ANJUMAN-I-ISLAM'S

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, Govt. of Maharashtra, Affiliated to : University of Mumbai.

☑ SCHOOL OF ENGINEERING & TECHNOLOGY
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☐ SCHOOL OF ARCHITECTURE

DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING	EXM-04(a)
CLASS:- S.E.		SEM:- III
SUBJECT:- AM III		DATE:- 23/10/17
DURATION:- 1 Hr		MARKS:- 20

UNIT TEST 02

Q.01 Attempt any TWO: (10 Marks)		Marks	CO
a)	Find Laplace transform of $te^{3t}\sin 4t$	5	1
b)	Find inverse Laplace transform of $\dfrac{s^2}{(s^2+a^2)(s^2+b^2)}$ by using convolution theorem	5	1
c)	Solve using Laplace transform $3\dfrac{dy}{dt} + 2y = e^{3t}$, y=1 at t=0	5	1
Q.02 Attempt any TWO: (10 Marks)			
a)	Find the Fourier expansion of $f(x) = x^2$, $-\pi \le x \le \pi$	5	3
b)	Find the Fourier series for $f(x) = 1- x^2$ in (-1,1)	5	3
c)	Find half range cosine series for f(x) = x, 0<x<2	5	3

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DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING	EXM-04(a)
CLASS:- SE		SEM:- III
SUBJECT:- CNCPG		DATE:-
DURATION:- 1 Hr		MARKS:- 20

CLASS TEST 02

Q.01 Attempt any TWO: (10 Marks)		Marks	CO
a	Differentiate between nuclear fission and fusion	5	CO2
b	Write a short note on hydro graph and flow duration curve	5	CO3
c	Explain advantages and disadvantages of Nuclear power plant	5	CO3
Q.02 Attempt any ONE: (10 Marks)			
a	Explain and classified the types of hydro power plant	10	CO2
b	Write a short note on liquid metal fast breeder reactor.	10	CO3

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DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING		EXM-04(a)
CLASS:- SECOND YEAR		SEM:- III	
SUBJECT:- EEM		DATE:-	
DURATION:- 1 Hr		MARKS:- 20	

CLASS TEST 02

	Q.01 Attempt any ONE: (10 Marks)	Marks	CO
1		10	2
	Explain construction and working of RTD		
2	How potentiometer is used to calibrate voltmeter and ammeter	10	3
3	State need for compensation in thermocouple and explain how cold junction and lead junction is provided.	10	2
	Q.02 Attempt any ONE: (10 Marks)	10	
	Write a note on Digital frequency meter.	10	1
	Write a note on Digital Tachometer.	10	1

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DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING	EXM-04(a)
CLASS:- SE		SEM:- III
SUBJECT:- EMC-I		DATE:- 25/10/17
DURATION:- 1hr		MARKS:- 20

CLASS TEST 02

Q.01 Attempt any TWO: (10 Marks)		Marks	CO
1	Explain dynamic/rheostatic braking for- i. Separately excited motor ii. Shunt motor iii. Series motor	5	CO4
2	Explain single stack variable reluctance stepper motor	5	CO6
3	A 500v shunt motor takes 4 amp on no load. The armature resistance including that of brushes is 0.2 ohm and the field current is 1 amp. Estimate the output and efficiency when the input current is – i) 20Amp ii) 100Amp	5	CO4
Q.02 Attempt any ONE: (10 Marks)			
1	Explain construction and working of 4 point starter. State advantages over 3 point starter.	10	CO4
2	The hopkinson's test on two identical shunt machines gave the following results-	10	CO5

i/p voltage=500V	Field current of generator= 4 Amp
i/p current =15 Amp	Field current of motor = 3 Amp
o/p current of generator=120 Amp	Armature Resistance of each m/c = 0.06 ohm

Find efficiency of both machines.

I n n o v a t i v e T e a c h i n g - E x u b e r a n t L e a r n i n g

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DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING		EXM-04(a)
CLASS:- SE		SEM:- III	
SUBJECT:- EDC		DATE:- /10/2017	
DURATION:- 1Hr		MARKS:- 20	

CLASS TEST 02

Q.01 Attempt any TWO: (10 Marks)		Marks	CO
a	Differentiate between E-mosfet and D-mosfet	05	CO3
b	Draw and explain the IVcharacteristics of JFET	05	CO4
c	Plot the Transfer characteristics with Q-point.	05	CO4
Q.02 Attempt any ONE: (10 Marks)			
a	Draw and explain the process of generation of oscillations from an LC Tank Circuit	10	CO4
b	Derive the frequency of oscillations for colpitts oscillator.	10	CO4