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Roll No:	

### INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME)

GROUP-I

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

**MAXIMUM MARKS: 68** 

NOTE: - Write same question number and its part number on answer book, as given in the question paper.

#### **SECTION-I**

#### Attempt any eight parts.

 $8 \times 2 = 16$ 

- (i) Do electrons tend to go to region of high potential or of low potential? Explain.
- (ii) The potential is constant throughout a given region of space. Is the electrical field zero or non-zero in this region? Explain.
- (iii) Define charging and discharging of a capacitor.
- (iv) How sharks locate their prey? Explain briefly.
- (v) Can a charged particle move through a magnetic field without experiencing any magnetic force? If so then how?
- (vi) Why the resistance of an ammeter should be very low?
- (vii) How can you use a magnetic field to separate isotopes of chemical element? Explain.
- (viii) How might a loop of wire carrying a current be used as a compass? How could such a compass distinguish between north and south pole?
- (ix) Does the induced emf always act to decrease the magnetic flux through a circuit? Explain.
- (x) Can a transformer be used with D.C? Explain.
- (xi) Show that  $\mathcal{E}$  and  $\Delta \phi /_{\Delta t}$  have the same units.
- (xii) Can an emf be produced in a D.C. motor? Would it be possible to use motor as a generator or source? Explain.

#### 3. Attempt any eight parts.

 $8 \times 2 = 16$ 

- (i) What is the resistance of a Carbon resistor if its first band is red, second band is green, third band is orange and fourth band is gold?
- (ii) Write name of any two effects of current.
- (iii) Do bends in a wire affect its electrical resistance? Explain.
- (iv) What is Impedance? Write its SI unit.
- (v) At what frequency, will an inductor of inductance 1.0 H have a reactance of  $500\Omega$ ?
- (vi) How many times per second, will an incandescent lamp reach maximum brilliance when connected to a 50 Hz source?
- (vii) Define Elasticity and Plasticity.
- (viii) Distinguish between Crystalline and Amorphous solids and give an example for each.
- (ix) What is meant by Diamagnetic Substances? Give and example.
- (x) Write the truth table of NAND gate.
- (xi) Define open loop gain of an operational amplifier.
- (xii) Why ordinary Silicon diodes do not emit light? Explain.

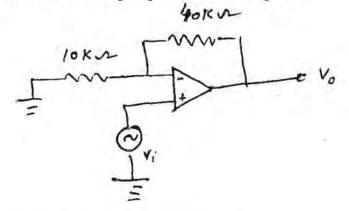
#### Attempt any six parts.

- Define work function and threshold frequency.
- (ii) Why don't we observe a Compton effect with visible light?
- (iii) When does light behave as a wave? When does it behave as a particle?
- (iv) Write down two properties and two uses of x rays.
- (v) What do we mean, when we say that the atom is excited?

- (vi) Differentiate between mass-defect and binding energy.
- (vii) Show that 1a.m.u = 931 MeV
- (viii) What factors make a fusion reaction difficult to achieve?
- (ix) How can radio activity help in the treatment of cancer?

#### **SECTION-II**

- NOTE: Attempt any three questions.  $3 \times 8 = 24$
- 5.(a) What is Rheostat? How can it be used as a variable resistor as well as potential divider? 1+4
- (b) Find the electric field strength required to hold suspended a particle of mass  $1.0 \times 10^{-6} kg$  and charge  $1.0 \mu C$  between two plates 10.0 cm apart.
- 6.(a) Define Electromagnetic Induction. Derive the expression for motional e.m.f. 1+4
- (b) What shunt resistance must be connected across a galvanometer of  $50.0\Omega$  resistance which gives full scale deflection with  $2.0 \, mA$  current, so as to convert it into an ammeter of range  $10.0 \, A$ ?
- 7.(a) Describe an R L C series circuit. Draw its impedance diagram and derive expression for its resonance frequency. Also write down its two properties. 1 + 1 + 2 + 1
- (b) Calculate the gain of non-inverting amplifier shown in figure.



- 8.(a) What is assumption of de-Broglie wavelength? How is it verified experimentally by Davisson and Germer experiment? 2 + 3
- (b) A 1.25 cm diameter cylinder is subjected to a load of 2500 kg.

  Calculate the stress on the bar in mega pascals.
- 9.(a) What are isotopes and how isotopes are separated by mass spectrograph? Explain. 1+4
- (b) Calculate the longest wavelength of radiation for the Paschen series. 3

3

	per Code mber: 4471		018 (A) R ATE PART-II (12 <sup>th</sup> CL	oll No
	YSICS PAPER-II IE ALLOWED: 201	(NEW SCHEN		LAND COLORED CO.
Not thin Cutt ques	e: You have four cho k is correct, fill that be ting or filling two or m stions as given in object BUBBLES are not fill	ices for each objection of the core bubbles will restrict type question p	ve type question as A, B, C t question number. Use ma ult in zero mark in that qu	k No credit will be awarded
(1)		rum is coated with a	layer of:-	
	(A) Copper	(B) Silver	(C) Selenium	(D) Gold
(2)	If time constant in R	C series circuit is sma	all, then capacitor is charged	
	(A) Slowly	(B) Rapidly	(C) At constant rate	(D) Intermittently
(3)	The current flowing	through each resistor	of equal resistance in parall	
	(A)Same	(B) Different	(C) Zero	(D) Infinite
(4)	Two parallel wires c	arrying currents in th	e same direction:-	( ),
	(A) Have no effect			them (D) Attract each other
(5)	Cathode ray oscillos		cting beam of	(=) i must each outer
	(A) Protons	(B) Electrons	(C) Neutrons	(D) Positrons
(6)	The mutual inductan	ce of the coils depend	ds upon:-	
	Value 3-5 street at Victoria		(C) Geometry of coil	(D) Stiffness of coil
(7)			hen energy stored in its mag	
	(A) 0.1 J	(B) 10 J	(C) 100 J	(D) 1000 J
(8)	The phase at the posit	tive peak is:-		
	(A) Zero	(B) π	(C) 2π	(D) $\frac{\pi}{2}$
(9)	In three phase A.C. st	upply, if first coil has	phase 0°, then the other two	
	(A) 0° and 120°		(C) 240° and 360°	
(10)			ins atoms nearly equal to:-	(D) $0^{\circ}$ and $360^{\circ}$
	(A) 10 <sup>8</sup> to 10 <sup>12</sup>	(B) 10 <sup>10</sup> to 10 <sup>14</sup>	(C) $10^{12}$ to $10^{16}$	(D) to 14
(11)		block of every comp		(D) $10^{14}$ to $10^{18}$
ic sx	(A) Semiconductor d			(D) 1 117
12)	Photodiode is used fo		(C) Capacitor	(D) Amplifier
	(A) Light		on (C) Radio waves	(D) G
13)	The rest mass of Phot		ii (C) Radio waves	(D) Sound waves
03/	(A) Infinite	(B) Small	(C) Zero	(D) $1.67 \times 10^{-27}  kg$
14)	Application of wave r		(0) 2010	(D) 1.07 x 10 $kg$
	(A) Photodiode	lattice of particle is.	(P) Simple microscope	
	(C) Compound micros	scope	(B) Simple microscope	
15)	X – rays are similar in		(D) Electron microscope	
		(B) $\beta$ - rays	(C) a - toys	(D) C-41 - 1
16)	Hydrogen bomb is an		(C) $\alpha$ – rays	(D) Cathode rays
~ ~ )	0.74 0.5 10 10 10 10 10 10 10 10 10 10 10 10 10		(C) Cl.:	
	(21) Indicat Hission	(B) Nuclear fusion	(C) Chain reaction	(D) Chemical reaction

