BVM ENGINEERING COLLEGE [AN AUTONOMOUS INSTITUTION]

5SE07: ADVANCED DESIGN OF CONCRETE STRUCTURES
CREDITS – 4 (LTP:3,1,0)

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)			Credits	Assessment Scheme				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE	CE	ESE	CE	
3	1	0	4	60	40	20	30	150

Course Contents:

Unit No.	Topics	Teaching Hours
1	**Serviceability Criteria :** Serviceability Criteria like deflections and Crack width, Vibration etc.	03
2	**Flat Slab:** Proportioning, analysis and design of flat slab by direct design method	04
3	**Grid Floors:** Analysis and Design of grid floor by Rankine Grashroff Classical equivalent plate theory and IS 456 Design	05
4	**Design of Foundations:** Design of rafts, Strip footing and pile cap.	07
5	**Domes:** Design of spherical & conical domes with & without openings	03
6	**Design of Ground Supported and Elevated Water Tank:** Design of Intze type shaft supported water tank with convective mode & impulsive mode	10
7	**Folded plate roofs :** Analysis and design of Folded plate roofs.	06
8	**Bunker and Silos:** Design of Bunker and Silos.	04
	Total	**42**

List of References:

1. Shah and Karve, "*Design of Multi-storied Building*" (G+3) Structure Pub., Pune.
2. Krishana Raju N., "*Advanced Design of Concrete Structures*" Tata Mc-Graw Hill, Delhi.
3. Sinha S. N., "*Reinforced Concrete Design*" Tata Mc-Graw Hill, Delhi.
4. Jain A. K., "*Limit State Design of Reinforced Concrete*" Nemchand & Bros., Roorkee.
5. Varghese A. V., "*Advanced Reinforced Concrete*", Prentice Hall of India.
6. Shah H. J., "*Reinforced concrete*", Vol - I and II Charotar Pub., Anand.
7. IS Codes : IS:456, IS:875, IS:1893, IS:4326, IS:13920, IS: 3370, IS: 4995 (I & II), SP:16, SP:34.
8. Devdas Menon And Pillai & S.Unnikrishna Pillai "*Reinforced concrete Design*"