



Sanjay Ghodawat University, Kolhapur

2018-19

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/01

Year and Program: 2018-19  
B.Tech in Electrical &  
Electronics

School of Technology

Department of Electrical Engineering  
SY B.Tech

Course Code: EET 210

Course Title: Distribution &  
Utilization of Electrical Power

Semester – IV

Day and Date Thursday  
30/5/2019

End Semester Examination  
(ESE)

Time: 3 Hrs. Max Marks: 100  
10.30 am to 1.30 pm.

**Instructions:**

- 1) All questions are compulsory.
- 2) Assume suitable data wherever necessary.
- 3) Figures to the right indicate full marks.

Q.1	Solve the following.	Marks	Bloom's Level	CO
a)	Explain following Substation equipments 1] Transformer 2] Circuit Breaker	07	L2	CO1
OR				
a)	Explain the following terms 1] Lighting Arrester 2] Relay	07	L2	CO1
b)	Compare Overhead Distribution System and Underground Distribution System in detail.	08	L4	CO2
OR				
b)	Write the effect of disconnection of neutral in three phase four system.	08	L4	CO2
Q.2	Solve the following.			
a)	Explain construction & working of Incandescent Lamp & Discharge lamp.	07	L2	CO3
OR				
a)	Write a short note on 1] Street lighting. 2] Flood lighting.	07	L2	CO3
b)	Explain Resistance heating method in detail.	08	L2	CO4
OR				

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	b)	Explain Dielectric heating & its applications in industrial fields.	08	L2	CO4
<b>Q.3</b>		<b>Solve any Two</b>			
	a)	Explain current transformer & potential transformer in detail.	08	L2	CO1
	b)	Define Power Quality & various causes of low power quality.	08	L1	CO2
	c)	Explain construction and working of CFL.	08	L2	CO3
	d)	Explain core type and coreless type induction heating in detail.	08	L1	CO4
<b>Q.4</b>		<b>Solve any Two</b>			
	a)	Write fundamental torque equation of motor load system also explain various components of load torque.	09	L3	CO5
	b)	Explain Dynamic braking, Plugging and Regenerative braking of DC shunt motor.	09	L2	CO5
	c)	Explain block diagram of electric drives state advantages of electric drives.	09	L2	CO5
<b>Q.5</b>		<b>Solve any Two</b>			
	a)	Explain speed time curve of traction system, also draw speed time curve for city service, sub-urban service and for main line service.	09	L1	CO6
	b)	Explain following systems of track electrification, 1] Composite system      2] 3 phase AC system.	09	L2	CO6
	c)	Draw and explain AC electric locomotive in detail.	09	L4	CO6
<b>Q.6</b>		<b>Solve any Three</b>			
	a)	Explain factors affecting the choice of electric drives.	06	L2	CO5
	b)	Explain selection criteria of motors for different drives applications.	06	L2	CO5
	c)	Explain various advantages and disadvantages of Electric traction.	06	L2	CO6
	d)	Draw and explain typical speed time curve of traction system	06	L3	CO6

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