

<b>RGPV (DIPLOMA WING) BHOPAL</b>		<b>OBE CURRICULUM FOR THE COURSE</b>		<b>FORMAT-3</b>	<b>Sheet No. 1/3</b>
<b>Branch</b>	<b>Cement Technology (C01)</b>			<b>Semester</b>	<b>V</b>
<b>Course Code</b>	<b>506</b>	<b>Course Name</b>	<b>In plant Training</b>		
<b>Course Outcome 1</b>	Student will be able to bridge the wide gap between the classroom and industrial environment and reveal the industrial environment.			<b>Teach Hrs.</b>	<b>Marks</b>
<b>Learning Outcome 1</b>	Student will be able to relate the classroom learning to the practical experiences in the plant and understand the industrial environment.			10	10
<b>Contents</b>	<p>Industrial training of the students is essential to bridge the wide gap between the classroom and industrial environment. This will enrich their practical learning.</p> <ul style="list-style-type: none"> <li>• Industrial training is an exposure of students to the real time environment of an industrial sector.</li> <li>• Student will be able to gain real time knowledge of observation and job execution in industrial ambiance.</li> <li>• Set a plan for the training so that the objective of the training and the expectations of the polytechnic system will be fulfilled.</li> <li>• By the proper planning the training will be most beneficial.</li> <li>• Spelling out the objectives of the industrial training in behavioral terms.</li> <li>• Students have to make individual plans (week wise/ day wise) to undertake industrial training.</li> <li>• During training make a weekly work plan.</li> <li>• In weekly work plan write down the main objectives of weekly studies.</li> <li>• Every weekly study objective should be signed and sealed.</li> </ul>				
<b>Method of Assessment</b>	External: Report submission* and viva voce.				
<b>Learning Outcome 2</b>	Student will be able to Identify the role of Cement Technologist/Production Engineers in cement industry, current industrial scenario, advancement and future development in the cement plant.			10	10
<b>Contents</b>	<ul style="list-style-type: none"> <li>• To develop their on-ground work skills, communication skill, managerial skills and work ethics from industrial culture.</li> <li>• Prepare a report on type of Industry, Industrial developments.</li> <li>• Importance of cement industry, Organizational Structure, Work of different departments.</li> <li>• Field and CCR work management.</li> </ul>				

	<ul style="list-style-type: none"> <li>• Advancement in cement industry.</li> <li>• Current status of India in cement manufacturing.</li> <li>• During training students will maintain a daily diary of the interactions/visits/learnings. Main purpose of daily diary is to inculcate the habit of systematic recording of learning experiences and events etc.</li> <li>• Counter sign in the daily diary at the end of the week and offer the comments from the coordinator/reporting officer about the initiative and participative attitude of trainee during training.</li> <li>• The proforma to maintain daily diary will be provided by the institute.</li> </ul>		
<b>Method of Assessment</b>	External: Report submission* and viva voce.		
<b>Course Outcome 2</b>	Student will be able to elaborate the cement manufacturing process from mining to packaging.	Teach Hrs.	Marks
<b>Learning Outcome 1</b>	Student will be able to describe the cement manufacturing process from mining to grinding of raw material.	10	10
<b>Contents</b>	<p>Make notes of the sections given below and write in details about the major equipments / machines and instruments used in cement industries in different unit operations along with specifications.</p> <p><b>Preparation of Raw materials: -</b></p> <ul style="list-style-type: none"> <li>• The process of survey of limestone mines.</li> <li>• Drilling and blasting, exploration of limestone.</li> <li>• Crusher section, details about the type of crusher used in plant.</li> <li>• Pre homogenization section, making of piles, stacking and reclaiming.</li> <li>• Transportation of crushed lime stone.</li> <li>• Storage of crushed raw materials in hoppers.</li> <li>• Weigh feeder, rotary gate feeder, triple gate feeder.</li> <li>• Grinding in VRM, classifier, cyclone separator.</li> <li>• Dust collection in bag dust collector.</li> <li>• Transportation of the fine material to the CF silo.</li> <li>• Safety, health, environment and Quality management system.</li> </ul>		
<b>Method of Assessment</b>	Internal: Presentation and viva voce.		
<b>Learning Outcome 2</b>	Student will be able to explain the cement manufacturing process from CF silo to packing plant and quality control lab.	10	15
<b>Contents</b>	<p>Make notes of the sections given below and write in details about the major equipments / machines and instruments used in cement industries in different unit operations along with specifications.</p> <p><b>Pyro processing and clinker formation: -</b></p>		

