2nd page onwards; don't write on the 1st Page Backside Answer all Questions of Section A (Compulsory) Answer Any Four out of Six of Section B Answer Any Three out of Five of Section C Possession of <u>Mobile Phones</u> or any kind of <u>Written Material, Arguments</u> with the <u>Invigilator</u> or <u>Discussing with Co-Student</u> will come under <u>Unfair Means</u> and will <u>Result in the Cancellation of the Papers.</u> 		
Knowledge Level (KL)	K1 : Remembering K2 : Understanding	K3 : Applying K4 : Analysing	K5 : Evaluating K6 : Creating

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

CO1 Exposure to introductory ideas and practices followed in a selected number of e- Governance initiatives in India.
CO2 Understand and appreciate the essence of e-Governance.

GRAFICAL REPRESENTATION



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

Q. N1	QUESTIONS	Marks	COs	KL	PO
i	What is G2G?	2	CO2	K1	PO1
ii	Give 2 objectives of E-governance *	2	CO2	K1	PO2
iii	What is E-Health?	2	CO1	K2	PO2
iv	Give 2 examples of E-Governance	2	CO2	K4	PO2
v	Explain 2 needs of NEGP	2	CO1	K2	PO2
vi	What is NEGP?	2	CO1	K1	PO2
vii	What are the different E-Seva	2	CO2	K4	PO1
viii	What is cyber law?	2	CO2	K1	PO1
ix	Explain the opportunities of E-governance	2	CO2	K4	PO1
x	Explain the challenges of E-governance	2	CO2	K4	PO1

Section B (Answer any FOUR out of SIX) - 20 Marks

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain SMART Governance.	5	CO2	K1	PO1
3	Explain e-governance life cycle	5	CO2	K2	PO1
4	What do you understand by Critical Success Factor?	5	CO1	K4	PO2
5	What is Public Private Re-engineering?	5	CO1	K6	PO2
6	How can language barrier limit the use of E-governance?	5	CO1	K3	PO2
7	Differentiate between urban & Rural E-Governance.	5	CO2	K2	PO1

Section C (Answer any THREE out of FIVE) - 30 Marks-

(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	How cyber-crime can be a threat to E-Governance.	10	CO1	K6	PO2
9	Explain various initiatives taken under Digital India.	10	CO1	K1	PO2
10	Explain different models of E-governance.	10	CO1	K3	PO2
11	Explain the Central government initiatives as mission mode projects (MMP)	10	CO1	K2	PO2
12	Explain Government initiatives for m-governance	10	CO1	K1	PO2

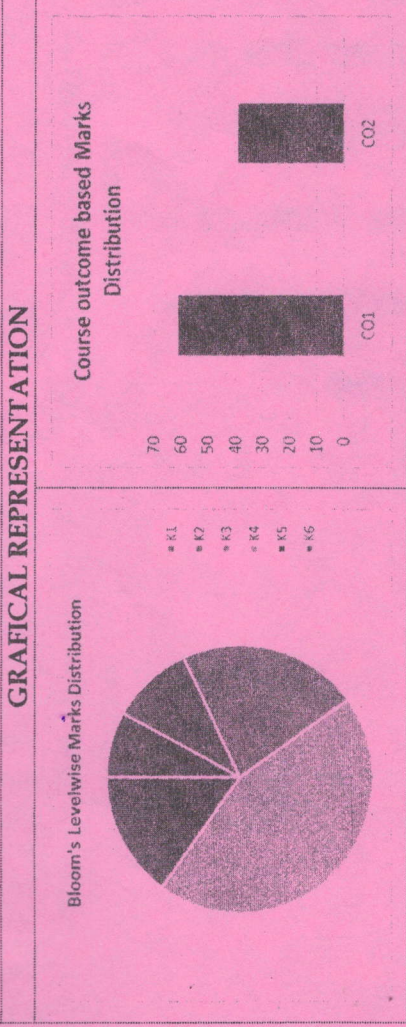


ARKAJAIN
University
Jharkhand

END TERM EXAMINATION
School of Engineering & IT

Branch	Computer Science & Engineering		Program	Diploma
Subject Name	Information Security		Semester	V
			Year	Odd Nov/Dec 2023
Time: 3 Hour Max. Marks : 70	<ul style="list-style-type: none"> 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 <u>Unfair Means and will Result in the Cancellation of the Papers.</u> 			
Knowledge Level (KL)	K1 : Remembering		K3 : Applying	
	K2 : Understanding		K4 : Analysing	
			K5 : Evaluating	
			K6 : Creating	

CO1	Understanding of security needs and issues of IT infrastructure.
CO2	Have basic skills on security audit of networks, operating systems and application software.



