V.S.B. ENGINEERING COLLEGE, KARUR

(An Autonomous Institution)

Department of Electrical and Electronics Engineering

Academic Year: 2024-2025 (ODD Semester)

EE3007 –Smart Grid – Assignment mapping with CO, PO &PSO

Sl. No.	Student Name		Assignment topic	CO	PO	PSO
1	922521105001	ABINAYA. M	Fundamentals of Synchro phasor Technology	1	1,2,3,4,5,6,9	1,2,3
2	922521105002	ABIRAMI .R	Operational experience and Blackout analysis using PMU	1	1,2,3,5,6,9	1,2,3
3	922521105003	ANANTHI. A	Road map for synchro phasor applications	1	1,2,3,5,6,9,11	1,2,3
4	922521105004	ANGELIN NAYAKI .M	Block out and outage survey in smart grid	1	1,2,3,5,6,9,11	1,2,3
5	922521105005	ASIF ALI. B	Block out and outage survey in Micro grid	1	1,2,3,5,6,	1,2,3
6	922521105006	BALA SUBRAMANIAN. K	Overview and concept of renewable integration with smart grid	1	1,2,3,5,6,10,11,12	1,2,3
7	922521105007	DHAMODHARAN .S	Overview and concept of solar cell integration with smart grid	1	1,2,3,5,6,	1,2,3
8	922521105008	DHANUSH .S	Overview and concept of wind mill integration with smart grid	1	1,2,3,5,6,9	1,2,3
9	922521105009	DHANUSH KUMAR .E	Overview and concept of bio mass plant integration with smart grid	1	1,2,3,5,6,9	1,2,3
10	922521105010	DHANUSRI. P	Overview and concept of geo thermal integration with smart grid	1	1,2,3,5,6,9	1,2,3
11	922521105011	DHARANEESH .P	Overview and concept of ocean integration with smart grid	1	1,2,3,5,6,9	1,2,3
12	922521105012	DHARANI. V	Smart grid projects in India – A survey	1	1,2,3,5,6,9	1,2,3
13	922521105013	DHIVYADHARSHINI. M	Overview and concept of full cell integration with smart grid	1	1,2,3,5,6,10,11,12	1,2,3
14	922521105014	DRAVID .A	Overview and concept of nitrogen cell integration with smart grid	1	1,2,3,5,6,9	1,2,3
15	922521105015	GOKILA .K	Smart grid applications on Demand Side Management,	2	1,2,3,5,6,7,9	1,2,3
16	922521105016	GOPI. K	Smart grid applications on Load Management,	2	1,2,3,5,6,10,11,12	1,2,3
17	922521105017	HARIHARANKARTHICK.S	Smart grid applications on State Estimation,	2	1,2,3,5,6,9	1,2,3
18	922521105018	HARITHA.D	Smart grid applications on Energy Management and Conservation	2	1,2,3,5,6,9	1,2,3
19	922521105019	JAGADEESH. M	Smart grid applications on data Mining and Clustering.	2	1,2,3,5,6,9	1,2,3
20	922521105020	JAGATHEESHAN.P	Data analytics in smart grids	2	1,2,3,5,6,9	1,2,3
21	922521105021	JAISHREE. J	Big data Management in smart grid	2	1,2,3,5,6,9	1,2,3
22	922521105022	KARMUGIL .B	Operational Analytics in smart grid	2	1,2,3,5,6,10,11,12	1,2,3
23	922521105023	KARTHI S	Analytical Models in Utility integrated with smart grid	2	1,2,3,5,6,	1,2,3

Sl. No.	Student Name		Assignment topic	CO	PO	PSO
24	922521105024	KATHIRVEL. K	Predictive Analysis and Prescriptive Analysis in smart grid	2	1,2,3,5,6,10,11	1,2,3
25	922521105025	KAVIN .M	Applications in Energy Forecasting in smart grid	2	1,2,3,5,6,7	1,2,3
26	922521105026	KAVYADHARSHINI. R. K	Demand response and Energy Analytics in smart grid	2	1,2,3,5,6,7	1,2,3
27	922521105027	KISHOR. V	Micro grid projects in India – A survey	3	1,2,3,5,6,7	1,2,3
28	922521105028	LOGESHWARAN .S	Power Quality maintenance in Smart Grid	3	1,2,3,5,6,7	1,2,3
29	922521105029	MANISHA. T	Power Quality issues of Grid connected Renewable Energy Sources	3	1,2,3,5,6,7	1,2,3
30	922521105030	MANJUSRI. S	Power Quality Conditioners for Smart Grid	3	1,2,3,5,6,7	1,2,3
31	922521105031	MONISHA .G	Web based Power Quality monitoring,	3	1,2,3,5,6,	1,2,3
32	922521105032	MUTHUKUMAR. D	Power Quality Audit in smart grid	3	1,2,3,5,6,9	1,2,3
33	922521105033	NAGALAN. N	Operation and control of AC smart grid	3	1,2,3,5,6,9	1,2,3
34	922521105034	NANDHA KUMAR. T	Operation and control of DC smart grid	3	1,2,3,5,6,9	1,2,3
35	922521105035	NAVEEN SUBRAMANIYAN .M	Operation and control of DC micro grid	3	1,2,3,5,6,9	1,2,3
36	922521105036	NIJANTHAN. R	Operation and control of AC micro grid	3	1,2,3,5,6,9	1,2,3
37	922521105037	NOUSHIN BANU .M. I	Protection of smart grid	3	1,2,3,5,6,9	1,2,3
38	922521105038	OM PRAKASH .M	Modeling of DC smart grid components	3	1,2,3,5,6,9	1,2,3
39	922521105039	PADMAPRABHA .S. V	Modeling of storage devices	3	1,2,3,5,6,9	1,2,3
40	922521105040	PADMINI PRIYADHARSHINI. S	Operation and control of AC –DC hybrid smart grid	4	1,2,3,5,6,9	1,2,3
41	922521105041	PARVATHY .S	Simulation and case study of AC micro grid	4	1,2,3,5,6,9	1,2,3
42	922521105042	PRADEEP KUMAR .K	Simulation and case study of DC micro grid	4	1,2,3,5,6,9	1,2,3
43	922521105043	RAJ BHARATH .S. P	Simulation and case study of AC –DC hybrid smart grid	4	1,2,3,5,6,9,11	1,2,3
44	922521105045	RAMYA. R	Energy Management in Smart grid	4	1,2,3,5,6,9	1,2,3
45	922521105044	RAMYA.K	System analysis in AC/DC smart grid	4	1,2,3,5,6,9	1,2,3
46	922521105046	SABARISH .C	Architecture of Smart grid	4	1,2,3,5,6,9	1,2,3
47	922521105047	SAHANAA .R	Standards for smart grid system	4	1,2,3,5,6,9	1,2,3
48	922521105048	SANJAI .S	Elements and technologies of smart grid	4	1,2,3,5,6,9	1,2,3
49	922521105049	SHEIK AFRID .S. A	Concept and benefits of wide area monitoring system	4	1,2,3,5,6,9	1,2,3
50	922521105050	SIVA SURYA .D	Islanding detection techniques in smart grid	4	1,2,3,5,6,9	1,2,3
51	922521105051	SRI SAIRAM .V	Distributed generation resources	4	1,2,3,5,6,9	1,2,3
52	922521105052	SUGANTH .R	Distributed Generation integration to power grid	4	1,2,3,5,6,9	1,2,3
53	922521105053	SUJITHA DEVI .S	Concepts of Power Flow Analysis,	4	1,2,3,5,6,9	1,2,3
54	922521105054	SWETHA .R	Economic Dispatch and Unit Commitment	5	1,2,3,5,6,9,10,11	1,2,3
55	922521105055	THENNARASU. N	Issues of interconnection in smart grid	5	1,2,3,5,6,9,10,11	1,2,3
56	922521105056	VAISHALI .I	Different methods of islanding detection in smart grid	5	1,2,3,5,6,9	1,2,3
57	922521105057	VAISHNAVI. G	Cyber-attacks in smart grid	5	1,2,3,5,6,9	1,2,3

Sl. No.	Student Name		Assignment topic	CO	PO	PSO
58	922521105058	VENKATESH. D	Smart grid configuration for AC industrial network – A survey	5	1,2,3,5,6,9,11	1,2,3
59	922521105059	VINOTH KUMAR. M	Power flow management in smart grid	5	1,2,3,5,6,9	1,2,3
60	922521105060	VISHWANAATH .G	Types of faults in smart grid	5	1,2,3,5,6,9	1,2,3
61	922521105061	YALINI .K	Types of protection circuits used in smart grid	5	1,2,3,5,6,9	1,2,3
62	922521105062	YUVARAJ. M	Green energy initiatives in smart grid for sustainable development	5	1,2,3,5,6,9,11	1,2,3
63	922521105301	ELAVARASAN D	How environmental issues are minimized in smart grid as compared to electric grid	5	1,2,3,5,6,9,11	1,2,3
64	922521105302	KURALARASAN S	How safety and reliability increased in smart grid as compared to electric grid	5	1,2,3,5,6,9	1,2,3
65	922521105303	THANGAPANDI M	Compare micro grid and smart grid from sifter, reliable and efficiency point of view	5	1,2,3,5,6,9	1,2,3
66	922521105304	YUVANSHANKARRAJ C	Types of protection circuits used in micro grid	5	1,2,3,5,6,9	1,2,3
67	922521105001	ABINAYA. M	Power Quality maintenance in Micro Grid	5	1,2,3,5,6,9	1,2,3
68	922521105002	ABIRAMI .R	Green energy initiatives in micro grid for sustainable development	5	1,2,3,5,6,9	1,2,3