(A) Carbon - 14

(B) Nickel - 63

(C) Cobalt – 60 (D) Strontium – 90

Pa	per Code		018 (A)	Roll No.
Nu	mber: 4473	3   INTERMEDIA	TE PART-II (12th C	LASS)
	YSICS PAPER	-II (NEW SCHEM	IE) GROUP-I	
	ME ALLOWED: 2	0 Minutes OB	JECTIVE	MAXIMUM MARKS: 17
Not	te: You have four c	hoices for each objecti	ve type question as A, B,	C and D. The choice which you
Cut	ang or mang two or	more bubbles will res	ult in zero mark in that	marker or pen to fill the bubbles question. Attempt as many
que	stions as given in ob	jective type question n	aper and leave others ble	nk No avadit will be amounted:
Q.N	0.1	illed. Do not solve qu	estions on this sheet of (	DBJECTIVE PAPER.
(1)	X – rays are simi	ilar in nature to:-		
	(A) $\gamma$ - rays	(B) $\beta$ - rays	(C) $\alpha$ - rays	(D) Cathode rays
(2)	Hydrogen bomb i	s an example of;-		
	(A) Nuclear fissio	n (B) Nuclear fusion	(C) Chain reaction	(D) Chemical reaction
(3)		ancer are treated by:-		
	(A) Carbon – 14	(B) Nickel - 63	(C) Cobalt - 60	(D) Strontium – 90
(4)	In photocopier, the	e drum is coated with a	ayer of:-	
	(A) Copper	(B) Silver	(C) Selenium	(D) Gold
(5)	If time constant in	RC series circuit is sma	ll, then capacitor is charge	ed:-
	(A) Slowly	(B) Rapidly	(C) At constant rate	(D) Intermittently
(6)		g through each resistor o	f equal resistance in paral	lel combination is:-
100	(A)Same	(B) Different	(C) Zero	(D) Infinite
(7)		carrying currents in the		
244	(A) Have no effec	t (B) Repel each other	r (C) Have no field aroun	d them (D) Attract each other
(8)		scope works by deflecti	ng beam of	
	(A) Protons	(B) Electrons	(C) Neutrons	(D) Positrons
(9)		nce of the coils depends		
(10)	(A) Density of coil	4 - 6 - No to 12 - (4 m)2 - 4 - 6	(C) Geometry of coil	(D) Stiffness of coil
(10)			hen energy stored in its ma	agnetic field is:-
/111	(A) 0.1 J	(B) 10 J	(C) 100 J	(D) 1000 J
(11)	The phase at the po	sitive peak is:-		
	(A) Zero	(B) π	(C) $2\pi$	(D) $\frac{\pi}{2}$
(12)	In three phase A.C.	supply, if first coil has	phase 0°, then the other to	wo coils will have phases:-
		(B) 120° and 240°		(D) 0° and 360°
(13)			ns atoms nearly equal to:-	
	(A) 10 <sup>8</sup> to 10 <sup>12</sup>	(B) 10 <sup>10</sup> to 10 <sup>14</sup>		(D) 10 <sup>14</sup> to 10 <sup>18</sup>
(14)	is the buildin	g block of every comple		(D) 10 to 10
		diode (B) Resistor	(C) Capacitor	(D) Amplifier
(15)		for the detection of:-		(D) implified
	(A) Light	(B) Thermal radiation	1 (C) Radio waves	(D) Sound waves
(16)	The rest mass of Pho			(2) Sound waves
	(A) Infinite	(B) Small	(C) Zero	(D) $1.67 \times 10^{-27}  kg$
(17)	Application of wave	e nature of particle is:-	Accessed 1	(2) INVIATO NE
	(A) Photodiode	•	(B) Simple microscope	
	(C) Compound micr	oscope	(D) Electron microscope	
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	per Code mber: 4475	INTERMEDIA	018 (A) TE PART-II (12 <sup>th</sup> (	Roll No
PH	YSICS PAPER-I	I (NEW SCHEM	IE) GROUP-I	
	E ALLOWED: 20		JECTIVE	MAXIMUM MARKS: 17
thinl Cutt ques case Q.No	k is correct, fill that be ting or filling two or m tions as given in object BUBBLES are not fil o.1	ubble in front of that nore bubbles will resu ctive type question pa led. Do not solve qu	question number. Use ult in zero mark in that aper and leave others b	B, C and D. The choice which as marker or pen to fill the bube question. Attempt as many clank. No credit will be award OBJECTIVE PAPER.
(1)	The phase at the pos	sitive peak is:-		1 29
	(A) Zero	(B) π	(C) $2\pi$	(D) $\frac{\pi}{2}$
(2)	In three phase A.C.	supply, if first coil has	s phase 0°, then the other	er two coils will have phases:-
	(A) 0° and 120°	(B) 120° and 240°	(C) 240° and 360°	(D) 0° and 360°
(3)	In ferromagnetic sul	ostances, domain cont	ains atoms nearly equal	to:-
	(A) $10^8$ to $10^{12}$	(B) 10 <sup>10</sup> to 10 <sup>14</sup>	(C) $10^{12}$ to $10^{16}$	(D) $10^{14}$ to $10^{18}$
(4)	is the building	block of every comp	lex electronic circuit.	And the second s
			(C) Capacitor	(D) Amplifier
(5)	Photodiode is used for	or the detection of:-		244-13-00-6
	(A) Light	(B) Thermal radiation	on (C) Radio waves	(D) Sound waves
(6)	The rest mass of Pho	ton is:-		40 Maria 1997
	(A) Infinite	(B) Small	(C) Zero	(D) $1.67 \times 10^{-27}  kg$
(7)	Application of wave	nature of particle is:-		7-10 S. V. S. OV. 11-2
	(A) Photodiode		(B) Simple microscop	ne
	(C) Compound micro	oscope	(D) Electron microsco	ope
(8)	X – rays are similar i	n nature to:-		
	(A) $\gamma$ -rays	(B) $\beta$ – rays	(C) $\alpha$ - rays	(D) Cathode rays
(9)	Hydrogen bomb is ar	example of:-		
	(A) Nuclear fission	(B) Nuclear fusion	(C) Chain reaction	(D) Chemical reaction
(10)	Various types of can	cer are treated by:-		
	(A) Carbon - 14	(B) Nickel 63	(C) Cobalt - 60	(D) Strontium – 90
(11)	In photocopier, the d	rum is coated with a la	ayer of:-	
	(A) Copper	(B) Silver	(C) Selenium	(D) Gold
12)	If time constant in Re	C series circuit is smal	ll, then capacitor is charg	ged:-
	(A) Slowly	(B) Rapidly	(C) At constant rate	(D) Intermittently
13)		through each resistor	of equal resistance in pa	arallel combination is:-
5.7.	(A)Same	(B) Different	(C) Zero	(D) Infinite
14)	The second secon	arrying currents in the		
	(A) Have no effect			and them (D) Attract each other
15)		scope works by deflect	ting beam of	
10	(A) Protons	(B) Electrons	(C) Neutrons	(D) Positrons
16)		ce of the coils depend	171 47 4	
17			(C) Geometry of coil	(D) Stiffness of coil
17)			nen energy stored in its r	nagnetic field is:-
	(A) 0.1 J	(B) 10 J	(C) 100 J	(D) 1000 J