Section A (Each question Carry 02 Marks from Q1-i to Q1-x) - 20 Marks					
Q. N1	QUESTIONS	Marks	COs	KL	PO
i	Define cryptography.	2	CO1	K1	PO1
ii	What are the various goals of Information Security?	2	CO1	K2	PO1
iii	What is Firewall?	2	CO1	K1	PO1
iv	Write down security weaknesses in TCP and UDP protocols?	2	CO2	K2	PO2
v	Define PAIN points of Information Security?	2	CO1	K1	PO1
vi	What is IDS?	2	CO1	K2	PO1
vii	What is the difference between DRP and BCP?	2	CO2	K3	PO2
viii	Define PKI.	2	CO1	K1	PO1
ix	What is ingress filtering?	2	CO1	K2	PO1
x	What is the work of VPN concentrator?	2	CO1	K2	PO1

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

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain various security solutions to mitigate the security risks of the following networking protocols: a) IPsec b) HTTPS	5	CO2	K3	PO2
3	Explain IDS.	5	CO2	K4	PO2
4	Explain about PKI in detail.	5	CO1	K4	PO1
5	Describe ISO 27001.	5	CO2	K6	PO2
6	Write short notes on Hub, Switch, and Router & security weaknesses.	5	CO1	K3	PO1
7	Explain the technical details of firewall.	5	CO1	K4	PO1

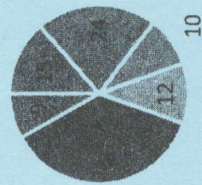
Section C (Answer any THREE out of FIVE) – 30 Marks-

(Each question Carry 10 Marks)

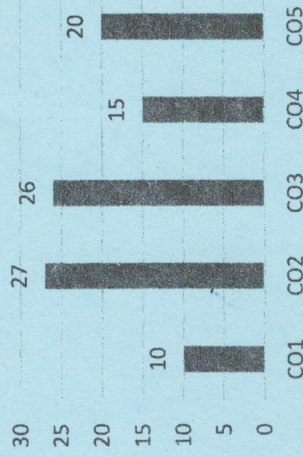
Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Explain the security considerations taken into consideration while developing software.	10	CO1	K6	PO1
9	Explain India IT Act.	10	CO2	K4	PO2
10	Explain IDS and IPS.	10	CO2	K4	PO2
11	Describe security weaknesses in IP, TCP, UDP, HTTP, and SMTP.	10	CO1	K3	PO1
12	Explain content screening gateways.	10	CO1	K4	PO1

CO- Course Outcomes,	KL- Knowledge Level,	PO – Program Outcome
CO1	Define the principle of Web page design	
CO2	Define the basics in web design	
CO3	Visualize the basic concept of HTML.	
CO4	Introduce basics concept of CSS	
CO5	Develop the concept of web publishing	


Bloom's level wise marks distribution



Course Outcome Wise Marks Distribution



■ K1 ■ K2 ■ K3 ■ K4 ■ K5 ■ K6

 ARKAJAIN University Jharkhand		END SEM EXAMINATION School of Engineering & IT	
Branch	Computer Science and Engineering	Program	Diploma
Course Name	Web Designing & Multimedia Technology	Semester	V
		Year	Odd Nov/Dec 2023
Time: 3 Hour Maximum Marks : 70	<ul style="list-style-type: none"> 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 <u>Unfair Means</u> and will <u>Result</u> in the <u>Cancellation</u> of the Papers. 		
Knowledge Level (KL)	K1 : Remembering	K3 : Applying	K5 : Evaluating
	K2 : Understanding	K4 : Analysing	K6 : Creating

Section A (Each question Carry 02 Marks from Q1i to Q1x) - 20 Marks			
Q. No.1	QUESTION	Marks	COs KL PO
i.	List the different basic protocols used in Internet.	2	CO1 K1 PO2
ii.	What is ARPANET?	2	CO3 K2 PO1
iii.	Compare HTML and XML.	2	CO2 K1 PO1
iv.	What is the use of CSS in web designing?	2	CO1 K2 PO1
v.	Create a list of 4 subjects using HTML tags.	2	CO5 K1 PO2
vi.	Differentiate HTML and XHTML.	2	CO3 K1 PO6
vii.	Why do we need protocol?	2	CO1 K4 PO1
viii.	How will you include CSS in a web site?	2	CO1 K1 PO1
ix.	List the data types of XML.	2	CO3 K6 PO5
x.	Give the use of onload and onclick event with example.	2	CO1 K2 PO6

