Code No: R1621012 **R16** SET - 1

II B. Tech I Semester Supplementary Examinations, May - 2018
BASIC ELECTRICAL AND ELECTRONICS ENGINEERING
(Com to CE & PE)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B)**
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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PART –A

1.	a)	When 10Ω, 15Ω are connected in parallel and this resultant is connected in series with 50Ω then evaluate total equivalent resistance.	(3M)
	b)	Calculate the generated e.m.f of an 4 pole wave wound generator having 65 slots with 12 conductors per slot when driven at 1200 r.p.m. and the flux per pole is 0.02 Weber.	(3M)
	c)	Why Iron losses present in a transformer	(2M)
	d)	Define slip?	(2M)
	e)	What is the function of OP-AMP?	(2M)
	f)	What is NPN junction transistor?	(2M)

PART -B

2.	a)	Discuss briefly about resistance, inductance and capacitance parameters.	(7M)
	b)	Discuss about delta-star transformation for resistive network	(7M)
3.	a)	Explain the t Swinburn's test to predetermine the efficiency of a given motor	(7M)
	b)	Explain the flux control method used in the speed control of dc motor	(7M)
4.	a)	Explain constructional features of transformer and explain its principle of operation	(7M)
	b)	A 2000/200V, 20 kVA transformers has 66 turns in the secondary.Calculate primary and secondary currents. Neglect the losses.	(7M)
5.	a)	Explain the principle of operation of inductor motor	(7M)
	b)	Explain in detail about synchronous impedance method to determine regulation an alternator	(7M)
6.	a)	Explain operation of a diode with its characteristics	(7M)
	b)	What is amplifier and discuss any two applications of OP-AMP.	(7M)
7.	a)	Explain clearly how a transistor works as an amplifier.	(7M)
	b)	Discuss in detail about feedback amplifier.	(7M)
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