



**SAGAR INSTITUTE OF SCIENCE & TECHNOLOGY(SISTec)  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**QUESTION BANK**

**BRANCH**

**CSE**

**SESSION**

**2023-24**

**NAME OF THE FACULTY: ABHUDAY TRIPATHI**

**SUBJECT/CODE :SOFTWARE ARCHITECTURE/CS-701**

**UNIT 1**

Q. No.	Question	Bloom's Taxonomy Level	COURSE OUTCOME
1	Briefly explain about different software application domains. Discuss the need of correctness and robustness in software design?		CO1
2	What is the use of software architecture in software development?		CO1
3	What are the generic process framework activities that are present in every software process?		CO1
4	What are design patterns and explain its use in detail. Explain the step-by-step approach of applying a design pattern efficiently.		CO1
5	Explain about singleton pattern. What are the benefits of singleton pattern? Explain the following with examples <ul style="list-style-type: none"><li>• Abstract factory pattern</li><li>• Prototype pattern</li></ul>		CO1
6	Explain the need for software architectural styles. List out some of the common architectural styles in use and give examples for each style.		CO1
7	What do you understand by pipe and filter architecture? Elucidate some of its properties with examples.		CO1
8	Define Architecture Business Cycle? How architecture business cycle works?		CO1

<b>9</b>	Compare software development model on the basis of following parameters: - <ul style="list-style-type: none"> <li>• Approach</li> <li>• Advantage</li> <li>• Disadvantage</li> </ul>		<b>CO1</b>
<b>10</b>	Explain different software quality model.		<b>CO1</b>

## UNIT II

<b>Q. No.</b>	<b>Question</b>	<b>Bloom's Taxonomy Level</b>	<b>COURSE OUTCOME</b>
<b>1</b>	Explain pipe and filter style architecture in detail. Explain MVC in detail.		<b>CO2</b>
<b>2</b>	What is the use of structural model in software development?		<b>CO2</b>
<b>3</b>	What is a framework? How framework model can help in software development?		<b>CO2</b>
<b>4</b>	What is data flow architecture? How it is different from batch sequential data processing system ?		<b>CO2</b>
<b>5</b>	Explain the use of call and return architecture?		<b>CO2</b>
<b>6</b>	What are different architecture styles? Explain the following architecture styles:- dataflow architecture, pipes and filters architecture, call-and return architecture.		<b>CO2</b>
<b>7</b>	Explain advantages of reactive architecture? In which situation it can be		<b>CO2</b>

	more useful?		
<b>8</b>	Differentiate between SOAP and REST service.		<b>CO2</b>
<b>9</b>	What are the elements of REST service?		<b>CO2</b>
<b>10</b>	Explain the use of RESTfull API.		<b>CO2</b>

### UNIT 1II

<b>Q. No.</b>	<b>Question</b>	<b>Bloom's Taxonomy Level</b>	<b>COURSE OUTCOME</b>
<b>1</b>	What is J2EE?		<b>CO3</b>
<b>2</b>	What are the different technologies provided to the J2EE platform?		<b>CO3</b>
<b>3</b>	How is JDK different from JIT?		<b>CO3</b>
<b>4</b>	How is a multi tier client server architectural model advantageous?		<b>CO3</b>
<b>5</b>	What are the J2EE applets? Why can we use it?		<b>CO3</b>
<b>6</b>	What is EJB? How can you use it in J2EE?		<b>CO3</b>
<b>7</b>	What is the architecture model of Struts?		<b>CO3</b>
<b>8</b>	What constitutes web components?		<b>CO3</b>
<b>9</b>	What is EJB platform?		<b>CO3</b>
<b>10</b>	What is Hibernate?		<b>CO3</b>

## UNIT 1V

Q. No.	Question	Bloom's Taxonomy Level	COURSE OUTCOME
1	What is ATAM? Explain about the outputs of ATAM.		CO4
2	Differentiate between architecture analysis and design method?		CO4
3	Explain the usage of Software Architecture Analysis method?		CO4
4	Explain the advantages of using Cost Benefit Analysis method.		CO4
5	What are the advantages of using ATAM? Explain with an example.		CO4
6	How can Active Reviews for Intermediate Design can help us in analysis of software architecture?		CO4
7	How attribute driven design method helps in bringing quality in a software?		CO4
8	Explain the principles and challenges of software architecture reuse.		CO4
9	What role domain play in software development? Explain the domain specific software architecture development.		CO4
10	What is requirement architecture? Why it is important?		CO4

## UNIT V

Q. No.	Question	Bloom's Taxonomy Level	COURSE OUTCOME
1	Why is there a need of software architecture documentation?		CO5
2	What are the goals of software architecture documentation?		CO5
3	Explain principles of sound documentation.		CO5
4	How context diagram helps in development of software?		CO5
5	Explain the user interface design process? Explain the characteristics of software interface design?		CO5
6	“Variability is reflected in and facilitated through software architecture”-Justify the statement.		CO5
7	Why there is a need to document the behaviour of the software system?		CO5

<b>8</b>	How can we document behaviour of software documentation ?		<b>CO5</b>
<b>9</b>	What are the components of software architecture documentation ?		<b>CO5</b>
<b>10</b>	Explain the importance of refinement in software documentation.		<b>CO5</b>