

# Kurigram Polytechnics Institute, Kurigram

## Semester plan

Course name : 8871 **Construction Methodology-2**

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No. of week	No. of Class	General Objective	Remarks
1	1	1.1 State the meaning of basement floor. 1.2 Mention the function of basement floor. 1.3 Name the suitable materials used for the construction of basement floor. 1.4 Describe the construction procedure of the basement floor. 1.5 Different type of damp proofing of slab.	
	2	2.1 Mention the meaning of ground floor. 2.2 List the components of a ground floor. 2.3 Mention the essential requirements of a ground floor. 2.4 Name the suitable materials used for the construction of ground floor.	
	3	2.5 Describe the construction procedure of the following type of ground floors: a. Brick floor b. Brick concrete floor c. Terrazzo floor d. Mosaic floor e. Tiled floor f. Marble floor g. Timber floor h. Plastic floor i. Cork floor j. Glass floor	
2	1	2.6 Mention the factors that effect the choice of materials to construction ground floors. . 3.1 Mention the meaning of upper floor. 3.2 Distinguish between ground floor and upper floor. 3.3 Mention the essential requirements of upper floors. 3.4 Mention the factors to be considered for the construction of upper floor	
	2	3.5 Describe the construction procedure of different types of upper floors. 3.6 Mention the advantages and disadvantages of the followings: a. Solid floor b. Hollow floor c. Composite floor	

	3	<p>4.1 State the meaning of ramp.</p> <p>4.2 Mention the functions and location of ramp.</p> <p>4.3 Mention the slope ratio in ramp.</p>	
3	1	<p>5.1 Differentiate between stairs and staircase.</p> <p>5.2 Mention the functions and location of stairs.</p> <p>5.3 Define the technical terms used in stairs.</p> <p>5.4 Name various type of steps according to shape and location.</p>	
	2	<p>5.6 Mention the relation between tread and riser.</p> <p>5.7 List the suitable materials for construction of stairs.</p> <p>5.8 Mention the classification of stairs.</p> <p>5.9 Mention the suitability of each type of stair for specific use.</p> <p>5.10 Describe a plan for a staircase of a building from a given stair hall and room height.</p>	
	3	<p>6.1 List different kind of roofs.</p> <p>6.2 Mention the function of a roof.</p> <p>6.3 Mention the essential requirements of a good roof.</p> <p>6.4 Differentiate between roof structure and roof covering.</p> <p>6.5 Define the technical terms used in roof.</p> <p>6.6 Mention the comparison of the advantages and limitations of flat roof over . pitched roof.</p>	
4	1	<p>6.7 List the materials generally used for sloped roofs.</p> <p>6.8 Mention the factors to be considered for selecting roof covering</p> <p>7.1 Mention different types of pitched roof.</p> <p>7.2 Describe, different types of pitched roof.</p> <p>7.3 Describe the construction procedure of a lean to roof.</p> <p>7.4 Distinguish between king post truss and queen post truss.</p> <p>7.5 Mention the advantages of steel trusses over wooden trusses.</p>	
	2	<p>8.1 State the meaning of the lime concrete.</p> <p>8.2 Mention tie function of the line concrete.</p> <p>8.3 Mention the advantages and limitations of LC.</p> <p>8.4 List the properties of the materials used in LC.</p>	

		8.5 Describe the construction procedure of LC.	
	3	9.1 Mention the meaning of false ceiling. 9.2 Describe the function of false ceiling. 9.3 Mention the purpose of false ceiling. 9.4 List the materials generally used for false ceiling. 9.5 Describe the advantages of false ceiling. 9.6 Mention the meaning of false slab. 9.7 List the materials generally used for false slab	
5	1	10.1 List different types of doors. 10.2 Identify the technical terms used in doors. 10.3 Mention the factors to be considered in determining the size of doors. 10.4 Describe various types of doors on the basis of their suitability and uses	
	2	10.5 Mention the advantages and limitation of the followings: a. Panel door b. Flush door c. Glazed door d. Louvered door e. Revolving door f. Sliding door g. Swing door h. Collapsible door i. Rolling shutter door j. Mild steel door k. Plastic door l. Aluminium door	
	3	10.6 Mention the general specifications for construction and workmanship of wooden frame of doors. 10.7 Describe the method of fixing door frames.	
6	1	11.1 List different types of windows. 11.2 Mention the factors to be considered to determine the size, shape, location and number of windows in a room. 11.3 Describe various type of windows on the basis of their suitability and uses. 11.4 Mention the advantages and limitations of the followings	
	2	a. Fixed window	