Prepared by **Verified by**

V.S.B. ENGINEERING COLLEGE, KARUR

(AN AUTONOMOUS INSTITUTION)

Department of Electrical and Electronics Engineering

Academic Year: 2024-2025 (ODD Semester)

OCH353 - ENERGY TECHNOLOGY – ASSIGNMENT QUESTIONS

Class/Sem: IV/VII

CO 6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
	3	3	2	3	1	3	2	2	-	-	2	3	2	3	3

Sl. No.	Student Name	Questions	POs	PSOs
1.	Abinaya.M	Enumerate the solar radiation at the Earth's surface.	1,2,4,6,8,9,12	1,2,3
2.	Abirami.R	Explain the solar radiation at the tilted surface.	1,2,4,6,8,9,12	1,2,3
3.	Ananthi.A	Derive the estimation of the average solar radiation.	1,2,4,6,8,9,12	2,3
4.	Angelin Nayaki.M	*Calculate the useful gain, exit fluid temperature and collection efficiency for a cylindrical parabolic concentrator system of 2 m width and 8 m length. The absorbing cylinder has a diameter of 6 cm and the transparent cover has a diameter of 9 cm optical properties are estimated as* $\rho = 0.85, (\tau \cdot \alpha) = 0.77, \gamma = 0.94$ *Heat transfer coefficient from fluid inside to surroundings,* $U_o = 5.2$ *kcal/hr* m^2 *°C (6.04 W/*m^2 *°C),* *Heat transfer coefficient from absorber cover surface to surroundings* $U_L = 6.0$ *kcal/hr-*m^2 *°C (6.98 W/*m^2 *°C).* *The incident beam radiation on the aperture of the collector is 600 kcal/hr* m^2 *(698 W/*m^2*) and the ambient temperature is 25°C. The collector is designed to heat a fluid entering the absorber at 150°C, at a flow rate of 400 kg/hr. The fluid has* $C_p = 0.30$ *kcal/kg °C (1.256 kJ/kg °C).*	1,2,4,6,8,9,12	2,3
5.	Asif Ali.B	Describe about the performance of solar collector energy balance equation and collector efficiency.	1,2,4,6,8,9,12	1,2,3

6.	Bala Subramanian.K	Explain the thermal analysis of flat plate collector and useful heat gained by the fluid.	1,2,4,6,8,9,12	2,3
7.	Dhamodharan.S	Analyze the performance of cylindrical parabolic concentrating collector.	1,2,3,4,6,8,9,12	1,2,3
8.	Dhanush.S	Explain the concept of thermal storage in solar energy systems.	1,2,3,4,6,8,9,12	1,2,3
9.	Dhanush Kumar.E	Describe in detail about the transmissivity of cover system in solar plant.	1,2,3,4,6,8,9,12	2,3
10.	Dhanusri.P	*Data for a flat plate collector used for heating the building are given below :* *Factor* — *Specification* *Location and latitude* — *Baroda, 22°N* *Day and time* — *January 1, 11 : 30—12 : 30 (IST)* *Annual average intensity, of solar radiation* — *0.5 langley/min* *Collector tilt* — *latitude + 15°* *No. of glass covers* — *2* *Heat removal factor for collector* — *0.810* *Transmittance of the glass* — *0.88* *Absorptance of the glass* — *0.90* *Top loss coefficient for collector* — *7.88 W/m² °C (6.80 kcal/hr m² °C)* *Collector fluid temperature* — *60°C* *Ambient temperature* — *15°C* *Calculate :* *(i) Solar altitude angle,* *(ii) Incident angle,* *(iii) Collector efficiency.*	1,2,4,6,8,9,12	2,3
11.	Dharaneesh.P	Design a solar power plant with its ratings.	1,2,4,6,7,8,9,12	2,3
12.	Dharani.V	Design a wind power plant with its ratings.	1,2,4,6,7,8,9,12	2,3
13.	Dhivyadharshini.M	Enumerate in detail about the packed bed exchanger storage using solar energy.	1,2,4,6,8,9,12	2,3
14.	Dravid.A	Elaborate about the notes of Latent heat storage (phase change energy storage).	1,2,4,6,7,8,9,12	2,3
15.	Gokila.K	Explain the following solar energy storage: (i)Battery storage (ii)Electrical Storage	1,2,4,6,7,8,9,12	1,2,3

16.	Gopi.K	Explain the solar energy storage in chemical storage	1,2,4,6,8,9,12	2,3
17.	Hariharankarthick.S	Explain the solar energy storage in mechanical energy storage	1,2,4,6,8,9,12	2,3
18.	Haritha.D	Elaborate about the application of a solar pond	1,2,4,6,8,9,12	2,3
19.	Jagadeesh.M	What do you mean by solar green houses? Explain it in detail.	1,2,4,6,8,9,12	2,3
20.	Jagatheeshan.P	Describe briefly the different methods of producing hydrogen from solar energy	1,2,4,6,8,9,12	2,3
21.	Jaishree.J	Explain in detail about the solar pumping	1,2,4,6,8,9,12	2,3
22.	Karmugil.B	Explain in detail about the solar cooking	1,2,3,4,6,8,9,12	2,3
23.	Karthi.S	Design the solar green house orientation with optimized slope for orientation 30N.	1,2,4,6,8,9,12	2,3
24.	Kathirvel.K	Explain the concept of the green house environmental and control.	1,2,4,6,8,9,12	1,2,3
25.	Kavin.M	Design a biogas power plant with neat diagrams.	1,2,4,6,8,9,12	2,3
26.	Kavyadharshini.R. K	Elaborate about the following concepts (i) The nature of the wind (ii) The power in the wind.	1,2,4,6,8,9,12	2,3
27.	Kishor.V	How to get maximum power in wind energy? Explain it in detail.	1,2,4,6,8,9,12	2,3
28.	Logeshwaran.S	Describe about the derivation of forces on the blades and thrust on turbines.	1,2,4,6,8,9,12	2,3
29.	Manisha.T	Explain in detail about the wind energy conversion process.	1,2,4,6,8,9,12	2,3
30.	Manjusri.S	**Wind at 1 standard atmospheric pressure and 15°C has velocity of 15 m/s calculate :** **(*i*) the total power density in the wind stream,** **(*ii*) the maximum obtainable power density,** **(*iii*) a reasonally obtainable power density,** **(*iv*) the total power, and** **(*v*) the torque and axial thrust.** **Given : turbine diameter = 120 m, and turbine operating speed = 40 r.p.m. at maximum efficiency. Propeller type wind turbine is considered.**	1,2,4,6,8,9,12	2,3
31.	Monisha.G	Explain about the wind data and energy estimation in India.	1,2,4,6,8,9,12	2,3
32.	Muthukumar.D	Describe in detail about the survey of available wind power.	1,2,4,6,8,9,12	2,3
33.	Nagalan.N	Enumerate about the site selection of wind power plant.	1,2,4,6,8,9,12	2,3
34.	Nandha Kumar.T	Write short notes on classification of WEC systems and explain in detail about the advantages and disadvantages of WECS.	1,2,4,6,8,9,12	2,3
35.	Naveen	Explain the design consideration of horizontal-axis machines in	1,2,4,6,8,9,12	1,2,3

	Subramaniyan.M	wind mill.		
36.	Nijanthan.R	Analyze the aerodynamic forces acting on the blade in wind mill.	1,2,4,6,8,9,12	1,2,3
37.	Noushin Banu.M. I	Describe in detail about the typical performance of wind-machines.	1,2,4,6,8,9,12	1,2,3
38.	Om Prakash.M	Describe the different schemes for wind electric generation or describe the generation systems.	1,2,4,6,8,9,12	1,2,3
39.	Padmaprabha.S. V	With neat sketches, describe in detail about the main applications of wind energy.	1,2,4,6,8,9,12	1,2,3
40.	Padmini Priyadharshini.S	Explain about the direct heat applications & Electric generation application using wind energy.	1,2,4,6,8,9,12	2,3
41.	Parvathy.S	Explain in about the solar-wind system with storage battery supplying to various consumers.	1,2,4,6,8,9,12	2,3
42.	Pradeep Kumar.K	Describe in detail about the safety systems & environmental aspects of wind plant.	1,2,4,6,8,9,12	2,3
43.	Raj Bharath.S.P	Explain in detail about the wet processes using biomass energy.	1,2,4,6,8,9,12	1,2,3
44.	Ramya.K	Explain in detail about the dry processes using biomass energy.	1,2,4,6,8,9,12	1,2,3
45.	Ramya.R	Explain the operation of photosynthesis process in biomass energy.	1,2,4,6,8,9,12	1,2,3
46.	Sabarish.C	Describe in detail about the factors affecting bio-digestion and generation of gas	1,2,4,6,8,9,12	1,2,3
47.	Sahanaa.R	What are the classification of biogas plants? Explain in detail about the continuous and batch type plant.	1,2,4,6,8,9,12	2,3
48.	Sanjai.S	With neat diagram, explain in detail about the Deen Bandhu biogas plant.	1,2,4,6,8,9,12	2,3
49.	Sheik Afrid.S. A	Explain in detail about the following biogas plant (i) Floating gas holder plant (ii) Pragathi design biogas plant	1,2,4,6,8,9,12	2,3
50.	Siva Surya.D	Elaborate about the constructional details of some main digesters.	1,2,4,6,8,9,12	2,3
51.	Sri Sairam.V	Explain the concept of bio-gas from plant waste & Wet and dry fermentation.	1,2,4,6,8,9,12	2,3
52.	Suganth.R	Elaborate about the kachra gas plant with neat diagram.	1,2,4,6,8,9,12	2,3
53.	Sujitha Devi.S	Describe in detail about the pilot plants using plant wastes.	1,2,4,6,8,9,11,12	1,2,3
54.	Swetha.R	Explain in about the materials used for bio-gas generation.	1,2,4,6,8,9,12	2,3
55.	Thennarasu.N	Explain in detail about the selection of site for a biogas plant.	1,2,4,6,8,9,12	2,3
56.	Vaishali.I	Explain in detail about the digester design.	1,2,4,6,8,9,11,12	2,3

