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
☐ SCHOOL OF PHARMACY
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DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	QUESTION PAPER UT I	EXM-04(b)

CLASS:- S. E. EE	SEM:- III
SUBJECT:- Applied Mathematics III (ECC 301)	DATE:- 27 / 08 / 2018
DURATION:- 60 min.	MARKS:- 20

Q.01 Attempt any Two : (8 Marks)		Marks	CO
a)	If $f(z) = (x^2 + 2a\,x\,y + b\,y^2) + i (c\,x^2 + 2d\,x\,y + y^2)$ is analytic , Find a, b, c, d.	04	CO3
b)	Find Bilinear Transf. which maps the points $z = 1, i, -1$ to $w = 0, 1, \infty$.	04	CO3
c)	Find image of real axis of z plane under the transformation $w = \frac{1}{z+i}$	04	CO3

Q.02 Solve: (12 Marks)			
a)	Find Laplace Transform of 1) $\frac{\sin 2t}{t}\, e^{-3t}$ 2) $t\sqrt{1 + \sin t}$	06	CO1
a)	OR Define Laplace Transform of F(t) . Evaluate the integral using L.T. $\int_0^\infty e^{-3t} \cos^3 t \; dt$		
b)	Prove that $J_{1/2}(x) = \sqrt{\frac{2}{\pi x}}\, \sin x$	06	CO5
b)	OR Prove that $\int J_5\, dx = -J_4 - \frac{4}{x}\, J_3 - \frac{8}{x^2}\, J_2$		

CRITERION: 2.2.2, 3.2.2.

FILE NO : P25, P31

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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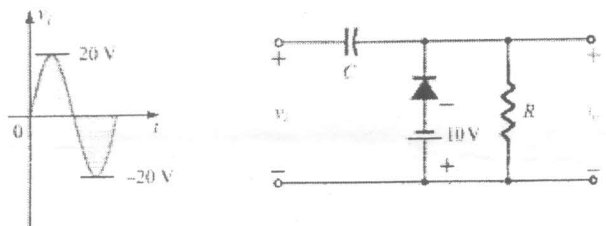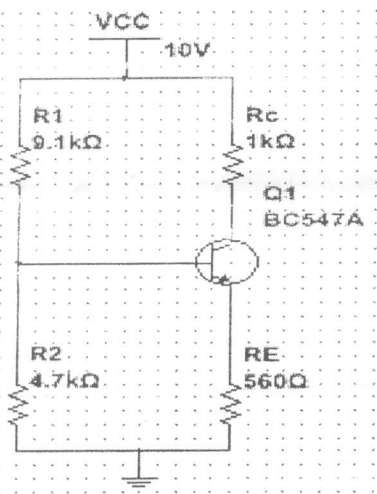# KALSEKAR TECHNICAL CAMPUS, NEW PANVEL

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DEPARTMENT OF ELECTRICAL ENGINEERING

REV:00	DEPARTMENT OF ELECTRICAL ENGINEERING	EXM-04(B)

CLASS:- SE	SEM:- III
SUBJECT:- EDC	DATE:- 27/8/18
DURATION:- 1hr	MARKS:- 20

CLASS TEST 01

		Marks	CO
Q.01 Attempt any TWO: (8 Marks)			
1	Explain operation of PN Junction Diode. Also draw V-I characteristics diode.	4	CO1
2	Draw output waveform for the circuit shown below.	4	CO1
3	Explain construction and working of Schottky diode.	4	CO1
Q.02 Attempt any ONE: (12 Marks)			
1	Draw FWR with C filter and describe the circuit operation with waveform. Compare the performance of C, L, LC filters.	12	CO1
2	Find I_{CQ}, V_{CEQ} for the circuit shown in the figure below if $\beta = 100$. Also Derive the expression for stability factor of voltage Divider circuit and calculate the value of stability factor for the circuit shown below.	12	CO2

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REV:00	**QUESTION PAPER CLASS TEST 01**	EXM-04 B
CLASS:-**Second year**		SEM:- III
COURSE:- **EEM**		DATE:- **28/08/ 2018**
DURATION:- **60 min.**		MARKS:- **20**

	Q.01 Attempt any ONE : (08 Marks)	Marks	CO
a)	Mention The Characteristics Of Good Transducer And Explain Selection Criterion Of A Transducer.	08	5
b)	Draw Tree Diagram Representing Passive Transducers. Also Define Thermistor Mentioning It's Type.	08	5
c)	Explain Wheatstone Bridge.	08	3
	Q.02 Attempt Any One: (12 Marks)		
a)	Write Short Note On Lvdt	12	5
b)	Write Construction And Working Of Potentiometer	12	5
c)	Write In Brief About Anderson's Bridge	12	3

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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FILE NO : P25, P31	CRITERION : 2.2.2, 3.2.2.

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

CLASS:-SE	SEM:-III
COURSE:-CNCPG	DATE:- 28 / 08 / 2018
DURATION:- 60 min.	MARKS:- 20

		Marks	CO
Q.01 Attempt any Two : (08 Marks)			
a)	Explain the term Load factor, maximum Demand, Demand factor, diversity factor & plant capacity factor.	4	CO1
b)	Explain Load curve & load duration curve.	4	CO1
c)	Explain types of Tariff methods.	4	CO1
Q.02 Attempt any One: (12 Marks)			
a)	The Maximum demand of a power Station is 9600 KW. IT has to supply the load as follows: Time 0-6 6-8 8-12 12-14 14-18 18-22 22-24 (HRS) Load(MW) 48 60 72 60 84 96 48	12	CO1
b)	Draw & Distunguish layout of thermal power plant.	12	CO2
c)	Explain the role of super heater and it impact on the performance of power plant.	12	CO2

CRITERION : 2.2.2, 3.2.2.

FILE NO : P25, P31

Innovative Teaching - Exuberant Learning

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REV:00	QUESTION PAPER CLASS TEST 01	EXM-04 B
CLASS:- **Second year**		SEM:- **III**
COURSE:- **EMC-1**		DATE:-**29/08/2018**
DURATION:- **60 min.**		MARKS:- **20**

Q.01 Attempt any ONE : (08 Marks)		Marks	CO
a)	Explain with a neat sketch the construction od dc machines	08	CO3
b)	Derive the emf equation of DC machine.	08	CO3
Q.02 Attempt Any One: (12 Marks)			
a)	Explain the concept of singly excited machines and derive the expression for the electromagnetic torque.	12	CO2
b)	Explain the dfferent types of losses in electromagnetic circuits. Explain the precautions taken to reduce hysteresis loss and eddy current loss.	12	CO1

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FILE NO :	CRITERION :
P25, P31	2.2.2, 3.2.2.