

Model Question Paper

USN

--	--	--	--	--	--	--	--	--	--

Seventh Semester B.E. Degree Examination Subject Title Power System Planning

TIME: 03 Hours

Max. Marks: 100

Note: Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	Define planning process & explain it with the help of neat block diagram	L2	10
	b	Explain the enterprise resource planning with module diagram.	L2	06
	c	With the help of flow diagram explain peak load forecast.	L2	04
OR				
Q.02	a	With the help of neat diagram explain least cost utility planning.	L3	10
	b	Explain the different types of load forecasting techniques.	L3	10
Module-2				
Q. 03	a	Explain the concept of private participation in power sector.	L2	10
	b	Explain in detail economic appraisal to allocate scarce resources efficiently.	L3	10
OR				
Q.04	a	Explain the renovation and modernization of power plants.	L3	10
	b	Explain the clean coal technologies used in coal based plants.	L3	10
Module-3				
Q. 05	a	Explain the transmission planning criteria.	L3	08
	b	Write a note on i) Energy storage ii) Gas – Insulated sub stations.	L2	06
	c	Explain the different factors considered in substation planning.	L2	06
OR				
Q. 06	a	Mention and explain the different types of conductors used in transmission system.	L2	08
	b	Explain the planning criteria for reactive power compensation.	L3	06
	c	Mention various advantages and disadvantages of HVDC transmission system.	L2	06
Module-4				
Q. 07	a	Mention different distribution planning principles.	L2	06
	b	Explain the different rural electrification policies and mention main components of rural electrification.	L2	10
	c	Explain the criteria for site selection of substation.	L2	04
OR				
Q. 08	a	Define system reliability & explain the reliability planning criteria.	L2	08
	b	Explain the concept of reliability by citing a suitable reliability model.	L3	07
	c	Explain briefly the terms security and disaster management with reference to power system reliability.	L3	05
Module-5				
Q. 09	a	Define demand response & explain demand response planning with block diagram.	L2	08
	b	Write a short note on energy audit.	L2	06
	c	List out & explain the different demand response programmes.	L2	06
OR				

Q. 10	a	Discuss briefly various market principles of electricity market.	L2	07
	b	Write a short note on smart power market & power pool.	L2	07
	c	Explain the energy efficiency use in different motors.	L2	06

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.