

ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں۔

Student Name:		Roll No:	Date: / /
سوج بدالیں، معاشرہ بدالیں	Class 2 nd Year	Ch#15	مثبت سوچیں، خوش رہیں
T- Marks - 40	Subject: Physics	Time: 45 - M	Obtained Marks:
Objective Type			
Q#1	Encircle the Correct Option		10X1=10

1. If inductor has N turns of a coil and \emptyset is magnetic flux through each turn when current I is flowing in it, then self inductance is given by.

a	1/N \emptyset	b	N \emptyset /I	c	N/I \emptyset	d	\emptyset /NI
	2. The value of induced emf in armature of N turns and area A rotating in magnetic field B with frequency f is given by.						
a	2 π fNIA B	b	2 π fN ² AB	c	NIfAB	d	4 π f ² NAB
	3. In choke of inductance L and resistance R.						
a	L is large and R is small	b	L is small and R is large	c	Both R and L are large	d	Both R and L are small
	4. Inductance is measured in.						
a	Volt	b	Ampere	c	Herry	d	Ohm
	5. A 50 mH coil carries current of 24 the energy stored in its magnetic field is.						
a	0.5j	b	0.1j	c	10j	d	100j
	6. Energy stored in inductor is given by.						
a	1/2cV ²	b	1/2LI ²	c	1/2BL ²	d	None
	7. An ideal transformer obey the law of conservation of .						
a	Flux	b	Momentum	c	Energy	d	Charge
	8. The device which converts electrical energy into mechanical energy is called .						
a	Transformer	b	Galvanometer	c	AC Generator	d	DC motor
	9. The core of transformer is made of iron because of .						
a	High melting point	b	Good conductor of electricity	c	Good conductor of Heat	d	Magnetic material
	10. Platinum wire becomes yellow at temperature? lenz law is actually the conservation of .						
a	Charge	b	Mass	c	Energy	d	Momentum

Q # 2	Short Questions	10 x 2 = 20
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- What is Motional emf?
- State and explain Faraday law.
- Does the induced emf always act to decrease the magnetic flux through a circuit?
- Show that Σ and $\Delta \emptyset/\Delta t$ have some units?
- What is direction of the current through resistor R when switch s is (a) closed (b) open.
- Does the induced emf always act to decrease the magnetic flux through circuit ?
- What is back emf motor?
- What is self induction ?
- What is difference b/w induced current and induced emf?
- Why the core of transformer is made of iron?

Q # 3	Long Questions	2 X 5 = 10
	<ol style="list-style-type: none"> State and explain lenz law? Solenoid has 250 turns and its inductance is 2.4mN.what is the flux through each turn .when the current is 2A?what is the induced emf when the current changes at $20AS^{-1}$ 	