19(Obj)(公公公)-2018(A)-20000 (MULTAN)

Pap	er Code		18 (A)	Roll No
Number: 4477		INTERMEDIATE PART-II (12th CLASS)		
PHY	SICS PAPER-II	(NEW SCHEM	E) GROUP-I	
	E ALLOWED: 20	Minutes OBJ	ECTIVE	MAXIMUM MARKS: 17
think Cutti ques	t is correct, fill that being or filling two or m tions as given in object BUBBLES are not fill	abble in front of that ore bubbles will resu tive type question pa	question number. Use lt in zero mark in that	C and D. The choice which you marker or pen to fill the bubbles. question. Attempt as many ank. No credit will be awarded in OBJECTIVE PAPER.
(1)	Cathode ray oscillos	cope works by deflecti	ng beam of	
	(A) Protons	(B) Electrons	(C) Neutrons	(D) Positrons
(2)	The mutual inductant	ce of the coils depends	upon:-	
	(A) Density of coil	(B) Material of coil	(C) Geometry of coil	(D) Stiffness of coil
(3)	A 50 mH coil carries	a current of 2.0 A. Ti	hen energy stored in its r	nagnetic field is:-
	(A) 0.1 J	(B) 10 J	(C) 100 J	(D) 1000 J
(4)	The phase at the posi-	itive peak is:-		
	(A) Zero	(B) π	(C) 2π	(D) $\frac{\pi}{2}$
(5)	In three phase A.C. s	supply, if first coil has	phase 0°, then the other	two coils will have phases:-
	(A) 0° and 120°	(B) 120° and 240°	(C) 240° and 360°	(D) 0° and 360°
(6)	In ferromagnetic sub	stances, domain conta	ins atoms nearly equal to	
		(B) 10 <sup>10</sup> to 10 <sup>14</sup>		(D) $10^{14}$ to $10^{18}$
(7)		block of every compl		(2) 10 10 10
		diode (B) Resistor	(C) Capacitor	(D) Amplifier
(8)	Photodiode is used for		(-)	(-)
	(A) Light	(B) Thermal radiation	on (C) Radio waves	(D) Sound waves
(9)	The rest mass of Pho		25 Avenue (call ca	X. S. M. American Committee
	(A) Infinite	(B) Small	(C) Zero	(D) $1.67 \times 10^{-27} kg$
(10)	Application of wave	nature of particle is:-	1	V. /
	(A) Photodiode	and or purious is:	(B) Simple microscope	e
	(C) Compound micro	oscope	(D) Electron microsco	
(11)	X – rays are similar		(2) Dietron interesee	pe
	(A) γ-rays	(B) $\beta$ – rays	(C) $\alpha$ -rays	(D) Cathode rays
(12)	Hydrogen bomb is a		735 = -353	(2) 24410401435
	(A) Nuclear fission		(C) Chain reaction	(D) Chemical reaction
(13)	Various types of can		(c) chain reaction	(D) Chemical reaction
	(A) Carbon – 14	(B) Nickel – 63	(C) Cobalt – 60	(D) Strontium – 90
(14)		rum is coated with a la		(D) Strontium – 70
	(A) Copper	(B) Silver	(C) Selenium	(D) Gold
15)			l, then capacitor is charg	And the second of
	(A) Slowly	(B) Rapidly	(C) At constant rate	(D) Intermittently
(16)			of equal resistance in pa	
	(A)Same	(B) Different	(C) Zero	(D) Infinite
(17)		arrying currents in the	Contract of the contract of th	(~) minute
				and them (D) Attract each other
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Roll No:

#### INTERMEDIATE PART-II (12th CLASS)

#### PHYSICS PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: - Write same question number and its part number on answer book, as given in the question paper.

#### SECTION-I

#### 2. Attempt any eight parts.

 $8 \times 2 = 16$ 

- (i) How can you identify that which plate of a capacitor is negatively charged?
- (ii) Electric lines of force never cross. Why?
- (iii) Prove that  $1eV = 1.6 \times 10^{-19} J$
- (iv) Explain briefly the role of deflection plates in inkjet printers.
- (v) Why does the picture on a T.V screen become distorted when a magnet is brought near it?
- (vi) How can you use a magnetic field to separate isotopes of chemical element?
- (vii) Explain briefly the working of electron gun in CRO.
- (viii) Differentiate between magnetic flux and flux density.
- (ix) Does the induced emf always act to decrease the magnetic flux through a circuit? Explain.
- (x) Is it possible to change both the area of the loop and the magnetic field passing through the loop and still not have an induced emf in the loop? Explain
- (xi) A glass rod of length L' is moving perpendicular to the applied magnetic field B with velocity V. Explain briefly about the induced emf in it.
- (xii) Define self inductance. Name any two factors upon which it depends.

#### 3. Attempt any eight parts.

 $8 \times 2 = 16$ 

- (i) Is the filament resistance lower or higher in a 500 W, 220 V light bulb than in a 100W, 220 V bulb?
- (ii) What is Wheatstone bridge? How can it be used to determine an unknown resistance?
- (iii) What is Thermistor? Write its two uses.
- (iv) What is the principle of Metal Detector? Write two uses of metal detector.
- (v) How can you establish the formula for power in A.C circuits? Explain the role of power factor in it.
- (vi) How does doubling of frequency affect the reactance of (a) An inductor (b) A capacitor?
- (vii) Define Polymerization Reaction. Write two examples of Polymeric solids.
- (viii) Define Brittle and Ductile Substances. Give two examples in each case.
- (ix) Why is it impossible to have an isolated north or south pole of magnet? Explain.
- (x) What is the role of potential barrier in a diode? How is it formed in a diode?
- (xi) Describe by a circuit diagram, how current flows in a n-p-n transistor?
- (xii) How is the XOR gate so called? Draw its symbol.

#### Attempt any six parts.

- (i) Differentiate between Photoelectric Effect and Compton Effect.
- (ii) What are the measurements on which two observers in relative motion will always agree upon? Explain
- (iii) Will bright light eject more electrons from a metal surface than dimmer light of the same colour?
- (iv) Write any two Postulates of Bohr's model of the Hydrogen atom.
- (v) What do we mean when we say that the atom is excited?

