Subject: PC/CE/34-T Building Construction, Materials and Drawing

Week	Theory		Topic	Covered Date	and Remarks
	Lecture- Day	Topic (Including Assignment/Test)	Date	HOD	Director- Principa
1 st	1	Masonry Construction: Introduction, various terms used			
	2	Stone masonry-Dressing of stones, Classifications of stone masonry, safe permissible loads,			
	3	Brick masonry-bonds in brick work, laying brick work, structural brick work-cavity and hollow walls			
2nd	4	Reinforced brick work, Defects in brick masonry, composite stone and brick masonry, glass block masonry.			
	5	Cavity and Partition Walls: Advantages, position of cavity, types of non-bearing partitions			
	6	Constructional details and precautions, construction of masonry cavity wall.			
3rd	7	Foundation: Functions, types of shallow foundations, sub-surface investigations			
	8	Geophysical methods, general feature of shallow foundation,			
	9	Foundations in water logged areas			
	10	design of masonry wall foundation			
4th	11	Introduction to deep foundations i.e. pile and pier foundations.			
	12	Damp-Proofing and Water-Proofing: Defects and causes of dampness,			
5th	13	Prevention of dampness, materials used, damp-proofing treatment in buildings,			
	14	Water proofing treatment of roofs including pitched roofs			
	15	Roofs and Floors: Floor structures, ground, basement and upper floors			
6 th	16	Various types of floorings.			
	17	Types of roofs, various terms used, roof trusses-king post truss, queen post truss etc.			
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$7^{\rm th}$		1st Minor Test			
8 th	19	Doors and Windows: Locations, sizes, types of doors and			
		windows			
	20	Fixtures and fastners for doors and windows.			
	21	Stones: Classification, requirements of good structural stone			
9th	22	quarrying, blasting and sorting out of stones,			
	23	Dressing, sawing and polishing, prevention and seasoning of stone.			
	24	Classification of bricks, constituents of good brick earth			
10th	25	Harmful ingredients, manufacturing of bricks, testing of bricks.			
	26	Tiles: Terra-cotta, manufacturing of tiles and terra-cotta			
	27	, types of terra-cotta, uses of terra-cotta.			
11th	28	Classification of lime, manufacturing, artificial hydraulic lime, pozzolona, testing of lime, storage of lime,			
	29	Cements composition, types of cement,			
	30	Manufacturing of ordinary Portland cement, testing of cement, special types of cement, storage of cement.			
12th	31	Mortars: Definition, proportions of lime and cement mortars, mortars for masonry and plastering.			
	32	Classification of timber, structure of timber, seasoning of timber, defects in timber,			
13th	33	, fire proofing of timber, plywood, fiberboard, masonite and its manufacturing, important Indian timbers.			
	34	Ferrous Metals: Definitions, manufacturing of cast iron, manufacturing of steel from pig iron, types of steel, marketable form of steel.			
	35	Paints and Varnishes: Basic constituents of paints, types of paints,			
	36	Painting of wood, constituents of varnishes, characteristics and types of varnishes.			
14th		2 nd Minor Test		1	
15th	37	Plastic: Definition, classification of plastics, composition and raw materials			
	38	Manufacturing, characteristics and uses, polymerization, classification, special varieties.			
	39	Special varieties		1	

Sem: 3rd