57.	Vaishnavi.G	Write short notes on design of a community biogas plant for a village.	1,2,4,6,8,9,12	2,3
58.	Venkatesh.D	Explain in detail about the methods for maintaining biogas production.	1,2,4,6,8,9,12	2,3
59.	Vinoth Kumar.M	Enumerate about the Problems related to bio-gas plants	1,2,4,6,8,9,12	2,3
60.	Vishwanaath.G	Explain in detail about the utilization of bio-gas.	1,2,4,6,8,9,12	2,3
61.	Yalini.K	Describe in detail about the chemistry of the gasification process	1,2,4,6,8,9,12	1,2,3
62.	Yuvaraj.M	Elaborate about the applications of the gasifier.	1,2,4,6,7,8,9,12	1,2,3
63.	Elavarasan.D	**A 250 MW vapour-dominated hydrothermal power plant uses saturated steam at 31 kg/cm^2 at shut-off. The steam is throttled to a turbine at inlet pressure of 9.55 kg/cm^2. A direct contact condenser operates at a pressure of 0.35 kg/cm^2 with the cooling-tower exist is at 25°C. The turbine polytropic efficiency is 0.80 and the turbine-generator combined mechanical and electrical efficiency is 0.9.** **Calculate :** **(*i*) Steam flow rate in kg/hr and m^3/kg ;** **(*ii*) The cooling water flow kg/hr ;** **(*iii*) Plant efficiency and** **(*iv*) Heat rate.** **Reinjection occurs prior to the cooling tower.**	1,2,4,6,8,9,12	2,3
64.	Kuralarasan.S	Explain about the geothermal energy available in India	1,2,4,6,8,9,12	2,3
65.	Thangapandi.M	Explain in detail about the thermo electric power generator.	1,2,4,6,8,9,12	2,3
66.	Yuvan Shankar Raja.C	Elaborate about the concept of basic thermionic generator.	1,2,4,6,8,9,12	2,3

V.S.B. ENGINEERING COLLEGE, KARUR

(AN AUTONOMOUS INSTITUTION)

Department of Electrical and Electronics Engineering

Academic Year: 2024- 2025 (ODD Semester)

Assignment Questions

Class: **IV Year/ VII Semester-EEE**

Name of Subject: **EE3701 – High Voltage Engineering**

Name of Faculty member: **Dr.P.ARULKUMAR**

Assignment Outcome	Program Outcomes												PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO6	3	3	3	3	3	2	2	3	3	3	3	2	3	3	1

Sl.No	Reg. No.	Name of the Student	Assignment Questions	POs	PSOs
1	922521105001	ABINAYA. M	Explain the testing of sphere gap method and also explain specifications on spheres and associated accessories.	1,2,3,4,5,8,9,10,12	1,2
2	922521105002	ABIRAMI .R	Explain the rod gaps Concept in breakdown.	1,2,3,4,5,8,9,10,12	1,2
3	922521105003	ANANTHI. A	Explain the measurement of dielectric constant and loss factor.	1,2,3,4,5,8,9,10,12	1,2
4	922521105004	ANGELIN NAYAKI .M	Explain the testing of circuit breakers.	1,2,3,4,5,8,9,10,12	1,2,3
5	922521105005	ASIF ALI. B	Explain the method of impulse testing of high voltage transformer? What is the procedure adapted for locating the fault?	1,2,3,4,5,8,9,10,12	1,2
6	922521105006	BALA SUBRAMANIAN. K	Explain in detail about Towers for UHV transmission: calculations of clearances for power frequency, switching and lightning surges, right of way(ROW) etc.,	1,2,3,4,5,8,9,10,12	1,2
7	922521105007	DHAMODHARAN .S	Explain in detail about Major Components of HV transmission systems, types of conductor configurations conductor accessories/clamps.	1,2,3,4,5,8,9,10,12	1,2
8	922521105008	DHANUSH .S	Explain in detail about General Design Criteria for overhead transmission lines: Methodologies, reliability wind/ice loading etc.,	1,2,3,4,5,8,9,10,12	1,2
9	922521105009	DHANUSH KUMAR .E	Explain in detail about Introduction to the development of Power Transmission Recent advances in UHV power transmission systems; present status and future growth	1,2,3,4,5,8,9,10,12	1,2
10	922521105010	DHANUSRI. P	Explain in detail about Underground power cables.	1,2,3,4,5,8,9,10,12	1,2,3
11	922521105011	DHARANEESH .P	Explain in detail about Safety in the High Voltage Laboratory	1,2,3,4,5,8,9,10,12	1,2,3
12	922521105012	DHARANI. V	Explain in detail about Step and Touch Potential, Equipotential Platforms and Voltage Transfer	1,2,3,4,5,8,9,10,12	1,2

Sl.No	Reg. No.	Name of the Student	Assignment Questions	POs	PSOs
13	922521105013	DHIVYADHARSHINI. M	Explain in detail about Coordinated wood pole insulation coordination	1,2,3,4,5,8,9,10,12	1,2
14	922521105014	DRAVID .A	Explain in detail about Explain in detail about The Performance of Combinations of Gases, Solids and Liquids in Insulation Systems.	1,2,3,4,5,8,9,10,12	1,2
15	922521105015	GOKILA .K	Explain in detail about Types of Electric Fields and Degree of Uniformity of Fields,	1,2,3,4,5,8,9,10,12	1,2
16	922521105016	GOPI. K	Explain in detail about Over Voltages and Basic Insulation Level Design Systems	1,2,3,4,5,8,9,10,12	1,2,3
17	922521105017	HARIHARANKARTHICK. S	Explain in detail about Partial Breakdown (PB) Measurement Techniques in dielectrics/Equipment	1,2,3,4,5,8,9,10,12	1,2
18	922521105018	HARITHA.D	Explain in detail about Comparison of the development of breakdown in extremely and weakly non-uniform fields and the requirement of time for breakdown in solid dielectrics	1,2,3,4,5,8,9,10,12	1,2
19	922521105019	JAGADEESH. M	Explain in detail about Classification and Properties of Liquid Dielectrics, Classification and Properties of Solid Dielectrics	1,2,3,4,5,8,9,10,12	1,2
20	922521105020	JAGATHEESHAN.P	Explain in detail about Development of Electron Avalanche	1,2,3,4,5,8,9,10,12	1,2
21	922521105021	JAISHREE. J	Explain in detail about Levels of high voltage,Votage Levels, Electrical Insulation and Dielectrics	1,2,3,4,5,8,9,10,12	1,2
22	922521105022	KARMUGIL .B	Explain in detail about Capacitive and Inductive Coupling, Floating Objects, Current Loops.	1,2,3,4,5,8,9,10,12	1,2
23	922521105023	KARTHI S	Explain in detail about Insulator Pollution	1,2,3,4,5,8,9,10,12	1,2
24	922521105024	KATHIRVEL. K	Explain in detail about Insulation coordination for UHV systems	1,2,3,4,5,8,9,10,12	1,2
25	922521105025	KAVIN .M	Explain in detail about Design consideration of UHV substations, Comparison of AIS, Hybrid-AIS and GIS electric and magnetic fields	1,2,3,4,5,8,9,10,12	1,2
26	922521105026	KAVYADHARSHINI. R. K	Explain in detail about Selection of insulators for light, medium and heavy polluted	1,2,3,4,5,8,9,10,12	1,2,3
27	922521105027	KISHOR. V	Explain in detail about Pollution various insulating materials.	1,2,3,4,5,8,9,10,12	1,2
28	922521105028	LOGESHWARAN .S	Explain in detail about Insulation coordination for EHV systems	1,2,3,4,5,8,9,10,12	1,2
29	922521105029	MANISHA. T	Explain in detail about Design consideration of UHV substations, Comparison of AIS	1,2,3,4,5,8,9,10,12	1,2
30	922521105030	MANJUSRI. S	Explain in detail about Selection of insulators for light, medium and heavy polluted	1,2,3,4,5,8,9,10,12	1,2
31	922521105031	MONISHA .G	Explain in detail about Towers for UHV transmission: calculations of clearances for power frequency, switching and lightning surges, right of way(ROW)etc	1,2,3,4,5,8,9,10,12	1,2
32	922521105032	MUTHUKUMAR. D	Explain in detail about Major Components of HV transmission systems, types of conductor configurations conductor accessories/clamps etc.	1,2,3,4,5,8,9,10,12	1,2
33	922521105033	NAGALAN. N	Explain in detail about General Design Criteria for overhead transmission lines: Methodologies, reliability wind/ice loading etc	1,2,3,4,5,8,9,10,12	1,2
34	922521105034	NANDHA KUMAR. T	Explain in detail about Introduction to the development of Power Transmission Recent advances in UHV power transmission systems;	1,2,3,4,5,8,9,10,12	1,2

