PUNE INSTITUTE OF COMPUTER TECHNOLOGY
DHANKAWADI, PUNE –43
DEAPRTMENT OF COMPUTER ENGINEERING

410247:Laboratory Practice IV

410244(A): Pervasive Computing

1.	What is indoor positioning system? How it works?
2.	Enlist the components used in the design of location system to guide towards the library
3.	How GPS works?
4.	What is Transition API?
5.	What is an activity detection system on Android, and how does it work?
6.	Why is activity recognition important in mobile applications?
7.	What are some common use cases of activity detection on Android?
8.	Can you name the types of activities that an Android activity detection system can recognize?
9.	How does activity recognition contribute to user experience?
10.	What is an activity detection system on Android, and how does it work?
11.	What types of sensors are commonly used for detecting the availability of parking spaces?
12.	Can you explain how an ultrasonic sensor can help in identifying parking spaces?
13.	How does data transmission work in an IoT-based parking system?
14.	What is the role of cloud computing in smart parking solutions?
15.	How do you ensure real-time data accuracy in an IoT-based parking system?
16.	Can you describe the process of setting up an IoT parking detection system from sensors to user application?
17.	How would you integrate a parking detection system with a mobile app for end users?
18.	What communication protocols can be used in IoT systems for parking (e.g., Wi-Fi, Bluetooth, LoRaWAN)?
19.	What is the importance of using edge computing in smart parking solutions?
20.	How do you handle power management for sensors deployed in a parking lot?
21.	Can you describe the process of setting up an IoT parking detection system from sensors to user application?

22.	How would you integrate a parking detection system with a mobile app for end users?
23.	
24.	
25.	
26.	
27.	
28.	

410244(C): Cyber Security and Digital Forensics

1	What is email tracing and tracking in cyber security?
2	What are email forensics tools?
3	What is the important information of the header in an email?
4	what are the techniques Used in Email Forensic Investigation
5	What is CAPTCHA actually used for?
6	How to generate CAPTCHA?
7	What is a CAPTCHA example?
	What information does CAPTCHA collect?

410244(D): Object Oriented Modeling And Design

8	What is a honeypot? How does it protect against cyber attacks?
9	How do honeypots help in cyber security?
10	How do attackers detect honeypots?
11	Which type of data should a honeypot contain?

410245(A): Information Retrieval

1	How can data scraped from the internet be used for business intelligence, analytics, or research purposes?
2	What are the pros and cons of web scraping?
3	Why is Selenium often preferred over other tools for web scraping?
4	**What are the applications of IR?**
5	**Give the functions of the information retrieval system.**
6	**What are some open source search frameworks?**
7	**Define indexing & document indexing.**
8	**What are the three classic models in the information retrieval system?**
9	**Write the advantages of Latent Semantic Indexing Model?**
10	**Define Relevance feedback model**
11	**What are the Practical Issues on the Web?**
12	**What are the Main challenges posed by Web?**
13	**Define a Web Crawler?**
14	**List the Applications of a Web Crawler?**
15	**What are the basic rules for Web crawler operation?**
16	**What are the Indexing Issues?**
17	**Explain crawling and types of crawling?**
18	**Describe index compression techniques?**
19	**Define ranking for the web?**
20	**What is MapReduce?**
21	**Define Snippets.**
22	**Differentiate information filtering and information retrieval**
23	**Define text mining**
24	**Differentiate Text Mining vs. Data Mining ,web mining, information retrieval**
25	**What is Text Preprocessing?**

410245(D): Software Testing and Quality Assurance

	What are the Different Types of Software Testing
	What are the Different Phases of the Software Testing Life Cycle?
	What is use case testing?
	Why is software testing important?
	What is a bug report?
KD	**Explain different types of Testing**
	1. User Acceptance Testing 2. Sanity/Smoky Testing 3. Regression Testing 4. Performance Testing 5. Memory Testing 6.Scalability Testing 7. Compatibility Testing 8. Compliance Testing 9.

	Installation Testing 10. Recovery Testing 11. Session Testing 12. Cookies Testing 13. Security Testing
KD	**Explain Cyclomatic Complexity.**
