

10.09.2022

You tube link and contents for lectures on Basic Electrical Engineering (BEE) 2019 course

Lecture No.	YouTube link	Contents
UNIT I: Electromagnetism		
1	https://youtu.be/RGt01L7kT3Y	Magnetism & Related Terminology 1
2	https://youtu.be/m59yfEA36Hw	Magnetism & Related Terminology 2
3	https://youtu.be/hCQ3HRpQW9g	Magnetic Effect of Electric Current.
4	https://youtu.be/B0JwfZ8FSfM	Magnetic circuit
5	https://youtu.be/yQBfo_XuQPM	Numerical on magnetic circuits
6	https://youtu.be/E-H1LbpZzBQ	Dynamically induced emf
7	https://youtu.be/8eRFXb9trSE	Mutually & self induced emf
8	https://youtu.be/hbrMPDPnzfc	Self-inductance (L)
9	https://youtu.be/ADUakjutEaI	Coefficient of coupling
10	https://youtu.be/pXPpd4vqORY	Numericals on Coefficient of coupling
UNIT II: Electrostatics & AC Fundamentals		
11	https://youtu.be/ciTDGzd1sW0	Capacitance of parallel plate capacitor
12	https://youtu.be/8QRsaYH-saI	Numerical on capacitors
13	https://youtu.be/ja6j_TJov7E	Capacitors in series & parallel
14	https://youtu.be/DNruBORe5JM	Numerical on series parallel capacitor
15	https://youtu.be/DMtC7uVNNeI	Charging & discharging of capacitor.
16	https://youtu.be/MMjKCGpTIXA	AC Fundamentals: Generation of ac Emf
17	https://youtu.be/3PVxX7-bzRI	Different forms of emf & current equations.
18	https://youtu.be/zZJcV1I9VEU	Ac fundamental numericals
19	https://youtu.be/tdHo8xrT4vg	Numerical based on RMS & Average values
20	https://youtu.be/LUeCIh4XK9M	Phase ,phase difference, phase lead
21	https://youtu.be/nFE1U0cYnjs	Numericals on phase lag, lead & Inphase

Unit III: Single phase AC series Circuit		
22	https://youtu.be/dHrHe4k5dNE	1-ph ac series circuit: AC through pure Resistance (R)
23	https://youtu.be/34ExK9htUik	AC through pure Inductance (L)
24	https://youtu.be/57Gg8tXovr8	AC through pure Capacitance (C)
25	https://youtu.be/SgluRhwcJaE	AC through R-L series circuit, power expressions
26	https://youtu.be/6CD_E5ALW24	AC through R-C series circuit
27	https://youtu.be/vJ-rtrXbMcE	AC through R-L-C series circuit.
28	https://youtu.be/rixFAedWEIw	Series Resonance & complex power
29	https://youtu.be/HL_Yj6luJOY	Numerical on R-L & R-C series circuit
30	https://youtu.be/QcTnd3Z4F4U	Numerical on R-L-C series circuit
31	https://youtu.be/10O46NEWL4Y	Parallel circuit, Admittance & impedance triangles
UNIT IV: [A] Poly phase circuits		
32		Generation of 3-ph emf
33	https://youtu.be/Fpa5fusMFCM	Star & Delta connection of Armature winding
44	https://youtu.be/6Kb0IIAIZHM	3-ph Balanced Star connected load
35	https://youtu.be/3MmYxerLrHE	3-ph Balanced Delta connected load
UNIT IV: Part [B] 1-ph Transformer		
36	https://youtu.be/tAwWUGBRlHg	Principle of operation & construction single phase transformer
37	https://youtu.be/5ypa8AnN8i8	EMF Equation of single phase transformer
38	https://youtu.be/oqRG2AjfTCI	Losses & efficiency of Transformer
Unit V: DC Circuits		
39	https://youtu.be/TaM59Yu_zSQ	Classification of Electrical Network
40	https://youtu.be/9N267JZR910	Energy Sources: Ideal & Practical current & voltage sources
41	https://youtu.be/YNkVZE42MFA	D.C. Series & Parallel Circuits
42	https://youtu.be/GCAteSFMtso	Division of current in parallel circuit
43	https://youtu.be/st5jiXi_XZM	Numericals on Wheatstone Bridge
44	https://youtu.be/GUDNSOTytp8	Delta- Star conversion
45	https://youtu.be/9KvELLzgh8Q	Star-Delta conversion
46	https://youtu.be/IudSRUz0Pq0	Numericals on star-delta conversion

47	https://youtu.be/a92DTwvhew	Kirchhoff's Laws
48	https://youtu.be/aDw6kur_G6Q	Numericals on Kirchhoff's laws
49	https://youtu.be/BXxfjMPNlj4	Loop Analysis by Matrix Method
50	https://youtu.be/s7DN3Ix6Nhg	Numericals on Loop Analysis
51	https://youtu.be/tHigpRP3i0k	Superposition Theorem
52	https://youtu.be/DHd9w1A8490	Numericals on Superposition Theorem
53	https://youtu.be/HLUty0urIfo	Thevenin's Theorem
54	https://youtu.be/54kI-C3KXQU	Numericals on Thevenin's Theorem
UNIT VI: Work Power Energy & Batteries		
55	https://youtu.be/9IKVAh5WE1Y	Fundamental Concepts: Terminology
56	https://youtu.be/zxz9l3CCzBM	Effect of temperature on Resistance
57	https://youtu.be/ajWzOWdnlMA	Temperature coefficient of Resistance (TCR)
58	https://youtu.be/llmN5bQ-4Cl	Derivation of Temperature coefficient of Resistance (TCR)
59	https://youtu.be/eUhHmtFqia0	Numericals on TCR
60	https://youtu.be/So44BxSuIIE	Insulation resistance of single core cable
61	https://youtu.be/PZFLuwlr8-A	Energy conversion: Mechanical & Electrical System
62	https://youtu.be/isPKj9zr_Dw	Thermal system & Numerical
63	https://youtu.be/9dBGehjwe4A	Numericals on work power & energy

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