



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(A Unit of Alva's Education Foundation)

Shobhavana Campus, M/Jnr-574225, Moodbidri, D.K

Phone: 08258-262725, Fax: 08258-262726

Affiliated to VTU Belagavi and Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka

ATTENDANCE BOOK

Academic Year : 2023-24
Semester : VI Section A
Period of the Semester : From 29/4/2024 to 26/7/2024
Subject with Code : Railway, Harbours, Tunneling & Airport
Name of the Faculty : Santhosh K
Department : Civil Engineering

VISION OF THE INSTITUTE

"Transformative education by pursuing excellence in Engineering and Management through enhancing skills to meet the evolving needs of the community"

MISSION OF THE INSTITUTE

- To bestow quality technical education to imbibe knowledge, creativity and ethos to students community.
- To inculcate the best engineering practices through transformative education.
- To develop a knowledgeable individual for a dynamic industrial scenario.
- To inculcate research, entrepreneurial skills and human values in order to cater the needs of the society.

VISION OF THE DEPARTMENT

- ✓ To become a leader in the field of civil engineering by imparting quality education in developing highly competent manpower and promote research to meet the current & future challenges in civil Engg. field

MISSION OF THE DEPARTMENT

- To impart knowledge by creating conducive teaching learning environment
- To produce civil Engineer of high caliber technical skills & ethical values, to serve the society
- To promote innovation in the minds of future engineers. to face the challenges

COURSE OUTCOMES

CO1	Acquires Capability of choosing alignment & also design geometric aspects of railway system, runway & taxiway
CO2	Suggest & estimate the material quantity required for laying a railway track & also will be able to determine hauling capacity of a locomotive
CO3	Develop & estimate the material layout & plan of air port, harbor, dock & will be able relate the gained knowledge to identify required type of visual & / or navigational aids for the same
CO4	Apply the knowledge gained to conduct surveying & understand the tunnelling activities.

[illegible]

AJET	Lesson Plan & Execution			Format No.	ACD 08	
				Issue No.	01	
				Rev. No.	00	
Name of the faculty			Santhosh. k			
Semester and Section			6th semester			
Date of Commencement			29/4/2024.			
Last Working Day of the Semester			✓ 26/7/2024			
Source Materials List			Author.			
1. A Course in Railway Engg.			Saxena and Subhas C			
2. Railway Engg.			Satish chandra			
3. Airport planning.			S. K Khanna.			
4. Harbour Engineering.			Bindra. S. K			
5.						
Subject Name ✓ Railway harbours, Tunneling & Airport						
Period	Plan			Execution		
	Date	Topics to be covered	Source Material needed	Topics Covered	Date	Source Material Referred
1	29/4	<u>module 1</u> Significance of Road, Rail, Air and water	1 L2	8 Covered.	30/4	1
2	30/4	Elements of Permanent way Rails	1 L2	Covered.	2/5	1
3	03/5	Ballast Sleepers	1 L2	Rails classification Functions	7/5	1
4	04/5	rail fixture and fastening.	1 L2	Ballast classification	01/5	1

Period	Plan			Execution		
	Date	Topics to be covered	Source Material needed	Topics Covered	Date	Source Material Referred
5	7/5	Railway alignment Survey.	1 & 2	Slope ^{Slope} Ballast ^{function.}	13/5	1
6	8/5	Soil stability analysis	1 & 2	Slope pos classification	14/5	1
7	11/5	Geometric design	1 & 2	sleepers Ballast.	16/5	1
8	13/5	Geometric Design.	1 & 2	Ballast function & classification	17/5	1
9	14/5	^{module-2} Earthwork Stabilization	1 & 2	geomorphical Design.	20/5	1
10	16/5	calculation of material. to track	1 & 2	Geomorphical design	21/5	1
11	17/5	Construction & maintenance of track	1 & 2	Geometric design.	22/5	1
12	20/5	Railway Station & yard	1 & 2	Points & crossing.	24/5	1
13	21/5	Passenger amenities.	1 & 2	Points & crossing.	27/5	1
14	24/5	urban Rail Infrae structure	1 & 2	Earthwork Stabilization	29/5	+
15	27/5	mono railway	1 & 2	1 st IA-Test	04/6	7
16	28/5	under ground railway	1 & 2	Calculation of material required.	5/6	1
17	30/5	^{module-3} Definition of basic terms	4	calculation of materials	10/6	1

Period	Plan			Execution		
	Date	Topics to be covered	Source Material needed	Topics Covered	Date	Source Material Referred
17	3/5	Planning and Design of Harbours	4	Construction & maintenance of track	13/6	1
18	3/6	Requirements classification	4	Construction maintenance of track	18/6	1
20	5/6	Location & Design Harbour layout	4	modern method of construction	20/6	1
21	8/6	terminal facilities Coastal structures	4	Railway station yard.	21/6	1
22	10/6	Inland water transportation.	4	passenger terminal urban rail. for metro.	24/6	1
23	12/6	Tunnelling Size & shape.	4	mono & underground railway.	25/6	1
24	14/6	methods of Tunneling.	4	Definition of Basic terms. Planning & Design.	27/6	1
25	18/6	mode - 4 Air transport	3	Requirements. classification of Harbours.	02/7	1
26	20/6	classification & characteristics	3	Harbour layout Coastal structures inland water	02/7	1
27	22/6	wind rose Diagram runway length	3	transportation air port characteristics	04/7	1
28	24/6	Problems on basic & actual length	3	air port classification & Planning.	5/7	1
29	26/6	basic components layout characteristics	3	layout and its components	9/7	1
30	28/6	Economic characteristics, catchment area.	3	criteria for air port selection of site.	11/7	1

Period	Plan			Execution		
	Date	Topics to be covered	Source Material needed	Topics Covered	Date	Source Material Refered
31	26/7	Design of airport zone parking facility	3	Parking & circulation Area.	15/7	1
32	4/7	Runway and Taxi way.	3	Runway Design wind Rose Diagram	15/7	1
33	6/7	module-5 Runway Design	3	Runway length Numericals.	16/7	1
34	8/7	wind rose Diagram Runway length	3	Geometric Design of Runway.	16/7	1
35	10/7	Geometric Design.	3	Configuration & Pavement Principle.	18/7	1
36	12/7	Configuration & Pavement Design.	3	Taxiway Elements.	19/7	1
37	15/7	Airport zone	3	Airport zone Facility & Service.	22/7	1
38	18/7	Taxiway Design.	3	Runway & Taxiway marking & lighting.	23/7	1
39	20/7	Runway Runway Design.	3	Tunnelling size & shape, tunnel design.	25/7	1
40	22/7	marking & lighting.	3	Drainage in tunneling methods in soil.	29/7	1
41	25/7			Tunneling tunnel drainage.	30/7	1
				tunneling method Tunnel Ventilation.	31/7	1