Sl.No	Reg. No.	Name of the Student	Assignment Questions	POs	PSOs
			present status and future growth		
35	922521105035	NAVEEN SUBRAMANIYAN .M	Explain in detail about Underground power cables	1,2,3,4,5,8,9,10,12	1,2
36	922521105036	NIJANTHAN. R	Explain in detail about Safety in the High Voltage Laboratory	1,2,3,4,5,8,9,10,12	1,2
37	922521105037	NOUSHIN BANU .M. I	Explain in detail about Step and Touch Potential, Equip potential Platforms and Voltage Transfer	1,2,3,4,5,8,9,10,12	1,2
38	922521105038	OM PRAKASH .M	Explain in detail about Coordinated wood pole insulation coordination	1,2,3,4,5,8,9,10,12	1,2
39	922521105039	PADMAPRABHA .S. V	Explain in detail about Explain in detail about The Performance of Combinations of Gases, Solids and Liquids in Insulation Systems.	1,2,3,4,5,8,9,10,12	1,2
40	922521105040	PADMINI PRIYADHARSHINI. S	Explain in detail about Types of Electric Fields and Degree of Uniformity of Fields,	1,2,3,4,5,8,9,10,12	1,2
41	922521105041	PARVATHY .S	Explain in detail about Over Voltages and Basic Insulation Level Design Systems	1,2,3,4,5,8,9,10,12	1,2
42	922521105042	PRADEEP KUMAR .K	Explain in detail about Partial Breakdown(PB) Measurement Techniques in dielectrics/Equipment	1,2,3,4,5,8,9,10,12	1,2
43	922521105043	RAJ BHARATH .S. P	Explain in detail about Comparison of the development of breakdown in extremely and weakly non-uniform fields	1,2,3,4,5,8,9,10,12	1,2
44	922521105044	RAMYA.K	Explain in detail about Classification and Properties of Liquid Dielectrics, Classification and Properties of Solid Dielectrics	1,2,3,4,5,8,9,10,12	1,2
45	922521105045	RAMYA. R	Explain in detail about Development of Electron Avalanche	1,2,3,4,5,8,9,10,12	1,2
46	922521105046	SABARISH .C	Explain in detail about Levels of high voltage,Votage Levels,Electrical Insulation and Dielectrics	1,2,3,4,5,8,9,10,12	1,2
47	922521105047	SAHANAA .R	Explain in detail about Insulation coordination for EHV systems	1,2,3,4,5,8,9,10,12	1,2
48	922521105048	SANJAI .S	Explain in detail about Insulation coordination for EHVAC systems	1,2,3,4,5,8,9,10,12	1,2
49	922521105049	SHEIK AFRID .S. A	Explain in detail about insulation coordination in EHVAC	1,2,3,4,5,8,9,10,12	1,2
50	922521105050	SIVA SURYA .D	Discuss the important properties of (i) gaseous; (ii) liquid; and (iii) solid insulating materials.	1,2,3,4,5,8,9,10,12	1,2
51	922521105051	SRI SAIRAM .V	Explain the concept of corona discharge.	1,2,3,4,5,8,9,10,12	1,2
52	922521105052	SUGANTH .R	What is a cascaded transformer? Explain why cascading is done?	1,2,3,4,5,8,9,10,12	1,2
53	922521105053	SUJITHA DEVI .S	Explain with neat diagram the principle of operation of (i) series (ii) parallel resonant circuits for generating high a.c. voltages.	1,2,3,4,5,8,9,10,12	1,2
54	922521105054	SWETHA .R	Explain in detail about Electrostatic Fields.	1,2,3,4,5,8,9,10,12	1,2
55	922521105055	THENNARASU. N	Discuss in detail about the Instrument transformers.	1,2,3,4,5,8,9,10,12	1,2,3
56	922521105056	VAISHALI .I	Explain in detail about the Power Network.	1,2,3,4,5,8,9,10,12	1,2
57	922521105057	VAISHNAVI. G	Explain in detail about Utilization of Dielectric Properties and Stress Control	1,2,3,4,5,8,9,10,12	1,2
58	922521105058	VENKATESH. D	Explain in detail about Capacitive and Inductive Coupling, Floating Objects, Current Loops.	1,2,3,4,5,8,9,10,12	1,2
59	922521105059	VINOTH KUMAR. M	Explain in detail about Safety in the High Voltage Laboratory	1,2,3,4,5,8,9,10,12	1,2
60	922521105060	VISHWANAATH .G	Explain in detail about Pollution various insulating materials.	1,2,3,4,5,8,9,10,12	1,2

Sl.No	Reg. No.	Name of the Student	Assignment Questions	POs	PSOs
61	922521105061	YALINI .K	Explain in detail about Insulation coordination for EHV systems	1,2,3,4,5,8,9,10,12	1,2
62	922521105062	YUVARAJ. M	Explain in detail about Design consideration of UHV substations, Comparison of AIS	1,2,3,4,5,8,9,10,12	1,2,3
63	922521105301	ELAVARASAN D	Explain in detail about Pollution various insulating materials.	1,2,3,4,5,8,9,10,12	1,2
64	922521105302	KURALARASAN S	Explain in detail about Insulation coordination for UHVAC systems	1,2,3,4,5,8,9,10,12	1,2
65	922521105303	THANGAPANDI M	Explain in detail about the FACT system	1,2,3,4,5,8,9,10,12	1,2
66	922521105304	YUVANSHANKARRAJA C	Explain in detail about Insulation coordination for HVAC systems	1,2,3,4,5,8,9,10,12	1,2

V.S.B. ENGINEERING COLLEGE

(An Autonomous Institution)
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
An ISO 9001:2015 Certified Institution
Accredited by NAAC, NBA Accredited Courses

Assignment Questions

Class: **IV Year/ VII Semester EEE**
Subject Name/Code:**CME365 - Renewable Energy Technologies**
Faculty name: **DrK.Umamaheswari**

Sl. No	Register No.	Name of the Student	Topic Details	CO	PO	PSO
1.	922521105001	Abinaya. M	Write detailed notes on present status of power generation on india.	2	6, 12	2
2.	922521105002	Abirami .R	Draw general lay of modern steam power plant label major components and state functions of each component.	2	6, 12	2
3.	922521105003	Ananthi. A	Draw neat named general layout of modern thermal power plant. Explain four main circuits. List various factors to consider for site selection of thermal power station.	1	2, 12	1, 3
4.	922521105004	Angelin Nayaki .M	Name factors to be considered for selection of site for thermal power stations.	1	2, 12	1, 3
5.	922521105005	Asif Ali. B	Explain the constructional difference between low pressuer and High pressure boiler.	1	2, 12	1, 3
6.	922521105006	Bala Subramanian. K	Explain with neat sketch construction and working of Lamont boiler.	1	2, 12	1, 3
7.	922521105007	Dhamodharan .S	Explain with neat sketch construction and working of Benson boiler.	2	6, 12	2
8.	922521105008	Dhanush .S	Draw with neat sketch of once through drum less boiler. What are its advantages over conventional high pressure boilers?	2	6, 12	2
9.	922521105009	Dhanush Kumar .E	Draw a neat line diagram of a Benson boiler. State main difficulty experienced in the Lamont boiler and how it is prevented. Explain its advantages.	2	6, 12	2
10.	922521105010	Dhanusri. P	Explain construction and working of Loffeler boiler. Also explain starting of Loffeler boiler.	2	6, 12	2
11.	922521105011	Dharaneesh .P	With neat sketch explain construction and working of Schmidt-hartmann boiler.	2	6, 12	2
12.	922521105012	Dharani. V	Draw line diagram of Velox boiler. Indicate all part of it. How it different from the other type of high pressure boiler?	2	6, 12	2

