JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
T1- EXAMINATION (September - 2016)
B. Tech. (V- SEM.)

COURSE CODE: 10B11CE514   MAX. MARKS: 15
COURSE NAME: Water Supply Engineering
COURSE CREDIT: 4   MAX. TIME: 1 HRS

Note: Attempt all questions. Assume suitable data if required. Carrying of mobile phone during examinations will be treated as case of unfair means

1. Discuss with appropriate sketches and figures (if necessary) the planning and execution of a Modern Water Supply Scheme. Highlight the key differences when considering for a new town and if the proposed system is to augment an existing system. **(3)**

2. The average population in town is 10, 00,000 with an average consumption of 200lpcd. Using the above information, determine (a) the different kinds of demand and (b) the required capacity of major components of proposed waterworks in city using river as a source.   **(3)**

3. Mention the permissible limits for the following parameters for drinking water purposes as per BIS standards **(2.5)**

Parameter	Permissible Limits
Turbidity	
Chloride	
Hardness	
Colour	
TDS	

4. Briefly explain the term 'water demand'. What are the various factors which affect the water demand? With neat mathematical expressions, explain how the water demand calculated in terms of lpcd **(2.5)**

5. The following information has been received from a census data **(4)**

Year	Population
1971	84000
1981	115000
1991	160000
2001	205000
2011	250000

Determine the population using (a) arithmetic (b) geometric (c) incremental increase of growth method.