

**K. J. Somaiya Institute of Technology, Sion, Mumbai-22**  
(Autonomous College Affiliated to University of Mumbai)

April – May 2024

B.Tech Program: IT Scheme I/II: II

Examination: TY Semester: VI

Course Code: ITC602 and Course Name: WEB X.O

Date of Exam: 17/5/2024

Duration: 2.5 Hours

Max. Marks: 60

**Instructions:**

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
<b>Q 1</b>	<b>Solve any six questions out of eight:</b>	<b>12</b>		
i)	List the components of Semantic web	02	CO1	U
ii)	Differentiate between var and let in Typescript.	02	CO2	U
iii)	Difference in Angular and AngularJS.	02	CO3	U
iv)	Describe advantages of MongoDB.	02	CO4	R
v)	Describe features of Flask.	02	CO5	U
vi)	What is the characteristic of rich internet application?	02	CO6	U
vii)	What is <code>@Input()</code> and <code>@Output()</code> decorators?	02	CO3	U
viii)	Describe the MongoDB data types.	02	CO4	U
<b>Q.2</b>	<b>Solve any four questions out of six.</b>	<b>16</b>		
i)	Describe the components of Semantic web?	04	CO1	U
ii)	Write a program for Fibonacci counter in typescript.	04	CO2	A
iii)	Explain the following directives in Angular with example. (a) ng-app (b) ng-init (c) ng-model (d) ng-bind	04	CO3	A
iv)	Apply create, modify, and delete users command within MongoDB with example.	04	CO4	A
v)	Create a application for File Uploading in Flask .	04	CO5	A

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vi)	Identify difference between traditional web application and rich internet application.	04	CO6	U
<b>Q.3</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Describe Web Ontology Language (OWL) in detail.	08	CO1	U
ii)	Write command for following with example and explanation for book information system. a. Find current database b. Find all the collections in current database c. Find all the results of the given collections d. Show the result in pretty form; e. Get only Sachin as first name data as an output f. Get only MongoDB data as an output with only name field g. Get only MongoDB data without _id field in it h. Set the filter to “no:41” and get only the first field with “no:32” value	08	CO4	A
iii)	Apply the App Routing and URL Building with example in Flask.	08	CO5	A
<b>Q.4</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Describe and apply the different types of inheritance in TypeScript with example.	08	CO2	A
ii)	Apply parent to child . child to parent and no relation Component interactions with example.	08	CO3	A
iii)	Develop pseudo code for sending request to server using XMLHttpRequest with GET and POST.	08	CO6	C

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