

### KALSEKAR TECHNICAL CAMPUS, NEW PANVEL

Approved by : All India Council for Technical Education, Council of Architecture, Pharmacy Council of India New Delhi, Recognised by : Directorate of Technical Education, Gov1. of Maharashtra, Affiliated to : University of Mumbai. SCHOOL OF ENGINEERING & TECHNOLOGY
 □ SCHOOL OF PHARMACY

□ SCHOOL OF ARCHITECTURE

DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00 QUESTION PAPER CLASS TEST 01 EXM-04 B

CLASS:- BE SEM:- VIII			
		E:- 15/02/19	
		RKS:- 20	
Q.0	1 Attempt any TWO: (08 Marks)	Marks	СО
a)	Compare HVDC with FACTS	4	CO1
b)	b) Explain various parameters which limit loading capabilities of transmission lines.		CO2
c)	What is reactive power biasing? Explain with V-Q characteristics.	4	CO2
Q.0	2 Attempt any TWO: (12 Marks)		
a)			CO1
b)	b) Derive approximate formula for voltage regulation using short circuit level.		CO2
c)	Explain power factor correction in single phase systems.	6	CO2

CRITERION: 2.2.2, 3.2.2.

FILE NO: P25, P31

Innovative Teaching - Exuberant Learning

Vision: To be the most sought after academic, research and practice based department of Electrical Engineering that others would wish to emulate.



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REV:00 QUESTION PAPER CLASS TEST 01			EXM-04 B
CLA	SEM:- VIII		
CO	URSE:- FACTS	DATE:- 16/02/1	9
DU	RATION:- 60 min.	MARKS:- 20	
Q.0	01 Attempt any TWO: (08 Marks)	Mark	s CO
a)	Compare HVDC with FACTS	4	CO1
b)	Explain various parameters which limit loading capabiliti	es of transmission lines.	CO1
c)	What is reactive power biasing? Explain with V-Q charac	teristics. 4	CO2
		· 200	
Q.0	22 Attempt any TWO: (12 Marks)		
a)	Explain various types of FACTS controllers with their objection	ectives in detail. 6	CO1
b)	Derive approximate formula for voltage regulation using	short circuit level. 6	CO2
c)	Explain power factor correction in single phase systems.	6	CO2

CRITERION: 2.2.2, 3.2.2.

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R	EV:00	QUESTION PAPER CLASS TEST 01	EXM-04 B	
CLA	SS:- BE	SEM:-VIII		
COL	JRSE:- PSPR	DATE:- 15 2	2/19	
DUF	RATION:- 6	<b>50 min.</b> MARKS:- <b>20</b>		
		Q.01 Attempt any two: (08 Marks)	Marks	СО
a)	What is the	e meaning of term outage and explain different types of outage.	4	3
b)			4	1
c) The reliability of a component is 0.3. How many such components can be connected in parallel to achieve overall reliability at least 0.85			4	2
		Q.02 Attempt any two: (12 Marks)		
a)	Write a sho	ort note on bath tub curve.	6	2
b)	A system has 2 elements in parallel. Each elements consists of 2 components in series. The reliabilities of components are 0.84 and 0.9 resp. Find the reliability of the system		6	2
c)		ad growth characteristics in detail.	6	3



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F	REV:00	QUESTION PAPER CLASS TEST 01	EXM-04 B	
CLA	SS:- BE	SEM:-VII	-	
COL	JRSE:- PSPR	DATE:-		
DUF	RATION:- 6	0 min. MARKS:-	20	
		Q.01 Attempt any two: (08 Marks)	Marks	СО
a)	a) What is the meaning of term outage and explain different types of outage.		4	3
b)			4	1
c) The reliability of a component is 0.3. How many such components can be connected in parallel to achieve overall reliability at least 0.35		4	2	
		Q.02 Attempt any two: (12 Marks)		
a)	Write a sho	ort note on bath tub curve.	6	2
b) A system has 2 elements in parallel. Each elements consists of 2 components in series. The reliabilities of components are 0.84 and 0.9 resp. Find the reliability of the system		ies. 6	2	
c)	Explain Loa	d growth characteristics in detail.	6	3

CRITERION: 2.2.2, 3.2.2.