(vi)	A particle which produces more ionization is less penetrating. Explain.	
(vii)	Why are heavy Nuclei Unstable? Explain.	
(viii)	What is meant by Absorbed Dose? Write its unit.	
(ix)	Define Hadrons and Leptons.	
	SECTION-II	
NOTE: -	Attempt any three questions.	$3 \times 8 = 24$
5.(a)	Define Resistivity. How does it depend upon temperature? Also define temperature coefficient of resistance.	1 + 3 + 1 = 5
(b)	Determine the electric field at the position $\vec{r} = (4\hat{i} + 3\hat{j}) \ m$ caused by a point c	harge
	$q = 5.0 \times 10^{-6} C$ placed at origin.	3
6.(a)	Derive the relation for energy stored in an inductor.	5
(b)	A power line 10.0 m high carries a current 200 A. Find the magnetic field of the wire at the ground.	3
7.(a)	What is Transistor? Describe the use of transistor as an amplifier.  Also calculate its voltage gain.	1+2+2
(b)	What is the resonant frequency of a circuit which includes a coil of inductance $2.5H$ and a capacitance of $40\mu F$ ?	3
8.(a)	Define Positron. How Davison and Germer experiment confirms the wave nature of p	particles? 1+4
(b)	A 1.25 cm diameter cylinder is subjected to a load of 2500 Kg.	3

Define Spontaneous and Stimulated emissions. Explain the Laser action in detail.

A 75 kg person receives a whole body radiation dose of 24 m - rad, delivered by  $\alpha$  - particles

(b) The equivalent dose in rem.

Calculate (a) The absorbed energy in Joules and

9.(a)

(b)

for which RBE factor is 12.

20-2018(A)-11000 (MULTAN)

1+1+3

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Pa	per Code		018 (A) TE PART-II (12	Roll No.
Nu	umber: 4472	INTERMEDIA	1E PARI-II (12	CLASS)
	YSICS PAPER-	II (NEW SCHEM	IE) GROUI	2-П
	ME ALLOWED: 20		<b>JECTIVE</b>	<b>MAXIMUM MARKS: 17</b>
Cut	ting or filling two or is stions as given in object BUBBLES are not fi	bubble in front of that more bubbles will resective type question n	question number. ult in zero mark in aner and leave othe	A, B, C and D. The choice which you Use marker or pen to fill the bubbles that question. Attempt as many rs blank. No credit will be awarded in t of OBJECTIVE PAPER.
(1)	The value of $\mathcal{E}_r$ f	for air is:-		
	(A) 1.6	(B) 1.06	(C) 1.006	(D) 1.0006
(2)	In case of photocop	ier, a special dry, black	powder called tone	
	(A)Positive charge			(D) First positive then negative
(3)	The potential differ	rence between the head		
	(A) 500 V	(B) 600 V	(C) 700 V	(D) 800 V
(4)	The current flowing	g towards the reader ca		
	(A) Dot	(B) Dash	(C) Cross	(D) Line
(5)	The vector sum of	the electric force and m	A CONTRACTOR OF THE PARTY OF TH	
		e (B) Lorentz force		ce (D) Newton's force
(6)		energy density of solen		ce (b) Newton's force
	$(\Delta) \frac{B^2}{B^2}$	(B) $2\frac{B^2}{}$	(C) $\frac{1}{2} \frac{B^2}{A^2}$	
120	(A) $\frac{B^2}{\mu_o}$	$\mu_o$	$2 \mu_{o}$	(D) $B^2 \mu_o$
(7)		prevents the direction	of current from chan	ging is called:-
	(A) Commutator	(B) Rotor	(C) Armature	(D) Detector
(8)	The unit of impedan	ce is:-		
	(A) Volt	(B) Ohm	(C) Farad	(D) Watt
(9)	At resonance, the be	ehaviour of R - L - C	series circuit is:-	
	(A) Resistive	(B) Capacitive	(C) Inductive	(D) Modulative
(10)	Glass is also known	as:-		
	(A) Solid	(B) Liquid	(C) Solid liquid	(D) Gas
(11)	The open loop gain	of Op – Amp is of the o	order of:-	
	(A) $10^2$	(B) $10^3$	(C) $10^4$	(D) 10 <sup>5</sup>
(12)	The common emitter	r current amplification	factor $\beta$ is given by	
	-		7	
	(A) $\frac{I_C}{I_F}$	(B) $\frac{I_C}{I_R}$	(C) $\frac{I_E}{I_R}$	(D) $\frac{I_B}{I_E}$
(13)	The speed of earth ar	round its orbit is:-	- B	1 <sub>E</sub>
		(B) $20  km / s$	(C) $25  km/s$	(D) $30  km/s$
(14)	The unit of Plank's c		(C) 20 mm s	(D) 30 km / S
	(A) $JC$	(B) $J/C$	(C) $JS$	T/0
(15)		aser, the discharge tube	1-1	(D) $J/S$
	(A) 85 % of He		(C) 90 % of He	(D) 05 9/ of 11-
(16)	The half-life of rador		(5) 20 70 01 He	(D) 95 % of <i>He</i>
	(A) 3.8 hours	(B) 3.8 minutes	(C) 3.8 days	(D) 3.8 years
(17)		ation to which we are e		(D) 3.8 years
	(A) 1mSv per year			
	Por Jour	(=) 2 mor per year	(c) smbv per year	(D) 4 mSv per year
			A	

	aper Code umber: 4474	A TRIMINAL CONT.	018 (A) TE PART-II (12 <sup>th</sup>	Roll No
				CL/155)
	HYSICS PAPER	-II (NEW SCHEM		ш
No thi Cu que cas	tting or filling two or estions as given in obj e BUBBLES are not	hoices for each objective bubble in front of that more bubbles will result of the control of the	ilt in zero mark in th	MAXIMUM MARKS: 17 B, C and D. The choice which you se marker or pen to fill the bubbles at question. Attempt as many blank. No credit will be awarded in OBJECTIVE PAPER.
Q.1 (1)	.0.1			OBJECTIVE PAPER.
(1)		Laser, the discharge tub		
(2)	(A) 85 % of He	(B) 80 % of He	(C) 90 % of <i>He</i>	(D) 95 % of He
(2)	The half-life of rac	lon gas is:-	*:	
	(A) 3.8 hours	(B) 3.8 minutes	(C) 3.8 days	(D) 3.8 years
(3)	The background ra	diation to which we are	exposed, on the averag	ge is:-
	(A) 1mSv per year	(B) 2 mSv per year	(C) 3 mSv per year	(D) 4mSv per year
(4)	The value of $\mathcal{E}_r$ (A) 1.6	for air is:- (B) 1.06	(C) 1.006	(D) 1.0006
(5)	In case of photocop	oier, a special dry, black		
	(A)Positive charge			(D) First positive then negative
(6)	The potential differen	ence between the head ar		d can be up to:
	(A) 500 V	(B) 600 V	(C) 700 V	
(7)	The current flowin	g towards the reader can		(D) 800 V
302.	(A) Dot	(B) Dash		
(8)		ne electric force and mag	(C) Cross	(D) Line
	(A) Maximum force	(P) I crosts force	gnetic force is known a	IS:-
(9)	The everession for a	e (B) Lorentz force	(C) Deflecting force	(D) Newton's force
(-)	(A) $\frac{B^2}{\mu_o}$	nergy density of solenoid (B) $2\frac{B^2}{\mu_o}$	(C) $\frac{1}{2} \frac{B^2}{\mu}$	(D) $B^2\mu_o$
(10)	A simple device that	prevents the direction o	f current from changing	ng is called:-
	(A) Commutator	(B) Rotor	(C) Armature	(D) Detector
(11)	The unit of impedan	ce is:-	7,421,217	(2) 2010101
	(A) Volt	(B) Ohm	(C) Farad	(D) Watt
(12)	At resonance, the be	ehaviour of R-L-C se		(D) Wall
	(A) Resistive	(B) Capacitive	(C) Inductive	(D) Model at
(13)	Glass is also known		(C) maderive	(D) Modulative
	(A) Solid	The state of the s	(C) Colid lianid	(D) G
(14)		of Op – Amp is of the or	(C) Solid liquid	(D) Gas
()	(A) 10 <sup>2</sup>			6.02
(15)		(B) 10 <sup>3</sup> current amplification fac	(C) $10^4$	(D) $10^5$
		The second secon		
	(A) $\frac{I_C}{I_R}$	(B) $\frac{I_C}{I_B}$	(C) $\frac{I_E}{I}$	(D) $\frac{I_B}{I_B}$
(16)	The speed of earth ar	D	$I_B$	$I_{\mathcal{E}}$
		(B) $20  km / s$	(C) 25 bm / 5	m: 201 /
(17)			(C) 23 KM / S	(D) $30  km / s$
(17)	The unit of Plank's c	The state of		
	(A) $JC$	(B) $J/C$		(D) $J/S$
			20(Obj)(公公)-20	018(A)-11000 (MULTAN)