13.	922521105013	Dhivyadharshini. M	Explain the working of pressurized fluidized bed combustion boiler with help of neat sketch. List advantages and Limitations.	2	6, 12	2
14.	922521105014	Dravid .A	Explain the working principle of fluidized bed boiler with necessary diagram. How sulfur and Nitrogen emissions are controlled in fluidized bed boiler?	3	5, 9	3
15.	922521105015	Gokila .K	Discuss the principle of operation of overfeed and underfeed stokers with help of simple diagrams. Which is preferred for high volatile coal and Why?	3	5, 9	3
16.	922521105016	Gopi. K	Classify stokers and explain any one overfeed stoker with necessary diagram.	3	5, 9	3
17.	922521105017	Hariharankarthick.S	Explain the travelling grate stoker with help of neat sketch.	3	5, 9	3
18.	922521105018	Haritha.D	Classify pulverized mill used in modern power plant. Explain any one with neat sketch.	3	5, 9	3
19.	922521105019	Jagadeesh. M	Discuss the requirements of good oil burner. Explain different types of pulverizing fuel burners.	2	6, 12	2
20.	922521105020	Jagatheeshan.P	Why ash handling problem is more difficult than coal handling problems? Also explain requirements of good ash handling systems.	2	6, 12	2
21.	922521105021	Jaishree. J	Explain the working of Electrostatic precipitator with neat sketch.	2	6, 12	2
22.	922521105022	Karmugil .B	Explain the metastable flow of steam through a nozzle and the significance of Wilson's line.	2	6, 12	2
23.	922521105023	Karthi S	Explain the effect of varying the back pressure in convergent – divergent nozzle.	2	6, 12	2
24.	922521105024	Kathirvel. K	Describe the different types of nozzles with neat sketch. State the function of Nozzles.	2	6, 12	2
25.	922521105025	Kavin .M	Explain the working of Pass- out turbine.	2	6, 12	2
26.	922521105026	Kavyadharshini. R. K	Define the term "Degree of Reaction". Explain Parson's reaction turbine.	2	6, 12	2
27.	922521105027	Kishor. V	What is meant by Uranium enrichment? Describe some methods of Uranium enrichment. Compare economic cost of nuclear power plant with steam power plant.	2	6, 12	2
28.	922521105028	Logeshwaran .S	Describe nuclear fuel briefly. Explain nuclear waste and its disposal.	1	2, 12	1, 3
29.	922521105029	Manisha. T	Explain with neat sketch "Ram jet engine".	2	6, 12	2
30.	922521105030	Manjusri. S	Draw schematic diagram of turbo jet engine and explain its working. List advantages and disadvantages of jet engine.	2	6, 12	2
31.	922521105031	Monisha .G	Explain basic working principle of rocket engine with neat sketch.	2	6, 12	2
32.	922521105032	Muthukumar. D	Explain diversity factors and its importance. Define depreciation and	2	6, 12	2

			explain its significance.			
33.	922521105033	Nagalan. N	Write detailed notes on present status of power generation on India.	2	6, 12	2
34.	922521105034	Nandha Kumar. T	Draw general lay of modern steam power plant label major components and state functions of each component.	2	6, 12	2
35.	922521105035	Naveen Subramaniyan .M	Draw schematic diagram of turbo jet engine and explain its working. List advantages and disadvantages of jet engine.	2	6, 12	2
36.	922521105036	Nijanthan. R	Name factors to be considered for selection of site for thermal power stations.	3	5, 9	3
37.	922521105037	Noushin Banu .M. I	Explain the constructional difference between low pressure and High pressure boiler.	3	5, 9	3
38.	922521105038	Om Prakash .M	Explain with neat sketch construction and working of Lamont boiler.	3	5, 9	3
39.	922521105039	Padmaprabha .S. V	Explain with neat sketch construction and working of Benson boiler.	3	5, 9	3
40.	922521105040	Padmini Priyadharshini. S	Draw with neat sketch of once through drum less boiler. What are its advantages over conventional high pressure boilers?	3	5, 9	3
41.	922521105041	Parvathy .S	Describe nuclear fuel briefly. Explain nuclear waste and its disposal	2	6, 12	2
42.	922521105042	Pradeep Kumar .K	Explain construction and working of Loffler boiler. Also explain starting of Loffeler boiler.	2	6, 12	2
43.	922521105043	Raj Bharath .S. P	With neat sketch explain construction and working of Schmidt-Hartmann boiler.	2	6, 12	2
44.	922521105045	Ramya. R	Draw line diagram of Velox boiler. Indicate all part of it. How it different from the other type of high pressure boiler?	3	5, 9	3
45.	922521105044	Ramya.K	Explain the working of pressurized fluidized bed combustion boiler with help of neat sketch. List advantages and Limitations.	2	6, 12	2
46.	922521105046	Sabarish .C	Explain the working principle of fluidized bed boiler with necessary diagram. How sulfur and Nitrogen emissions are controlled in fluidized bed boiler?	2	6, 12	2
47.	922521105047	Sahanaa .R	Discuss the principle of operation of overfeed and underfeed stokers with help of simple diagrams. Which is preferred for high volatile coal and Why?	2	6, 12	2
48.	922521105048	Sanjai .S	Classify stokers and explain any one overfeed stoker with necessary diagram.	2	6, 12	2
49.	922521105049	Sheik Afrid .S. A	Explain the travelling grate stoker with help of neat sketch.	2	6, 12	2
50.	922521105050	Siva Surya .D	Classify pulverized mill used in modern power plant. Explain any one with neat sketch.	2	6, 12	2
51.	922521105051	Sri Sairam .V	Discuss the requirements of good oil burner. Explain different types of pulverizing fuel burners.	2	6, 12	2

52.	922521105052	Suganth .R	Why ash handling problem is more difficult than coal handling problems? Also explain requirements of good ash handling systems.	2	6, 12	2
53.	922521105053	Sujitha Devi .S	Draw schematic diagram of turbo jet engine and explain its working. List advantages and disadvantages of jet engine.	2	6, 12	2
54.	922521105054	Swetha .R	Explain basic working principle of rocket engine with neat sketch.	3	5, 9	3
55.	922521105055	Thennarasu. N	Explain diversity factors and its importance. Define depreciation and explain its significance.	3	5, 9	3
56.	922521105056	Vaishali .I	Write detailed notes on present status of power generation on India.	3	5, 9	3
57.	922521105057	Vaishnavi. G	Draw general lay of modern steam power plant label major components and state functions of each component.	3	5, 9	3
58.	922521105058	Venkatesh. D	Draw schematic diagram of turbo jet engine and explain its working. List advantages and disadvantages of jet engine.	3	5, 9	3
59.	922521105059	Vinoth Kumar. M	Draw a neat line diagram of a Benson boiler. State main difficulty experienced in the Lamont boiler and how it is prevented. Explain its advantages	3	5, 9	3
60.	922521105060	Vishwanaath .G	What are the different factors which affect the size of the bio gas plants?	3	5, 9	3
61.	922521105061	Yalini .K	Explain hill-climbing method of maximum power extraction in PV system in detail?	3	5, 9	3
62.	922521105062	Yuvaraj. M	Describe principle of working of reaction turbine? Briefly describe about different types reaction turbines?.	3	5, 9	3
63.	922521105301	Elavarasan D	Express heat lost from collector in terms of overall loss coefficient? Explain top loss coefficients in detail?	3	5, 9	3
64.	922521105302	Kuralarasan S	Explain the working of a Fuel cell and list the different types of Fuel cells with brief explanation of each type.	3	5, 9	3
65.	922521105303	Thangapandi M	Why is hybrid energy renewable? What are two goals of the hybrid electric system?	1	6, 12	2
66.	922521105304	Yuvanshankarraj C	What are the hybrid energy systems in India and explain?	1	6, 12	2

V.S.B. ENGINEERING COLLEGE
(An Autonomous Institution)
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Academic Year 2024-2025(ODD SEMESTER)

Class: IV Year/ VII Semester B.E., EEE
Name of the Subject: GE3791-Human Values and Ethics

ASSIGNMENT TOPICS

S. NO	Name of the Student	Assignment Topic	PO,PSO Mapping
1	Abinaya.M	Discuss the significance of equality in a democratic society. How has the concept evolved over time?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
2	Abirami.R	Analyze the role of liberty in fostering democratic ideals, citing examples from at least two historical movements.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
3	Ananthi.A	Define secular values and explain their significance in a modern democratic society.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
4	Angelin Nayaki.M	Evaluate the concept of freedom in the context of democratic governance. How do different cultures interpret freedom differently?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
5	Asif Ali.B	Explain the importance of justice in maintaining democratic stability. Provide examples from historical events.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
6	Bala Subramanian.K	Discuss the role of pluralism in modern democracies. How does pluralism contribute to a diverse society?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
7	Dhamodharan.S	Why is tolerance considered crucial for the sustenance of democratic values? Provide historical and contemporary examples.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
8	Dhanush.S	What is Human Values. Explain its importances and its types.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
9	Dhanush Kumar.E	Analyze how respect for all individuals contributes to a robust democratic framework. Use specific instances to illustrate your argument.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
10	Dhanusri.P	Critically examine the significance of freedom of expression in democratic societies. What are the challenges to upholding this freedom?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
11	Dharaneesh.P	Compare the mechanisms of citizen participation in governance during the French Revolution and the Indian Freedom Movement.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
12	Dharani.V	Discuss the impact of the French Revolution on the development of democratic principles worldwide.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
13	Dhivyadharshini.M	Evaluate the role of the American Independence movement in shaping democratic ideals beyond the United States.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
14	Dravid.A	Explain the roles of the ethics in scientific researches. Explain its importances.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3

15	Gokila.K	How did the principles of democracy influence the outcomes of the French Revolution, American Independence, and the Indian Freedom Movement?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
16	Gopi.K	Critically assess the enduring relevance of the democratic values emphasized in the French Revolution, American Independence, and the Indian Freedom Movement today.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
17	Hariharankarthick.S	Compare the strategies employed during the Indian Freedom Movement with other independence struggles globally.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
18	Haritha.D	Compare and contrast the principles of fraternity and solidarity as essential components of democratic societies.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
19	Jagadeesh.M	Discuss the interpretation of secularism in the Indian context. How does it differ from Western secularism?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
20	Jagatheeshan.P	How is secularism interpreted differently in various cultural and national contexts?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
21	Jaishree.J	Explain the concept of the disassociation of state from religion. Why is this important in a secular state?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
22	Karmugil.B	Analyze the historical development of secularism in India. What were the key milestones?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
23	Karthi.S	Evaluate the challenges and benefits of maintaining a secular state in a multi-religious society like India.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
24	Kathirvel.K	Discuss how the acceptance of all faiths is crucial for a secular society. Provide examples from Indian society.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
25	Kavin.M	What are the legal and constitutional provisions in India that promote secular values?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
26	Kavyadharshini.R. K	Discuss the impact of non-discriminatory practices on social harmony in a secular state.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
27	Kishor.V	How do secular values influence the relationship between different religious communities in India?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
28	Logeshwaran.S	Examine the role of the judiciary in upholding secular values in India. Provide relevant case studies.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
29	Manisha.T	Compare the secular policies of India with another secular country of your choice.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
30	Manjusri.S	Critically assess the challenges to secularism in India today. What are the major threats?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
31	Monisha.G	Propose measures that can be taken to strengthen secular values and non-discriminatory practices in India.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
32	Muthukumar.D	Define inductive and deductive thinking. Provide examples of how each method is used in scientific research.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3

