



**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  
 SCHOOL OF ARCHITECTURE

**DEPARTMENT OF ELECTRICAL ENGINEERING**

|  |  |                |
|--|--|----------------|
| REV:00                                     | DEPARTMENT OF ELECTRICAL ENGINEERING   | EXM-04(a)      |
| CLASS:- BE                                 |  | SEM:- VIII     |
| SUBJECT:- DC                               |  | DATE:- 28/2/18 |
| DURATION:- 1hr                             |  | MARKS:- 20     |
| <b>CLASS TEST 01</b>                       |  |                |
| <b>Q.01 Compulsory Question: (6 Marks)</b> |  | <b>Marks</b>   |
| 1  | A drive has following equation for motor and load torque.<br>$T = 1 + 2\omega_m$ $T_L = 3\sqrt{\omega_m}$<br>Obtain the equilibrium points and determine their steady state stability. | 6              |
| <b>Q.02 Attempt any TWO: (14 Marks)</b>    |  | <b>CO</b>      |
| 1  | Explain closed loop speed control scheme which is widely used in electrical drives.  | 7              |
| 2  | Explain load equalisation with derivation?   | 7              |
| 3  | What is electrical drives. State the main factors which decides the choice of electrical drives  | 7              |

**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          | <b>DEPARTMENT OF ELECTRICAL ENGINEERING</b> | EXM-04(a)         |
| CLASS:- BE      |   | SEM:- VIII        |
| SUBJECT:- DMAES |   | DATE:- 29/02/2018 |
| DURATION:- 1 Hr |   | MARKS:- 20        |

**CLASS TEST-01**

| Q.01 Attempt any TWO: (10 Marks each)                                    | Marks | CO |
|--|-------|----|
| 1 Define energy monitoring and targeting and what are the key elements?  | 10    | 4  |
| 2 Write detailed note on CUSUM technique                                 | 10    | 4  |
| 3 What is tariff? State various components of tariff.                    | 10    | 2  |
| 4 Explain design consideration in transformer sizing and specifications. | 10    | 1  |





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|  |             |     |
|--|-------------|-----|
| CLASS:- BE   | SEM:- V III |     |
| SUBJECT:- PSPR   | DATE:- 13/8 |     |
| DURATION:- 1 Hr  | MARKS:- 20  |     |
| <b>CLASS TEST-01</b>   |             |     |
| <b>Q.01 Attempt any TWO: (10 Marks)</b>  |             |     |
| a What is load growth characteristic?  | Marks       | CO  |
| b What is the meaning of Outage? Explain their types?  | 5           | CO4 |
| c The reliability of component is 0.5, how many such components can be connected in parallel to achieve an over all reliability of at least 0.9? | 5           | CO1 |
| <b>Q.02 Attempt any ONE: (10 Marks)</b>  |             |     |
| a Draw Bath Tub Curve and defines all three regions in it?   | 10          | CO2 |
| b Explain load forecasting and their types in detail   | 10          | CO4 |

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|   |   |             |
|---|---|-------------|
| REV:00                                  | DEPARTMENT OF ELECTRICAL ENGINEERING  | EXM-04(a)   |
| CLASS:- BE                              | SEM:- VIII  |             |
| SUBJECT:- FACTS                         | DATE:- 01/03/18   |             |
| DURATION:- 1hr                          | MARKS:- 20  |             |
| <b>CLASS TEST 01</b>                    |   |             |
| <b>Q.01 Attempt any TWO: (10 Marks)</b> |   |             |
| 1                                       | Why do we need transmission interconnection?  | Marks 5 CO1 |
| 2                                       | Explain various parameters which limit loading capabilities of transmission line.                     | 5 CO1       |
| 3                                       | Explain load compensation? State its objective.   | 5 CO2       |
| <b>Q.02 Attempt any ONE: (10 Marks)</b> |   |             |
| 1                                       | Show that voltage sensitivity for load reactive power is $\frac{dv}{dq} = \frac{-E/SSC}{1+kx(E/SSC)}$ | 10 CO2      |
| 2                                       | Explain power factor correction and phase balancing of unsymmetrical load in detail                   | 10 CO2      |

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**UNIVERSITY OF MUMBAI - INDIA**