	aper Code umber: 4476		018 (A) TE PART-II (12 <sup>th</sup>	Roll NoCLASS)
TI	HYSICS PAPER- ME ALLOWED: 20	4	IE) GROUP- JECTIVE	
No thin Cur que cas	ote: You have four ch nk is correct, fill that I tting or filling two or i estions as given in obje	oices for each objective bubble in front of that more bubbles will rest ective type question na	ve type question as A, t question number. U ult in zero mark in th	MAXIMUM MARKS: 17 B, C and D. The choice which you see marker or pen to fill the bubbles at question. Attempt as many blank. No credit will be awarded in of OBJECTIVE PAPER.
(1)		ance is:-		
	(A) Volt	(B) Ohm	(C) Farad	(D) Watt
(2)	At resonance, the b	behaviour of R - L - C		(D) Water
	(A) Resistive	(B) Capacitive	(C) Inductive	(D) Modulative
(3)	Glass is also known	The state of the s	(c) inductive	(D) Modulative
	(A) Solid	(B) Liquid	(C) Solid liquid	(D) C
(4)		of Op – Amp is of the		(D) Gas
	(A) $10^2$			in the
(5)		(B) 10 <sup>3</sup>	(C) $10^4$	(D) $10^5$
(5)		er current amplification		
	(A) $\frac{I_C}{I_E}$	(B) $\frac{I_C}{I}$	(C) $\frac{I_E}{I}$	$I_B$
(6)		1 B	$I_B$	$I_E$
(6)	The speed of earth a			
	(A) $10  km/s$	(B) $20  km / s$	(C) $25  km/s$	(D) $30  km/s$
(7)	The unit of Plank's	constant "h" is:-		
(8)	(A) $JC$ In Helium – Neon L	(B) $J/C$ aser, the discharge tube	(C) $JS$ is filled with:-	(D) $J/S$
		(B) 80 % of He	(C) 90 % of He	(D) 95 % of <i>He</i>
(9)	The half-life of rado	n gas is:-		V. 4 . 5
	(A) 3.8 hours	(B) 3.8 minutes	(C) 3.8 days	(D) 3.8 years
(10)	The background rad	iation to which we are		
	(A) 1 <i>mSv</i> per year	(B) 2 mSv per year		
(11)	The value of $\mathcal{E}_r$ for	or air is:-		
	(A) 1.6	(B) 1.06	(C) 1.006	(D) 1.0006
(12)	In case of photocopi	ier, a special dry, black	powder called toner is	s given a:-
	(A)Positive charge	(B) Negative charge	(C) Neutral	(D) First positive then negative
(13)	The potential differen	ence between the head	and tail of an electric e	eel can be up to:-
	(A) 500 V	(B) 600 V	(C) 700 V	(D) 800 V
(14)	The current flowing	towards the reader can	be represented by a sy	mbol:-
	(A) Dot	(B) Dash	(C) Cross	(D) Line
(15)	The vector sum of the	ne electric force and ma	agnetic force is known	as:-
	(A) Maximum force			(D) Newton's force
(16)	The expression for en	nergy density of soleno		
	(A) $\frac{B^2}{}$	(B) $2\frac{B^2}{}$		(D) $B^2\mu_a$
(17)	$\mu_o$	$\mu_o$	(C) $\frac{1}{2} \frac{B^2}{\mu_o}$	
(11)		prevents the direction of		ng is called:-
	(A) Commutator	(B) Rotor	(C) Armature	(D) Detector

Pap	er Code		018 (A)	Roll No	
Nur	nber: 4478	INTERMEDIA	TE PART-II (12th	CLASS)	
PHY	SICS PAPER-I	I (NEW SCHEM	IE) GROUP-I	Í.	
TIM	E ALLOWED: 20	Minutes OB	<b>JECTIVE</b>	<b>MAXIMUM MARKS: 17</b>	
Cutti quest case Q.No	is correct, fill that being or filling two or nations as given in obje BUBBLES are not file.	nubble in front of that nore bubbles will rest ctive type question pa lled. Do not solve qu	t question number. Us ult in zero mark in tha aper and leave others l testions on this sheet of	B, C and D. The choice which yo be marker or pen to fill the bubble of question. Attempt as many blank. No credit will be awarded f OBJECTIVE PAPER.	
(1)	The vector sum of t	the electric force and n	nagnetic force is known	as:-	
	(A) Maximum force	e (B) Lorentz force	(C) Deflecting force	(D) Newton's force	
(2)	The expression for e	energy density of soler			
	(A) $\frac{B^2}{\mu_o}$	(B) $2\frac{B^2}{\mu_o}$	(C) $\frac{1}{2} \frac{B^2}{a}$	(D) $B^2\mu_a$	
(3)			$2 \mu_o$ of current from changing		
,	(A) Commutator	(B) Rotor	(C) Armature	(D) Detector	
(4)	The unit of impedan		(c) / Himature	(D) Detector	
	(A) Volt	(B) Ohm	(C) Farad	(D) Watt	
(5)		ehaviour of R – L – C		(D) Watt	
95	(A) Resistive	(B) Capacitive	(C) Inductive	(D) Modulative	
(6)	Glass is also known	STATE OF THE PROPERTY OF THE PARTY OF THE PA	(c) made ive	(D) Modulative	
***	(A) Solid	(B) Liquid	(C) Solid liquid	(D) Gas	
(7)		of Op – Amp is of the		(D) Gas	
	(A) $10^2$	(B) $10^3$	(C) 10 <sup>4</sup>	(D) 10 <sup>5</sup>	
(8)		1	factor $\beta$ is given by:-	(D) 10	
C=2	-	<u>-</u>		1.0	
	(A) $\frac{I_C}{I_R}$	(B) $\frac{I_c}{I_c}$	(C) $\frac{I_E}{I_R}$	(D) $\frac{I_B}{I_B}$	
(9)	The speed of earth a	- B	1 <sub>B</sub>	$I_E$	
	(A) $10  km/s$		(C) $25  km/s$	m 201	
10)			(C) 23 Km / S	(D) $30  km/s$	
10)	The unit of Plank's o		7 G	G. Calub	
11)	(A) JC In Helium – Neon L	(B) $J/C$ aser, the discharge tub	(C) $JS$	(D) $J/S$	
/	(A) 85 % of He	(B) 80 % of <i>He</i>		(D) 05 0/ 5 TF	
12)	The half-life of rador		(C) 90 % of <i>He</i>	(D) 95 % of <i>He</i>	
/	(A) 3.8 hours	(B) 3.8 minutes	(C) 3.8 days	(D) 2.0	
13)			exposed, on the average	(D) 3.8 years	
	(A) 1mSv per year	(B) $2mSv$ per year			
			(C) 3 mSv per year	(D) 4 mSv per year	
14)	The value of $\mathcal{E}_r$ for		Tan Taila		
15)	(A) 1.6	(B) 1.06	(C) 1.006	(D) 1.0006	
13)	(A)Positive charge		powder called toner is		
16)		(B) Negative charge		(D) First positive then negative	
10)	(A) 500 V		and tail of an electric ee		
17)		(B) 600 V	(C) 700 V	(D) 800 V	
11)	(A) Dot		be represented by a syr		
	(A) D0l	(B) Dash	(C) Cross	(D) Line	

#### BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN OBJECTIVE KEY FOR INTERMEDIATE ANNUAL/SUPPLY EXAMINATION, 2018

Name of Subject:		Physics	Session:		2016-2018
Group :	1st	New Scheme	Group:	2nd	New Scheme

Q.	Paper Code	Paper Code	Paper Code	Paper Code
Nos	4471	4473	4475	4477
1	С	Α	D	В
2	В	В	B	B, C
3	Α	С	С	A
4	D	C	D	D
5	B	В	A	В
6	B, C	Α	C	C
7	Α	D	D	D
8	D	В	A	A
9	B	B, C	В	С
10	C	A	С	D
11	D	D	C	Α
12	Α	B	В	
13	C	C	Α	В
14	D	D	D	C
15	A	A	В	В
16	B	C	B, C	A
17	C	D	A	D
8	1	,	1	,
9			1	
0		/		

Nos 4472		Paper Code	Paper Code	Paper Code
		4474	4476	4478
1	D	Α	В	
2	В	C	A	B
3	В	B	С	A
4	A	D	D	B
5	В	В	В	
6	C	B	D	A C
7	Α	Α	C	D
8	B	В	Α	В
9	Α	C	C	D
10	С	A	В	C/
11	D	В	D	
12	B	A	В	С
13	D	C	В	A C B
14	C	D	A	D
15	Α	B	В	В
16	С	D	ВС	В
17	B	C	A	A
18	,			,
9		/	/	
20	7	/	/ /	

ر شفکیت بات مح سوالید برچه امار کنگ Key ي ج في المتحان Physics ي جي الله المعنى المتحان 2018 كا المترسالانه المعنى المتحان 2018 كا اس سوالیہ پرچہ انشائیہ ومعروض (Subjective & Objective) کو بنظر عمیق چیک کرلیا ہے یہ پرچہ انشائیہ ومعروض (Set کیا گیا ہے۔ اس سوالیہ پر چہ میں کی قتم کی کوئی غلطی نہ ہے ۔ ہم نے سوالیہ پر چہ کا اردو اور انگریز Version بھی چیک کرلیا ہے۔ یہ Version آپس میں مطابقت رکھتے ہیں۔ نیز اس پر چہ ی معروض (Key (MCQs) کی بابت تصدیق کی جاتی ہے کہ اس میں بھی کسی قتم کی کوئی غلطی نہ ہے۔ مزید سے کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کروہ ہدایات وصول کر کے ان کا بغور مطالعہ کرلیا ہے اور ان کی روشی میں Key بنائی ہے۔ نیز سب ایگزامیز زکیلے تفصیلی مارکنگ بدایات/ مارکنگ سکیم/Rubrics بھی تیار کر دی گئی ہیں۔

37	ared & Checked By:		Dated: 22-6	5-2018	
S.#	Hame	Designation	Institution	Mobile No	Signature
1	Shahnd sphal.	A.P	Glovi-W.H.gsl.	030773600	
2	Ali Hussain Cillani	Associates.		738 1119	RIPO
3	Syed Tanuer Ahmad such	A-P	Govt. W. H. St. allege	0300 7348950	- Similes
4	PANACHA	A.P	Gort. mill at edlege		
5	Bashir Ahmad shatter	A.P	Gov. College	6305057	12 great
Re-CI	می کوئی تلطی نہے۔ hecked By	مے مل دور پرتلی کرای ہے۔	نى) معروضى "Key" اور بدايات كے حواله	له رو د (انتائه +معرو	يم زورجالاسوال
1	Abolul Oliani Ans.	A.P.	Got AH95 College	0305-	Makay
	12 1- 11/1	11	, ,,,	0470873	10

Roll No:

#### INTERMEDIATE PART-II (12th CLASS)

PHYSICS	DAPED-II	(OLD SCHEME)	GROUP-I
IIIIIII	I WI THEFT	(OLD SCHEME)	OHOUT I

TIME ALLOWED: 3.10 Hours

SUBJECTIVE

**MAXIMUM MARKS: 83** 

NOTE: - Write same question number and its part number on answer book, as given in the question paper.

#### SECTION-I

Attempt any Eight parts.

 $8 \times 2 = 16$ 

- (i) Define Potential Difference. Also define its unit.
- (ii) State Coulomb's Law and Gauss's Law.
- (iii) Suppose that you follow an electric field line due to positive point charge. Is electric field and potential increase or decrease?
- (iv) Do electrons tend to go to region of high potential or of low potential?
- (v) Define Galvanometer. Also define dead beat or stable galvanometer.
- (vi) Draw circuit diagram of voltage measuring part of Avometer.
- (vii) Suppose that a charge q is moving in a uniform magnetic field with a velocity V. Why there is no work done by the magnetic force?
- (viii) How can a current loop be used to determine the presence of a magnetic field in a given region of space?
- (ix) Write down any two methods for inducing emf.
- (x) Define Transformer. Write down names of two causes of power loss in transformer.
- (xi) Does the induced emf in a circuit depend on resistance of the circuit? Does the induced current depend on resistance of circuit?
- (xii) Can a D.C. motor be turned into a D.C generator? What changes are required to be done?

3. Attempt any Eight parts.

 $8 \times 2 = 16$ 

- (i) Do bends in a wire affect its electrical resistance? Explain.
- (ii) Define Drift Velocity. What is its value at room temperature?
- (iii) Find the resistance in a 440 W and 220 V lighted bulb.
- (iv) Find the frequency of an inductor of 1.0 H having a reactance of  $500 \Omega$ .
- (v) How many times per second will an incandescent lamp reach maximum brilliance when connected to a 50 Hz source?
- (vi) What is meant by A.M and F.M?
- (vii) Distinguish between Crystalline and Amorphous solids.
- (viii) Define Stress and Strain. Write their units.
- (ix) What are Super Conductors?
- (x) Why is the base current in a transistor very small?
- (xi) The anode of a diode is 0.2 V positive with respect to its cathode. Is it forward biased?
- (xii) Why charge carriers are not present in the depletion region?