33	Nagalan.N	Explain the process of proposing and testing a hypothesis in scientific research. Why is this process crucial for scientific progress?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
34	Nandha Kumar.T	Discuss the importance of an evidence-based approach in validating scientific facts. Provide examples from recent scientific studies.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
35	Naveen Subramaniyan.M	Analyze the role of skepticism in scientific inquiry. How does skepticism contribute to scientific advancements?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
36	Nijanthan.R	Define empiricism and discuss its significance in the development of scientific knowledge.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
37	Noushin Banu.M. I	Explain the concept of rationalism in science. How does rational thinking support scientific endeavors?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
38	Om Prakash.M	Discuss the importance of maintaining a scientific temper in everyday life. Provide examples of how this can be achieved.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
39	Padmaprabha.S. V	Compare and contrast inductive and deductive reasoning. In what situations is each method more appropriate?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
40	Padmini Priyadharshini.S	Examine the role of falsifiability in scientific hypotheses. Why is it essential for a hypothesis to be falsifiable?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
41	Parvathy.S	Discuss the relationship between skepticism and empiricism in scientific research. How do they complement each other?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
42	Pradeep Kumar.K	Analyze the role of education in promoting secular values in India.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
43	Raj Bharath.S.P	Evaluate the impact of rationalism on the development of modern science. Provide historical examples.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
44	Ramya.K	Analyze a scientific theory or discovery that was initially met with skepticism but later validated through evidence.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
45	Ramya.R	Explain how scientific temper can influence public policy and decision-making. Provide contemporary examples.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
46	Sabarish.C	Discuss the challenges of maintaining scientific integrity in the face of political or commercial pressures	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
47	Sahanaa.R	Propose strategies to promote scientific thinking and method in educational curricula. How can these strategies help in developing a scientifically literate society?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
48	Sanjai.S	Define ethical reasoning and discuss its application to contemporary social problems.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
49	Sheik Afrid.S. A	How can ethical frameworks be used to address gender bias in society? Provide examples.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
50	Siva Surya.D	Analyze the ethical implications of gender violence. What strategies can be employed to combat it?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3

51	Sri Sairam.V	Discuss the role of ethical reasoning in identifying and mitigating social discrimination.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
52	Suganth.R	How do constitutional protections in your country address social discrimination? Provide specific examples.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
53	Sujitha Devi.S	Evaluate the effectiveness of policies designed to reduce gender bias and violence.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
54	Swetha.R	What are some inclusive practices that can be implemented to promote gender equality in the workplace?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
55	Thennarasu.N	Discuss the ethical considerations in creating policies for social inclusion	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
56	Vaishali.I	How can ethical reasoning inform the development of anti-discrimination laws and policies?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
57	Vaishnavi.G	Analyze a case study where ethical reasoning was applied to resolve a social issue related to gender.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
58	Venkatesh.D	Discuss the intersection of ethical reasoning and human rights in addressing social discrimination.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
59	Vinoth Kumar.M	Evaluate the role of education in promoting ethical reasoning and reducing social biases.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
60	Vishwanaath.G	Define transparency and fairness in the context of scientific research. Why are these principles important?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
61	Yalini.K	How does transparency in scientific research impact public trust and societal progress?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
62	Yuvaraj.M	Evaluate the ethical implications of withholding scientific data or results from the public.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
63	Elavarasan.D	Analyze the impact of scientific inventions on society. Provide examples of inventions that have significantly improved human life.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
64	Kuralarasan.S	Analyze the role of international collaborations in promoting transparency and fairness in scientific research.	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
65	Thangapandi.M	Discuss the impact of scientific misconduct on society and the scientific community. Provide examples of notable cases	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3
66	Yuvanshankar raja.C	How can regulations ensure the fair application of scientific inventions for the betterment of society?	PO1,PO5,PO6,PO7,PO8,PO10, PO12,PSO3

V.S.B. ENGINEERING COLLEGE, KARUR
(AN AUTONOMOUS INSTITUTION)
Department of Electrical and Electronics Engineering

Academic Year: 2024-2025 (ODD Semester)
MG8591-PRINCIPLE OF MANAGEMENT
ASSIGNMENT QUESTIONS

Sl. No.	Reg No.	Name of the Student	Assignment Topics	CO	PO	PSO
1	922521105001	ABINAYA. M	How are opportunities, constraints, and demands related to stress? Give an example of each.	1	1,9,10,12	1,3
2	922521105002	ABIRAMI .R	Planned change is often thought to be the best approach to take in organizations. Can unplanned change ever be effective? Explain.	1	1,9,10,12	1,3
3	922521105003	ANANTHI. A	Describe the structural, cultural, and human resources variables that are necessary for innovation.	1	1,3,4,5,6,9,12	2,3
4	922521105004	ANGELIN NAYAKI .M	Describe the eight steps in the decision-making process.	1	1,3,4,5,6,9,12	2,3
5	922521105005	ASIF ALI. B	Explain the four ways managers make decisions.	1	1,3,4,5,6,9,12	2,3
6	922521105006	BALA SUBRAMANIAN. K	Compare and contrast the four ways managers make decisions.	2	1,9,10,12	1,3
7	922521105007	DHAMODHARAN .S	How might an organization's culture influence the way managers make decisions?	2	1,3,4,5,6,11,12	2,3
8	922521105008	DHANUSH .S	Explain the two types of problems and decisions. Contrast the three decision-making conditions.	2	1,3,4,5,6,12	2,3
9	922521105009	DHANUSH KUMAR .E	How can managers blend the guidelines for making effective decisions in today's world with the rationality and bounded rationality models of decision making, or can they? Explain.	3	1,7,9,12	1,3
10	922521105010	DHANUSRI. P	Is there a difference between wrong decisions and bad decisions? Why do good managers sometimes make	5	1,7,9,12	2,3

			wrong decisions? Bad decisions? How can managers improve their decision-making skills?			
11	922521105011	DHARANEESH .P	Explain what studies have shown about the relationship between planning and performance.	3	1,7 ,9,12	2,3
12	922521105012	DHARANI. V	Discuss the contingency factors that affect planning.	4	1,3,4,5,6,9	2,3
13	922521105013	DHIVYADHARSHINI. M	Describe how managers can effectively plan in today's dynamic environment.	5	1,3,4,6,12	2,3
14	922521105014	DRAVID .A	Will planning become more or less important to managers in the future? Why?	4	1,3,4,5,6,9,12	2,3
15	922521105015	GOKILA .K	Planning is so crucial, why do some managers choose not to do it? What would you tell these managers?	5	1,3,4,5,6,9,12	2,3
16	922521105016	GOPI. K	Explain how planning involves making decisions today that will have an impact later.	4	1,3,4,5,6,9	2,3
17	922521105017	HARIHARANKARTHICK.S	What types of planning do you do in your personal life? Describe these plans in terms of being (a) strategic or operational, (b) short term or long term, and (c) specific or directional.	1	1,3,4,5,6,9,12	2,3
18	922521105018	HARITHA.D	Does the way that contemporary organizations are structured appeal to you? Why or why not?	1	1,3,4,5,6,12	2,3
19	922521105019	JAGADEESH. M	In what ways would the Life is good managers (corporate and retail store) have to deal with the challenges of customer service, innovation, and sustainability? Be specific in your description.	1	1,3,4,5,6,9,12	2,3
20	922521105020	JAGATHEESHAN.P	Explain why studying management history is important.	4	1,3,4,6,9,11	2,3
21	922521105021	JAISHREE. J	How do societal trends influence the practice of management? What are the implications for someone studying management?	2	1,3,4,6,12	2,3
22	922521105022	KARMUGIL .B	What kind of workplace would Henri Fayol create? How about Mary Parker Follett? How about Frederick W. Taylor?	3	1,3,4,5,6,9,12	2,3
23	922521105023	KARTHI S	How do systems theory and the contingency approach make managers better at what they do?	4	1,3,4,5,6,9,12	2,3