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	A Company of the Comp	DEPARTMENT OF ELECTRICAL ENGINEERING			
	REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING		EXM-0	4(a)
CL	ASS:- BE		SEM:- VIII		
SU	BJECT:- DC		DATE:- 14	/02/19	
DU	RATION:- 1hr		MARKS:-	20	
		CLASS TEST 01			
Q.0	1 Attempt any o	ne : (6 Marks)		Marks	CO
1	T= (	llowing equation for motor and load torque.  1+20m) and The 3 10m  ilibrium points and determine their steady state stability.		6	CO1
2	A constant spe I) Load rising	ed drive has the following duty cycle: from 0 to 400kW: 5 min and of 500 kW: 5 min	· · · · · · ·	6	CO6
	III) Regenerat	ive power of 400kW returned to the supply: 4min leal for: 2 min rating of the motor. Assume losses to be promotional to pow	$\mathrm{er}^2$		
Q.0		WO: (14 Marks)	V		
1	Explain closed	oop speed control scheme which is widely used in electrical drives.		7	CO2
2	Explain load e	qualization with derivation to calculate moment of inertia?		7	CO1
3	Explain classe	s of motor duty. State its importance drives selection of motor	•	7	CO6



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	REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING		EXM-0	4(a)
CL	ASS:- BE		SEM:- VIII		
SUI	BJECT:- DC		DATE:-	/ /19	
DU	RATION:- 1hr		MARKS:- 2	20	
		CLASS TEST 01			×
Q.0	1Attempt any o	one: (6 Marks)		Marks	CO
1		ollowing equation for motor and load torque. $(1+2 \omega_m)$ and $1e = 3 \omega_m$ uilibrium points and determine their steady state stability.		6	CO1
2	V) Load risin VI) Uniform VII) Regener VIII) Remain	eed drive has the following duty cycle: ag from 0 to 400kW: 5 min load of 500 kW: 5 min rative power of 400kW returned to the supply: 4min rideal for: 2 min er rating of the motor. Assume losses to be promotional to pow	er <sup>2</sup>	6	CO6
Q.0	2 Attempt any	ΓWO: (14 Marks)	7 2 7		-
1	Explain closed	loop speed control scheme which is widely used in electrical drives.	an an	7	CO2
2	Explain load	equalization with deprivation to calculate moment of inertia?		7	CO1
3	Explain classe	es of motor duty. State its importance drives selection of motor	•	7	CO6

CRITERION: 2.2.2, FILE NO: P25, P31



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R	EV:00	<b>QUESTION PAPER CLASS TEST 01</b>	EXM-04 B		
CLA	SS:-BE Ele	ctrical	SEM:-VIII		
COL	JRSE:-DAE	MS	DATE:- 14 /	01/2019	9
DUR	RATION:-	60 min.	MARKS:- 20		
Q.0:	1 Attempt	any two: (08 Marks)		Marks	СО
a) Draw and explain single line diagram.				04	CO1
b)	b) Give a detail calssification of a distribution system.			04	CO1
c) Define load factor, diversity factor, plan capacity factor and plant use factor.			04	CO1	
Q.02	2 Attempt	any two: (12 Marks)		Λ	
a) Expalin tempearary and permanent power supply				06	CO1
b) Explain the design consideration of a distribution sysem.			06	CO1	
c)	Expalin o	design consuderation in transformer selection.		06	CO1



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REV:00	<b>QUESTION PAPER CLASS TEST 01</b>	EXM-04 B		
CLASS:-BE Electrical SEM:-VIII				
COURSE:-D	COURSE:-DAEMS DATE:- 14 / 02			
DURATION:	DURATION:- 60 min. MARKS:- 20			
		3. A		
Q.01 Atten	pt any two: (08 Marks)		Marks	СО
a) Draw and explain single line diagram.			04	CO1
b) Give a detail calssification of a distribution system.				CO1
c) Define load factor, diversity factor, plan capacity factor and plant use factor.				CO1
Q.02 Attem	pt any two: (12 Marks)			
a) Expali	tempearary and permanent power supply		06	CO1
b) Explai	b) Explain the design consideration of a distribution sysem.			CO1
c) Expali	Expalin design consuderation in transformer selection.			CO1

CRITER ON: 2.2.2, 3.2.2.

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