B.TECH. SEM -IV ELECTRICAL 2014 COURSE (CBCS) :
WINTER - 2017

SUBJECT: GENERATION, TRANSMISSION AND DISTRIBUTION

Day : **Thursday** **W-2017-2081** Time: **02.30 PM TO 05.30** P.M.
Date : **23/11/2017** Max. Marks: 60

N.B.:
1) All questions are **COMPULSORY**.
2) Figures to the write indicate **FULL** marks.
3) Use suitable data if necessary.

Q.1	**a)**	Draw diagram of Hydroelectric power station and explain.	**(05)**
	b)	List different hydroelectric power station in the country.	**(05)**
		OR	
	a)	Draw block diagram of thermal power plant and explain.	**(05)**
	b)	Draw block diagram of Nuclear power plant and explain.	**(05)**
Q.2	**a)**	Explain following terms: i) Connected load ii) Maximun demand iii) Demand factor.	**(05)**
	b)	Explain load curve and its importance.	**(05)**
		OR	
	a)	What is integrated load duration curve?	**(05)**
	b)	What is significance of high load factor?	**(05)**
Q.3	**a)**	List different kind of Non-conventional energy sources.	**(05)**
	b)	Explain basic concept of solar power plant.	**(05)**
		OR	
	a)	Discuss about geothermal energy.	**(05)**
	b)	Explain power generation by bio-gas.	**(05)**
Q.4	**a)**	Obtain mathematical expression for string efficiency of insulator.	**(05)**
	b)	Obtain mathematical expression for sag.	**(05)**
		OR	
	a)	What is proximity effect?	**(05)**
	b)	What do you understand by Ferranti effect?	**(05)**
Q.5	**a)**	Obtain performance of long transmission line.	**(05)**
	b)	Represent 'T' model of transmission line.	**(05)**
		OR	
	a)	Obtain performance of short transmission line.	**(05)**
	b)	What is characteristic impedance?	**(05)**
Q.6	**a)**	Obtain expression for insulation resistance of single core cable.	**(05)**
	b)	Discuss grading of cable.	**(05)**
		OR	
	a)	Discuss cable faults and there location of faults.	**(05)**
	b)	Explain requirements of distribution system.	**(05)**

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