24	922521105024	KATHIRVEL. K	Why were the Hawthorne Studies so critical to management history?	3	1,3,4,6,12	2,3
25	922521105025	KAVIN .M	Describe the important contributions made by the classical theorists.	1	1,3,4,5,6,12	2,3
26	922521105026	KAVYADHARSHINI. R. K	Contrast the actions of managers according to the omnipotent and symbolic views.	5	1,3,4,6,12	2,3
27	922521105027	KISHOR. V	Describe the constraints and challenges facing managers in today's external environment.	5	1,2,3,4,5,6,9,12	2,3
28	922521105028	LOGESHWARAN .S	Discuss the characteristics and importance of Organizational culture.	5	1,3,4,6,9	2,3
29	922521105029	MANISHA. T	Describe current issues in organizational culture.	3	1,3,4,6,9	2,3
30	922521105030	MANJUSRI. S	Describe the two perspectives on how much impact managers have on an organization's success or failure.	5	1,3,4,5,6,9,12	2,3
31	922521105031	MONISHA .G	Why is it important for managers to understand the external environmental components?	5	1,3,4,5,6,9,12	2,3
32	922521105032	MUTHUKUMAR. D	Describe an effective culture for (a) a relatively stable environment and (b) a dynamic environment. Explain your choices.	5	1,3,4,5,6,9,12	2,3
33	922521105033	NAGALAN. N	"Businesses are built on relationships." What do you think this statement means? What are the implications for managing the external Environment?	4	1,3,4,5,6,12	2,3
34	922521105034	NANDHA KUMAR. T	How would a first-line manager's job differ in these two organizations? How about a top-level manager's job?	5	1,3,4,6,9,12	2,3
35	922521105035	NAVEEN SUBRAMANIYAN .M	Describe the issues associated with each of the types of workforce diversity.	5	1,3,4,6,12	2,3
36	922521105036	NIJANTHAN. R	Describe various workplace diversity management initiatives.	3	1,3,4,5,6,9,12	2,3
37	922521105037	NOUSHIN BANU .M. I	Discuss what it means to be socially responsible and what factors influence that decision.	4	1,3,4,6,9	2,3
38	922521105038	OM PRAKASH .M	Explain green management and how organizations can go green.	5	1,3,4,5,6,9	2,3
39	922521105039	PADMAPRABHA .S. V	Discuss the factors that lead to ethical and unethical	4	1,3,4,5,6,9,12	2,3

			behavior.			
40	922521105040	PADMINI PRIYADHARSHINI. S	Describe management's role in encouraging ethical behavior.	4	1,3,4,5,6,9,12	2,3
41	922521105041	PARVATHY .S	Discuss current social responsibility and ethics issues.	2	1,3,4,5,6,9,12	2,3
42	922521105042	PRADEEP KUMAR .K	Do you think values-based management is just a "do gooder" ploy? Explain your answer.	1	1,3,4,5,6,12	2,3
43	922521105043	RAJ BHARATH .S. P	Differentiate between social obligation, social responsiveness, and social responsibility	1	1,3,4,5,6,9,12	2,3
44	922521105044	RAMYA.K	Describe the characteristics and behaviors of someone you consider to be an ethical person. How could the types of decisions and actions this person engages in be encouraged in a workplace?	5	1,3,4,5,6,9,12	2,3
45	922521105045	RAMYA. R	Explain the ethical and social responsibility issues facing managers today.	4	1,3,4,6,12	2,3
46	922521105046	SABARISH .C	Compare and contrast views on the change process.	2	1,3,4,5,6,9,12	2,3
47	922521105047	SAHANAA .R	Classify types of organizational change.	1	1,3,4,5,6,9,12	2,3
48	922521105048	SANJAI .S	Explain how to manage resistance to change.	3	1,7,5,9,10	1,3
49	922521105049	SHEIK AFRID .S. A	Discuss contemporary issues in managing change.	5	1,9,10,12	1,3
50	922521105050	SIVA SURYA .D	Describe techniques for stimulating innovation.	5	1,3,4,5,6,9,12	2,3
51	922521105051	SRI SAIRAM .V	Describe the important contributions made by the classical theorists.	1	1,9,10,12	1,3
52	922521105052	SUGANTH .R	Contrast the actions of managers according to the omnipotent and symbolic views .	1	1,9,10,12	1,3
53	922521105053	SUJITHA DEVI .S	How would a first-line manager's job differ in these two organizations? How about a top-level manager's job?	1	1,3,4,5,6,9,12	2,3
54	922521105054	SWETHA .R	Discuss what it means to be socially responsible and what factors influence that decision.	1	1,3,4,5,6,9,12	2,3
55	922521105055	THENNARASU. N	Explain green management and how organizations can go green.	1	1,3,4,5,6,9,12	2,3
56	922521105056	VAISHALI .I	Explain the four ways managers make decisions.	2	1,9,10,12	1,3

57	922521105057	VAISHNAVI. G	Compare and contrast the four ways managers make decisions.	2	1,3,4,5,6,11,12	2,3
58	922521105058	VENKATESH. D	How might an organization's culture influence the way managers make decisions?	2	1,3,4,5,6,12	2,3
59	922521105059	VINOTH KUMAR. M	Explain the two types of problems and decisions. Contrast the three decision-making conditions.	3	1,7,9,12	1,3
60	922521105060	VISHWANAATH .G	How can managers blend the guidelines for making effective decisions in today's world with the rationality and bounded rationality models of decision making, or can they? Explain.	5	1,7,9,12	2,3
61	922521105061	YALINI .K	Is there a difference between wrong decisions and bad decisions? Why do good managers sometimes make wrong decisions? Bad decisions? How can managers improve their decision-making skills?	3	1,7 ,9,12	2,3
62	922521105062	YUVARAJ. M	Explain what studies have shown about the relationship between planning and performance.	4	1,3,4,5,6,9	2,3
63	922521105301	ELAVARASAN D	Discuss the contingency factors that affect planning.	5	1,3,4,6,12	2,3
64	922521105302	KURALARASAN S	Describe how managers can effectively plan in today's dynamic environment.	4	1,3,4,5,6,9,12	2,3
65	922521105303	THANGAPANDI M	Will planning become more or less important to managers in the future? Why?	5	1,3,4,5,6,9,12	2,3
66	922521105304	YUVANSHANKARRAJA C	Planning is so crucial, why do some managers choose not to do it? What would you tell these managers?	4	1,3,4,5,6,9	2,3

VSB ENGINEERING COLLEGE KARUR – 639 111

(An Autonomous Institution)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Academic Year: 2023 -2024 (ODD Semester)

Class: IV Year/ VII Semester & B.E. Electrical and Electronics Engineering

Subject code / Name: **OCS352/ IOT Concepts and Applications**

Name of Faculty Member: Mr.A.Bharathidhasan

ASSIGNMENT TOPICS

QN. NO.	REGISTER NUMBER	NAME OF THE STUDENT	ASSIGNMENT TOPICS	PO & PSO Mapping
1	922521105001	ABINAYA. M	Explain the concept of the Internet of Things (IoT). How does it differ from traditional internet concepts?	PO1, PO5, PO3, PO5, PSO1, PSO2
2	922521105002	ABIRAMI .R	What are the key components of an IoT system? Provide examples of each component.	PO1, PO2, PO3, PSO1, PSO2
3	922521105003	ANANTHI. A	Describe the typical architecture of an IoT system. How do the different layers interact with each other?	PO1, PO6,PO10, PSO1
4	922521105004	ANGELIN NAYAKI .M	Discuss the role of sensors and actuators in an IoT system. Provide examples of real-world applications for each.	PO2, PO9, PO11, PSO2
5	922521105005	ASIF ALI. B	What are some common communication protocols used in IoT? Compare and contrast MQTT, CoAP, and HTTP in the context of IoT	PO2, PO5, PO9, PSO2
6	922521105006	BALA SUBRAMANIAN. K	Explain the importance of data interoperability in IoT and how communication protocols facilitate this.	PO11, PO6, PO3, PSO1
7	922521105007	DHAMODHARAN .S	Describe the concept of a smart home. What are some common devices and technologies used in smart homes?	PO6, PO9, PO11, PSO3
8	922521105008	DHANUSH .S	Choose a smart home device (e.g., smart thermostat, smart lighting) and explain its working principle, key features, and benefits.	PO1, PO5, PO3, PO5, PSO1, PSO2
9	922521105009	DHANUSH KUMAR .E	What is Industrial IoT? How does it differ from consumer IoT?	PO1, PO2, PO3, PSO1, PSO2
10	922521105010	DHANUSRI. P	Discuss the potential benefits and challenges of implementing IoT in industrial settings. Provide examples of IIoT applications.	PO1, PO6,PO10, PSO1
11	922521105011	DHARANEESH .P	How is IoT being used in the healthcare industry? Provide examples of IoT applications in healthcare	PO2, PO9, PO11, PSO2
12	922521105012	DHARANI. V	**W**hat are the potential benefits and risks associated with the use of IoT in healthcare?	PO2, PO5, PO9, PSO2
13	922521105013	DHIVYADHARSHINI. M	List and describe different types of sensors used in IoT applications.	PO11, PO6, PO3, PSO1