	<ul style="list-style-type: none"> <li>• Homogenization in CF silo.</li> <li>• Preheaters, Calciner (SLC, ILC).</li> <li>• Kiln (primary reactions of clinker burning, material and air flow).</li> <li>• Types of burners recently used in cement plant.</li> <li>• Cooler, DDPC, Primary air fans.</li> <li>• Storage of clinker and gypsum.</li> <li>• Grinding of clinker in cement mill (VRM/Ball mill).</li> <li>• Storage of cement in cement silo.</li> <li>• Packing of cement.</li> <li>• Dispatch of cement.</li> </ul> <p><b>Quality control lab: -</b></p> <ul style="list-style-type: none"> <li>• Gain firsthand knowledge on tests conducted to maintain quality of cement.</li> <li>• To visit QC lab of the plant and study the various testing equipments / machines and methods used.</li> <li>• To observe and learn to conduct the various quality control test in the lab and prepare write up for each test separately.</li> <li>• Student will find out the areas himself needing quality control in cement plant.</li> </ul>			
<b>Method of Assessment</b>	Internal: Presentation and viva voce.			
<b>Course Outcome 3</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Prepare a report about the work experience in the industry and demonstrate through a Power-Point Presentation on learning from industrial training. (20-30) minutes.</td> <td style="width: 10%; text-align: center;">Teach Hrs.</td> <td style="width: 10%; text-align: center;">Marks</td> </tr> </table>	Prepare a report about the work experience in the industry and demonstrate through a Power-Point Presentation on learning from industrial training. (20-30) minutes.	Teach Hrs.	Marks
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<b>Learning Outcome 1</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Prepare a report about the work experience in industry.</td> <td style="width: 10%; text-align: center;">10</td> <td style="width: 10%; text-align: center;">15</td> </tr> </table>	Prepare a report about the work experience in industry.	10	15
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<b>Contents</b>	<p>Prepare a detailed report according to the guidance of faculty in-charge of industrial training in the format mentioned below.</p> <p><b>Arrangement of contents:</b></p> <ul style="list-style-type: none"> <li>• Cover page: (use required format if provided by faculty).</li> <li>• Inner Title Page (Same as cover page)</li> <li>• Certificate by Company/Industry/Institute</li> <li>• Acknowledgement</li> <li>• About Company/industry/institute</li> <li>• Table of Contents</li> <li>• List of Tables</li> <li>• List of Figures</li> <li>• Abbreviations and Nomenclature (If any)</li> <li>• Index: Index of each section titles.</li> </ul>			

	<ul style="list-style-type: none"> <li>• Abstract: Introductory information about the training report. Maximum one page.</li> <li>• Chapters: Your work and experiences.</li> <li>• Conclusion: Summary of experiences.</li> <li>• References</li> <li>• Data Sheet (If any)</li> <li>• Appendix: Additional materials if necessary.</li> </ul> <p>The tables and figures shall be introduced in the appropriate places</p>			
<b>Method of Assessment</b>	External: Report submission* and viva voce.			
<b>Learning Outcome 2</b>	<table border="1"> <tr> <td>Illustrate learning from industrial training through Power-Point Presentation.</td> <td>10</td> <td>15</td> </tr> </table>	Illustrate learning from industrial training through Power-Point Presentation.	10	15
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<b>Contents</b>	<p><b>PPT must contain:</b></p> <ul style="list-style-type: none"> <li>• Introduction to topic clearly.</li> <li>• Arrange and prepare the slides according to the planning of your training.</li> <li>• Include videos and diagrams accordingly.</li> <li>• Presentation should be well organized with sufficient details.</li> <li>• Effective conclusion with highlighting key points.</li> </ul> <p>Delivery of presentation within assigned time limits.</p> <p><b>Note- Student should complete four-week industrial training before commencement of sixth semester.</b></p>			
<b>Method of Assessment</b>	Internal: Presentation and viva voce.			