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

(Each question 5 Marks)

Q. No.	QUESTION	Marks	COs	KL	PO
2	Create an HTML page having a table of 3 rows and 3 columns containing subject names.	5	C02	K5	P05
3	Explain the client server architecture.	5	C02	K6	P01
4	List down different ways of using CSS in HTML.	5	C03	K2	P02
5	Compare IPv4 and IPv6.	5	C04	K3	P05
6	What is a Gateway? Mention its uses and types.	5	C02	K2	P06
7	Write short notes on any two: FDMA, FTP, HTTPS, CDMA.	5	C03	K2	P010

Section C (Answer any THREE out of FIVE) – 30 Marks

(Each question Carry 10 Marks)

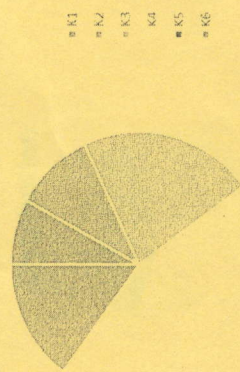
Q. No.	QUESTION	Marks	COs	KL	PO
8	Create a webpage having an image, marquee text, followed by any two CSS components.	10	C02	K5	P05
9	What are the differences between Get and post methods in form submitting.	10	C03	K3	P06
10	Define networking devices along with working of any two devices.	10	C04	K4	P01
11	Compare internet, intranet, extranet with proper example.	10	C05	K5	P02
12	What is a Router? Explain the entire routing process with diagram.	10	C05	K2	P05

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

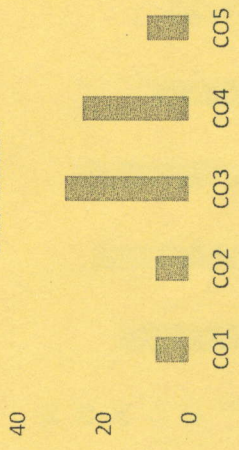
CO1	To understand concepts of Mobile Communication.
CO2	To Analyze the use of next generation networks
CO3	To understand network and transport layers of Mobile Communication.
CO4	To Analyze various protocols of all layers for mobile and adhoc wireless communication networks.

GRAFICAL REPRESENTATION

Bloom's Levelwise Marks Distribution



Course outcome based Marks Distribution



END SEM EXAMINATION
School of Engineering & IT

Branch	Computer Science & Engineering	Program	Diploma
Subject Name	Mobile Computing	Semester	V
		Year	Odd Nov/Dec-2023

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)
- 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 come under Unfair Means and will Result in the Cancellation of the Papers.

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 are wearable computers?	2	CO1	K1	PO1
ii	Define PSTN?	2	CO1	K2	PO1
iii	Define Mobile Computing?	2	CO1	K1	PO1
iv	Explain Quality of Service?	2	CO2	K2	PO2
v	Define MSC, MSTO?	2	CO2	K1	PO1
vi	What is Base Station Controller and Mobile Station?	2	CO1	K2	PO1
vii	What is Home Location Registration?	2	CO2	K3	PO2
viii	Define Visitor Location Register.	2	CO3	K1	PO1
ix	What is Network and Switching Subsystem?	2	CO2	K2	PO1
x	What is the work of Gateway MSC?	2	CO3	K2	PO1

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

(Each question 5 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
2	Explain GPRS Backbone	5	CO2	K3	PO2
3	Define Handover and types of Handover.	5	CO2	K4	PO2
4	Mention the Limitations of GPRS.	5	CO3	K4	PO1
5	Explain the Wireless LAN.	5	CO4	K6	PO2
6	Write short notes on MANET, 802.11, Bluetooth.	5	CO5	K3	PO1
7	Explain 801.11 Hotspots.	5	CO5	K4	PO1

Section C (Answer any THREE out of FIVE) – 30 Marks-

(Each question Carry 10 Marks)

Q. No.	QUESTIONS	Marks	COs	KL	PO
8	Mention the mobile computing Functions.	10	CO3	K6	PO1
9	With a neat diagram explain the three-tier architecture for mobile computing.	10	CO4	K4	PO2
10	Define and Explain Personal Communication Services architecture with a neat diagram.	10	CO2	K4	PO2
11	Describe GSM architecture with a neat diagram of system architecture of GSM.	10	CO3	K3	PO1
12	Explain GPRS Services with a neat system architecture diagram.	10	CO4	K4	PO1