SUNBEAM INSTITUTE OF INFORMATION
TECHNOLOGY
KARAD
Web Programming Technologies
Module End Lab Exam

Course Name:	PG – DAC	Batch :	Mar 2024
Module Name:	Web Programming Technologies	Date:	07/05/2025
Max. Marks:	40	Duration :	2:00 Hours

Instructions :

1. Create **new workspace (folder)** by the name **ADS_12 digit PRN** in your home directory.
2. Create **new Project** with name **ADS_12 digit PRN**.
3. After evaluation, **first compress/zip your Folder (named ADS_12 digit PRN)** and upload it on EMIS.

Evaluation of Lab Exam is based on the following criteria :				
Self-declaration for Paper Code – A				
Sr. No.	Points to cover	Tick Mark by student	Max Marks	Marks by Evaluator
1.	Login Functionality		12	
2.	Retrieve Functionality		10	
3.	Vote Functionality		12	
4.	JWT		6	
		Total :	**40**	_____

Signature of Student   **Signature of Evaluator**

Question:
Develop a backend application using Node.js and Express.js framework to create a voting system.

Utilize MySQL database to store data related to voters, candidates, and votes.
Create API endpoints to handle various functionalities such as voter login, candidate listing, vote submission, etc.

Implement Security using JWT.

Q1. Implement login functionality for voters.
Create a login endpoint that accepts voter credentials (e.g. email, password). Validate the credentials against stored data in the database.
Request body
```
{

   "email":"riya.com",
   "password":"riya123"
}
```
Response body
```
{
   "status": "success",
   "data": {
      "token":
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpZCI6MSwiaWF0IjoxNzE1MDAwOTk1fQ.qTyGY8
VTfxhhemuqiIhde1Sqem_FgOdG5NI-WEEpiYE",
      "name": "riya"
}
```

Q2. Create a route to handle the request for retrieving candidates.
Query the database to fetch the list of candidates along with their details (e.g., name, ID).

Q3. Implement functionality to Submit vote for the candidate.
Ensure that if voter has already voted then he/she should not able to vote. Send proper message in response.

Q4. Generate JSON Web Tokens (JWT) for authentication.
Ensure secure storage and transmission of JWT tokens to prevent unauthorized access.