		<ul style="list-style-type: none"> <li>b. Pivoted window</li> <li>c. Sliding window,</li> <li>d. Steel casement window,</li> <li>e. Glazed or sash window</li> <li>f. Louvered window</li> <li>g. Bay window</li> <li>h. Clerestory window</li> <li>i. Corner window</li> <li>j. Dormer window</li> <li>k. Globe window</li> <li>l. Lantern window</li> </ul> <p>m. Aluminum window.</p>	
	3	<p>11.5 Mention the functions of skylight, sunlight, fanlight and ventilator.</p> <p>11.6 Describe the method of fixing windows.</p> <p>11.7 Mention the comparison among the wooden, steel and aluminum glazed windows.</p> <p>11.8 Name different types of wood joints.</p> <p>11.9 Identify important construction joint suitable for engineering works.</p> <p>11.10 Mention the uses of wood joint.</p> <p>.</p>	
7	1	<p>12.1 State the purpose of plastering and pointing.</p> <p>12.2 Mention the common tools for plastering works with their functions.</p> <p>12.3 Describe the process of applying plaster on a new surface.</p> <p>12.4 Mention the classification of plaster on the basis of their suitability and uses.</p> <p>12.5 Mention the common defects in plastering and pointing</p>	
	2	<p>12.6 Describe how the defects of plastering and pointing can be rectified.</p> <p>12.7 Name the different kinds of pointing with sketches.</p> <p>12.8 Describe the process of pointing works.</p> <p>12.9 Distinguish between plastering and pointing.</p>	
	3	<p>13.1 Mention the purpose of mosaic works.</p> <p>13.2 Describe the materials used in mosaic works.</p> <p>13.3 Describe the process of preparation of surface to be done before applying mosaic materials on floor and wall.</p> <p>13.4 Describe the process of applying mosaic materials on floor.</p> <p>13.5 Mention the common tools used for mosaic tools.</p>	

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8	1	<p>13.6 Mention the classification of mosaic.</p> <p>13.7 Mention the common defects in mosaic works.</p> <p>13.8 Mention how the defects of mosaic can be rectified.</p> <p>13.9 Describe the process of preparation of surface to be done before applying tiles materials on floor and wall.</p>	
	2	<p>14.1 Mention the purpose of planet stone</p> <p>14.2 Describe the materials used in patent stone work.</p> <p>14.3 Describe the process of preparation of surface before applying patent stone.</p> <p>14.4 Describe the process of applying patent stone on floor on patent stone floor.</p>	
	3	Class test	
9	1	<p>14.5 Describe the process of applying neat cement finishing with mix pigment on patent stone floor.</p> <p>14.6 Mention the common tools used for patent stone flooring.</p> <p>14.7 Mention the common defects in patent stone.</p> <p>14.8 Mention how the defects of patent stone can be rectified.</p>	
	2	<p>15.1 Mention the purpose of painting.</p> <p>15.2 Name the ingredients of paint.</p> <p>15.3 Mention the specific function of each ingredient of paint.</p> <p>15.4 Describe the characteristics of good paint</p>	
	3	<p>15.5 Mention the classification of paint with their suitability for use in different situations.</p> <p>15.6 Describe the process of applying paints on new and old surface of the following:</p> <ol style="list-style-type: none"> <li>a. wood surface</li> <li>b. plaster or masonry and other absorbent surface</li> <li>c. metal surface</li> </ol> <p>15.7 Mention various defects in painting.</p> <p>15.8 Describe the factors that should be considered during the supervision of quality painting work.</p>	
10	1	<p>15.9 Differentiate between the properties and ingredients of the fallowings:</p> <ol style="list-style-type: none"> <li>a. white wash and color wash</li> <li>b. distemper and snowcem wash</li> </ol>	

		<ul style="list-style-type: none"> <li>c. oil based paint and water based paint</li> <li>d. plastic emulsion paint and synthetic enamel paint.</li> </ul> <p>15.10 Describe the procedure of application of the following on new and old specific surfaces:</p> <ul style="list-style-type: none"> <li>a. white wash</li> <li>b. color wash</li> <li>c. distemper</li> <li>d. snowcem (cement based paint)</li> <li>e. plastic emulsion paint</li> <li>f. synthetic enamel paint</li> <li>g. weather coat paint</li> </ul>	
	2	<p>16.1 Mention the causes of dampness in building.</p> <p>16.2 Mention the ill effect of dampness in building.</p> <p>16.3 Describe the method of damp proofing of building.</p>	
	3	<p>16.4 Mention the requirements of an ideal damp proofing materials.</p> <p>16.5 Describe the damp proof course (DPC) treatment for basement and wall on undrained soil with sketchers.</p> <p>16.6 Describe the DPC treatment for basement and wall in damp soil with sketches</p>	
11	1	<p>17.1 Mention the purpose of Joining.</p> <p>17.2 Identify different types of Joint.</p> <p>17.3 Expansion Joints.</p> <ul style="list-style-type: none"> <li>a) materials used for expansion joint.</li> <li>b) Provision of Expansion joints in wall</li> </ul>	
	2	<ul style="list-style-type: none"> <li>c) Provision of Expansion joints in roofs and floors.</li> <li>d) Provision of Expansion joints in chajja balconics etc.</li> <li>e) Provision of Expansion joints in verandah slab.</li> <li>f) Provision of Expansion joints in framed structure.</li> </ul>	
	3	<ul style="list-style-type: none"> <li>a) Isolation joint.</li> <li>b) Construction joints.</li> <li>c) Sliding joints.</li> <li>d) Floor Joints in large structure.</li> </ul>	
12	1	<p>18.1 Define the form work.</p> <p>18.2 Explain the requirements of form work.</p> <p>18.3 List the materials generally used for form work</p>	

	2	18.4 Describe the procedure and Sketch of application of the following.	
	3	a.Shuttering for Columns	
13 14 15 16		<b>Class test ,Quize test, Extra class, Solve problems of board question. and Semester Final Examination.</b>	