			Provide examples of where each type might be used	
14	922521105014	DRAVID .A	Explain the role of microcontrollers and single-board computers in IoT systems. Compare Arduino and Raspberry Pi for IoT projects.	PO6, PO9, PO11, PSO3
15	922521105015	GOKILA .K	What are some common IoT platforms and development environments? Discuss their features and use cases.	PO2, PO5, PO9, PSO2
16	922521105016	GOPI. K	Explain the concept of edge computing in IoT. How does it improve the performance and efficiency of IoT systems?	PO11, PO6, PO3, PSO1
17	922521105017	HARIHARANKARTHICK.S	Discuss the major security concerns in IoT systems. How can these concerns be mitigated?	PO1, PO2, PO3, PSO1, PSO2
18	922521105018	HARITHA.D	Explain the concept of data privacy in the context of IoT. What measures can be taken to protect user data in IoT applications?	PO1, PO6, PO10, PSO1
19	922521105019	JAGADEESH. M	Discuss the emerging trends and future prospects of IoT. What advancements can we expect in the next 5-10 years?	PO1, PO5, PO3, PO5, PSO1, PSO2
20	922521105020	JAGATHEESHAN.P	How do you think IoT will impact various industries and everyday life in the future? Provide examples to support your arguments..	PO1, PO2, PO3, PSO1, PSO2
21	922521105021	JAISHREE. J	What are sensors and actuators? Provide examples of each and explain their roles in an IoT system.	PO1, PO6,PO10, PSO1
22	922521105022	KARMUGIL .B	Discuss various communication protocols used in IoT (e.g., Wi-Fi, Bluetooth, Zigbee, LoRaWAN). Compare their advantages and disadvantages	PO2, PO9, PO11, PSO2
23	922521105023	KARTHI S	Explain how data is processed in an IoT system, including edge computing and cloud computing.	PO2, PO5, PO9, PSO2
24	922521105024	KATHIRVEL. K	What are IoT platforms? Give examples of popular IoT platforms and their key features.	PO11, PO6, PO3, PSO1
25	922521105025	KAVIN .M	What are IoT platforms? Give examples of popular IoT platforms and their key features.	PO11, PO6, PO3, PSO1
26	922521105026	KAVYADHARSHINI. R. K	Discuss the main security challenges in IoT and suggest best practices to mitigate these risks.	PO6, PO9, PO11, PSO3
27	922521105027	KISHOR. V	Design a basic IoT system for a smart home. Describe the components you would use and their interactions.	PO1, PO6,PO10, PSO1
28	922521105028	LOGESHWARAN .S	Explain how IoT can be used to improve healthcare. Provide examples of IoT devices used in healthcare and their benefits.	PO2, PO9, PO11, PSO2
29	922521105029	MANISHA. T	Describe the concept of IIoT. How does it differ from consumer IoT? Discuss its applications in manufacturing and industry.	PO1, PO6,PO10, PSO1
30	922521105030	MANJUSRI. S	What is an open IoT platform? Why	PO2, PO9, PO11, PSO2

			are open platforms important for the development and deployment of IoT solutions?	
31	922521105031	MONISHA .G	What factors should be considered when selecting an IoT platform for a specific application? Provide a comparison table of key features for at least three open IoT platforms.	PO2, PO5, PO9, PSO2
32	922521105032	MUTHUKUMAR. D	Choose a specific open IoT platform and discuss a real-world application where it has been successfully implemented. Analyze the reasons for its selection and the outcomes achieved.	PO11, PO6, PO3, PSO1
33	922521105033	NAGALAN. N	Explain the challenges and solutions related to interoperability and integration in open IoT platforms.	PO1, PO6,PO10, PSO1
34	922521105034	NANDHA KUMAR. T	What are the common programming languages used in IoT development? Discuss the advantages and disadvantages of at least three languages.	PO2, PO9, PO11, PSO2
35	922521105035	NAVEEN SUBRAMANIYAN .M	Explain the role of embedded systems in IoT. Describe the process of programming a microcontroller for an IoT application.	PO1, PO5, PO3, PO5, PSO1, PSO2
36	922521105036	NIJANTHAN. R	Discuss the techniques and best practices for data handling in IoT applications, including data collection, storage, and processing.	PO1, PO2, PO3,PSO1, PSO2
37	922521105037	NOUSHIN BANU .M. I	Write a simple program to read data from a sensor and send it to a cloud platform. Provide a step-by-step guide and the code.	PO1, PO6,PO10, PSO1
38	922521105038	OM PRAKASH .M	Discuss the role of edge computing in IoT. Develop a simple edge computing application and provide the code and explanation.	PO2, PO9, PO11, PSO2
39	922521105039	PADMAPRABHA .S. V	Explore the use of blockchain technology in IoT for secure data transactions. Develop a simple IoT application that incorporates blockchain and provide the code and explanation.	PO2, PO5, PO9, PSO2
40	922521105040	PADMINI PRIYADHARSHINI. S	What are communication protocols in IoT? Why are they crucial for the functioning of IoT systems?	PO11, PO6, PO3, PSO1
41	922521105041	PARVATHY .S	Analyze a real-world IoT implementation. Identify the communication protocols used and justify their selection.	PO6, PO9, PO11, PSO3
42	922521105042	PRADEEP KUMAR .K	What are some common security protocols used in IoT? How do they ensure the security and privacy of IoT data?	PO1, PO5, PO3, PO5, PSO1, PSO2
43	922521105043	RAJ BHARATH .S. P	Define IoT applications and explain their significance in various industries.	PO1, PO2, PO3,PSO1, PSO2
44	922521105044	RAMYA.K	Discuss the role of IoT in developing smart cities. Provide examples of IoT applications in urban planning, waste management, and transportation.	PO1, PO6,PO10, PSO1

45	922521105045	RAMYA. R	Explain how IoT is transforming healthcare. Discuss applications such as remote patient monitoring, smart wearables, and medical device integration.	PO2, PO9, PO11, PSO2
46	922521105046	SABARISH .C	Describe how IoT is used in agriculture to improve crop yield and farming efficiency. Provide examples of IoT applications in precision farming and livestock monitoring.	PO2, PO5, PO9, PSO2
47	922521105047	SAHANAA .R	What is Industrial IoT? Discuss its applications in manufacturing, supply chain management, and predictive maintenance.	PO11, PO6, PO3, PSO1
48	922521105048	SANJAI .S	Discuss the importance of IoT in environmental monitoring. Provide examples of IoT applications for air quality monitoring, water quality monitoring, and wildlife tracking.	PO6, PO9, PO11, PSO3
49	922521105049	SHEIK AFRID .S. A	Describe the key features of IPv6 that make it suitable for IoT applications.	PO2, PO5, PO9, PSO2
50	922521105050	SIVA SURYA .D	Discuss the key features of 6LoWPAN, such as header compression, fragmentation, and mesh addressing.	PO11, PO6, PO3, PSO1
51	922521105051	SRI SAIRAM .V	Describe the protocol stack used in 6LoWPAN. How does it interact with other layers in the IoT protocol stack?	PO1, PO2, PO3,PSO1, PSO2
52	922521105052	SUGANTH .R	Describe the key components and architecture of a 6LoWPAN network.	PO1, PO6,PO10, PSO1
53	922521105053	SUJITHA DEVI .S	What are sensors in the context of IoT? Describe the role of sensors in an IoT system and provide examples of different types of sensors used in IoT applications.	PO1, PO6,PO10, PSO1
54	922521105054	SWETHA .R	Describe actuators and their role in IoT systems. Give examples of how actuators are used in various IoT applications	PO2, PO9, PO11, PSO2
55	922521105055	THENNARASU. N	Choose a specific sensor (e.g., temperature sensor) and explain how it works. Include a discussion on the type of data it collects and how it can be integrated into an IoT system.	PO2, PO5, PO9, PSO2
56	922521105056	VAISHALI .I	Discuss the various communication protocols used in IoT. Compare and contrast at least three protocols such as MQTT, CoAP, and HTTP.	PO11, PO6, PO3, PSO1
57	922521105057	VAISHNAVI. G	What is LPWAN, and why is it important for IoT? Describe the characteristics and use cases of Low Power Wide Area Networks in IoT	PO6, PO9, PO11, PSO3
58	922521105058	VENKATESH. D	Explain the role of cloud computing in IoT**.** Discuss how cloud services are used to store, process, and	PO1, PO5, PO3, PO5, PSO1, PSO2

			analyze data collected from IoT devices.	
59	922521105059	VINOTH KUMAR. M	Describe the process of data collection and preprocessing in IoT. Explain the challenges associated with data collection in IoT systems.	PO1, PO2, PO3,PSO1, PSO2
60	922521105060	VISHWANAATH .G	What is edge computing, and how does it benefit IoT applications? Provide examples of scenarios where edge computing is advantageous.	PO1, PO6,PO10, PSO1
61	922521105061	YALINI .K	Discuss the role of machine learning and AI in IoT. Provide examples of how machine learning algorithms can be applied to IoT data for predictive maintenance or anomaly detection	PO1, PO6,PO10, PSO1
62	922521105062	YUVARAJ. M	What are the major security challenges in IoT? Discuss issues such as data privacy, device authentication, and network security.	PO2, PO9, PO11, PSO2
63	922521105301	ELAVARASAN D	Explain the concept of end-to-end security in IoT. Provide examples of how end-to-end security can be implemented in an IoT ecosystem.	PO2, PO5, PO9, PSO2
64	922521105302	KURALARASAN S	Choose an IoT application in healthcare and explain its components and benefits. Discuss the specific sensors, connectivity, and data analysis methods used in this application.	PO11, PO6, PO3, PSO1
65	922521105303	THANGAPANDI M	Discuss the role of IoT in industrial automation. Explain how IoT technologies are used to enhance efficiency and productivity in manufacturing processes.	PO6, PO9, PO11, PSO3
66	922521105304	YUVAN SHANKAR RAJA C	Describe how IoT is transforming smart cities. Provide examples of IoT applications in traffic management, waste management, and public safety.	PO1, PO5, PO3, PO5, PSO1, PSO2

Faculty In-charge **HOD**