4. Attempt any Six parts.

- (i) We do not notice the de Broglie wave length for a pitched cricket ball. Explain why?
- (ii) When does light behave as a wave? When does it behave as a particle?
- (iii) As a solid is heated it begins to glow, why does it appear red first?
- (iv) What are the advantages of lasers over ordinary light?
- (v) Write two uses of Laser.
- (vi) How can radioactivity help in the treatment of Cancer?
- (vii) What do we mean by term Critical Mass?
- (viii) Write the names of main types of Nuclear Reactors.
- (ix) Distinguish between Nuclear Fission and Nuclear Fusion.

### SECTION-II (Essay Type)

NOTE:	- Attemp	t any th	ree questions.	22 (2004) 2		3 = 24
5.(a)		The second secon		potential at a	certain point due to a point charge	e. 1+4
(b)	$1.0 \times 10^{-5}$	electron	ns pass through a conducto	or in 1 µS. Fi	nd the current in ampere flowing	
	through	the cond	uctor. Electronic charge i	$1.6 \times 10^{-19}$	C.	3
6.(a)	Describe	the met	thod to determine the $\frac{e}{m}$	of an electro	n.	5
(b)	The back What is	k emf in the back	a motor is 120 V when the emf when the motor turn	e motor is tur s 3360 rev pe	ning at 1680 rev per minute. r minute?	3
7.(a)	What is		y Rectification? Explain t	he action of s	emiconductor diode	5
(b)				which include	es a coil of inductance $2.5H$	
			40 μ F ?			3
8.(a)	Write a no	te on Bl	ack Body Radiation.			5
(b)	A 1.25 cr	n diamet	ter cylinder is subjected to	a load of 250	00 kg. Calculate the stress	
	on the ba	r in meg	a pascals.			3
9.(a) (b)					-Broglie's interpretation of Bohr's eam of $\gamma$ – rays by a factor 0.4.	s orbits. 5
	Find half	value th	ickness of lead sheet which	h will reduce	the intensity to half of its initial v	alue. 3
			SECTION-I	II (PRACT	TICAL)	
10. (a)	Give ans	wers to	o any Four.		4 >	×2 = 8
(iii) I	Define Volt	and Oh	m. (iv) What is	OR Gate? W	le does not conduct when it is revertite its truth table.	
is	s adjusted.	Why?	(vi) Draw the circuit di	agram of Hal		
					? (viii) Is tungsten filament an Oheen current and capacitance when	
		n the brie		OR of variation o	of photoelectric current with	3
			ns given below on the bas	is of the follo	wing graph.	4
	Graph-A	(i)	What do you infer from		(ii)Find the slope of the graph.	OR
	Graph-B	(i)	What do you infer from		(ii) Find the slope of the graph.	
		Graj	ph-A	OR	Graph-B	

Paper Code		2018 (A)	Roll No.	
Number 84	71 INTERMED	MATE DADT II	(12th CT ACC)	

Pa	per Code	20	018 (A)	Roll No
Nu	mber: 8471	INTERMEDIA	TE PART-II (12 <sup>th</sup>	CLASS)
	YSICS PAPER-		ME) GROUP-I	
	ME ALLOWED: 20		<b>OBJECTIVE</b>	MAXIMUM MARKS: 17
Cut as g BUI	ting or filling two or in the control of the contro	sircle in front of that of more circles will result question paper and l Do not solve question	question number. Use It in zero mark in that eave others blank. No on on this sheet of OBJ	
(1)	If the distance betw	een two charges is dou	abled, the electric force	between them will become:-
	(A) Half	(B) Twice	(C) Four times	(D) One fourth
(2)	The work done in the electric field is	noving a unit positive a measure of:-	charge from one point t	o another against
	(A) Capacitance	(B) Resistance	(C) Electric intensity	(D) Potential difference
(3)	bulb has th	e least resistance.		
	(A) 100 watt	(B) 200 watt	(C) 500 watt	(D) 1000 watt
(4)	In order to increase	the range of an ammet	er, the shunt resistance	is:-
	(A) Decreased (B)	Increased (C) Kept	constant (D) Some tin	nes increased and sometimes decreased
(5)		e a long solenoid is:-		
	(A)Uniform	(B) Non – uniform	(C) Circular	(D) Negligible
(6)	The direction of ind This is the statement	uced current is such that of:-	at it opposes the cause v	
	(A) Faraday's Law	(B) Ampere's Law	(C) Lenz's Law	(D) Gauss's Law
7)	A motor is a device	which converts electric	cal energy into:-	
	(A) Heat energy	(B) Light energy	(C) Chemical energy	(D) Mechanical energy
8)	The process of comb	ining the low frequenc		quency signal is called:-
	(A) Amplification	(B) Rectification	(C) Modulation	(D) Resonance
9)	In a three phase A.C	generator, the phase d	lifference between each	pair of coil is equal to:-
	(A) 45"	(B) 90°	(C) 120"	(D) 180"
10)	When a stress chang	es the length of a body		(2) 100
			stress (C) Shear stress	(D) Tensile stress
11)			m at room temperature	
	(A) 0.3 V	(B) 0.5 V	(C) 0.7 V	(D) 0.9 V
12)	In P – type substance	es majority charge carr		(2) 0.5 1
	(A) Electrons	(B) Protons	(C) Positrons	(D) Holes
13)	A positron is an antij	4 3 2 2 2 2 2 2	(-)	(D) Holes
	(A) Electron	(B) Proton	(C) Neutron	(D) Photon
(4)	Pair production can t	3.5%	(=) =	(D) I liotoli
	(A) X – rays	(B) Alpha rays	(C) Beta rays	(D) γ – rays
5)		ischarge tube contains	10 To	w// ruys
24	(A) 15 %	(B) 18 %	(C) 25 %	(D) 95 0/
6)		s beta particle then its	The Part of the Control of the Contr	(D) 85 %
		bette particle then its	atomic mass;-	

(

(17)

(D) Increases by 1

(D) Three neutrons

(A) Remains same (B) Decreases by 1. (C) Decreases by 2

(A) One neutron (B) Two neutrons (C) No neutron

The isotopes of  $\del{H}$  contain:-

2018 (A)

Roll No.	

Number:

## 8473 INTERMEDIATE PART-II (12th CLASS)

TI	ME ALLOWED: 20		<b>OBJECTIVE</b>	MAXIMIM MARKS: 17
Cu as g BU	tting or filling two or given in objective type BBLES are not filled.	more circles will resu guestion paper and	question number. Us	B, C and D. The choice which you e marker or pen to fill the circles. t question. Attempt as many questions of credit will be awarded in access
(1)	No.1 In a three phase A.	C generator, the phase	difference between eac	ch pair of coil is equal to:-
	(A) 45°	(B) 90°	(C) 120°	
(2)		nges the length of a boo		(D) 180°
7.0			c stress (C) Shear stre	os (D) T
(3)			ium at room temperatur	
	(A) 0.3 V	(B) 0.5 V	(C) 0.7 V	(D) 0.9 V
(4)	In P – type substan	ces majority charge ca		(D) 0.9 V
	(A) Electrons	(B) Protons	(C) Positrons	(D) Holes
(5)	A positron is an an	CONTRACTOR OF THE PROPERTY OF	(0) 1 001110115	(D) Holes
	(A) Electron	(B) Proton	(C) Neutron	(D) Photon
(6)	Pair production car	take place by using:-	(-) , , , , , , , , , , , , , , , , , , ,	(D) I noton
	(A) X – rays	(B) Alpha rays	(C) Beta rays	(D) $\gamma$ -rays
(7)	Helium Neon laser	discharge tube contain		(D) / Tays
	(A) 15 %	(B) 18 %	(C) 25 %	(D) 85 %
(8)	When a nucleus en	nits beta particle then i		(D) 85 76
			(C) Decreases by 2	(D) Increases by 1
(9)	The isotopes of ${}^{1}H$		(=) = **********************************	(D) increases by 1
	(A) One neutron	(B) Two neutrons	(C) No neutron	(D) There was to
(10)	The state of the s			(D) Three neutron between them will become:-
	(A) Half	(B) Twice	(C) Four times	(D) One fourth
(11)	The work done in n the electric field is a	noving a unit positive of	charge from one point to	
	(A) Capacitance	(B) Resistance	(C) Electric intensity	(D) Potential difference
(12)	bulb has the	least resistance.		
	(A) 100 watt	(B) 200 watt	(C) 500 watt	(D) 1000 watt
(13)	In order to increase t	he range of an ammete	r, the shunt resistance i	s:-
	(A) Decreased (B)	Increased (C) Kept of	constant (D) Some tim	es increased and sometimes decreased
(14)	Magnetic field inside	a long solenoid is:-		
	(A)Uniform	(B) Non – uniform	(C) Circular	(D) Negligible
(15)	The direction of indu This is the statement	iced current is such that of:-	t it opposes the cause w	which induces it.
	(A) Faraday's Law	(B) Ampere's Law	(C) Lenz's Law	(D) Gauss's Law
(16)		which converts electric	al energy into:-	1
	(A) Heat energy	(B) Light energy	(C) Chemical energy	(D) Mechanical energy
(17)		ning the low frequency	signal with a high freq	uency signal is called:-
	(A) Amplification	(B) Rectification	(C) Modulation	(D) Resonance
		19(Obj)	(\$\frac{1}{2}\)-2018(A)-500	(MULTAN)

Paper Code		2018 (A)	Roll No.	
Number:	8475	INTERMEDIATE PART-II	(12th CLASS)	

Nı	ımber:	8475	INTERMEDIA	TE PART-II (12 <sup>th</sup>	CLASS)
TIN No	ME ALLO te: You ha	ve four cho	Minutes pices for each objective	OBJECTIVE ve type question as A.	MAXIMUM MARKS: 1
Cut as g BU	ting or filli given in obje	ng two or nective type	arcle in front of that of the control of the contro	question number.  Use It in zero mark in that	marker or pen to fill the circles, question. Attempt as many question
(1)		is a device	which converts electri	cal energy into:-	
	(A) Heat		(B) Light energy		y (D) Mechanical energy
(2)	The proc	ess of comb	70 10 100 100 100 100		requency signal is called:-
		olification		(C) Modulation	(D) Resonance
(3)	In a three	e phase A.C	generator, the phase		n pair of coil is equal to:-
	(A) 45°		(B) 90°	(C) 120°	(D) 180°
(4)	When a s	tress change	es the length of a body		(2) 100
				stress (C) Shear stres	s (D) Tensile stress
(5)				ım at room temperature	
	(A) 0.3 V		(B) 0.5 V	(C) 0.7 V	(D) 0.9 V
(6)	In P – ty	pe substance	es majority charge car	riers are:-	(0) (0)
	(A) Elec		(B) Protons	(C) Positrons	(D) Holes
(7)	A positro	n is an anti	particle of:-		(-)
	(A) Elec	tron	(B) Proton	(C) Neutron	(D) Photon
(8)	Pair prod	uction can t	take place by using:-		(1)
	(A) X - r	ays	(B) Alpha rays	(C) Beta rays	(D) $\gamma$ -rays
(9)	Helium N	Neon laser d	ischarge tube contains	s neon:-	
	(A) 15 %		(B) 18 %	(C) 25 %	(D) 85 %
10)	When a n	ucleus emit	s beta particle then its		(-) 30 /0
	(A) Rema			(C) Decreases by 2	(D) Increases by 1
11)	The isotop	pes of  H o			, , , , , , , , , , , , , , , , , , , ,
	(A) One n	eutron	(B) Two neutrons	(C) No neutron	(D) Three neutron
12)	If the dista	ance betwee		The second secon	between them will become:-
	(A) Half		3227 22 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(C) Four times	(D) One fourth
13)	The work	done in mo		harge from one point to	
	(A) Capac	citance	(B) Resistance	(C) Electric intensity	(D) Potential difference
14)	bi	ulb has the l	east resistance.		
	(A) 100 w	vatt	(B) 200 watt	(C) 500 watt	(D) 1000 watt
15)	In order to	increase th	e range of an ammeter	r, the shunt resistance is	X-
	(A) Decrea	ased (B) I	ncreased (C) Kept co	onstant (D) Some time	es increased and sometimes decreased
(6)			a long solenoid is:-		

The direction of induced current is such that it opposes the cause which induces it. (17)This is the statement of:-(A) Faraday's Law (B) Ampere's Law (C) Lenz's Law

(A)Uniform

(D) Gauss's Law

(B) Non – uniform (C) Circular

(D) Negligible

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Roll	No.	

-	umber: 84/		IATE PART-II (12	th CLASS)
PI	HYSICS PAPEL	R-II (OLD SCHI	EME) GROUP	P-I
II N	ME ALLOWED:	20 Minutes	<b>OBJECTIVE</b>	MAXIMUM MARKS: 17
as BU	tting or filling two o given in objective ty BBLES are not fille	r more circles will res	ult in zero mark in th	A, B, C and D. The choice which you see marker or pen to fill the circles. at question. Attempt as many questions No credit will be awarded in case OBJECTIVE PAPER.
(1)	10.1			
(-)		ase the range of an amn		
(2)	Magnetic field in	side a long solenoid is:	of constant (D) Some	times increased and sometimes decreased
	(A)Uniform			
(3)	100000000000000000000000000000000000000	(B) Non – uniform		(D) Negligible
7-8	This is the statem	nduced current is such tent of:-	that it opposes the caus	e which induces it.
		w (B) Ampere's Law		(D) Gauss's Law
(4)	A motor is a device	ce which converts electronic	rical energy into:-	
	(A) Heat energy	(B) Light energy	(C) Chemical energ	gy (D) Mechanical energy
(5)	The process of con	mbining the low frequen	ncy signal with a high	frequency signal is called:-
	(A) Amplification	(B) Rectification	(C) Modulation	(D) Resonance
(6)	In a three phase A	.C generator, the phase	difference between each	ch pair of coil is equal to:-
	(A) 45°	(B) 90°	(C) 120°	(D) 180°
(7)	When a stress char	nges the length of a bod	ly, it is called:-	(=) 100
		l stress (B) Volumetri		SS (D) Tensile strass
(8)	The value of poten	tial barrier for germani	um at room temperatur	e is:-
	(A) 0.3 V	(B) 0.5 V	(C) 0.7 V	(D) 0.9 V
(9)	In P – type substan	ces majority charge car		(0) 0.5
	(A) Electrons	(B) Protons	(C) Positrons	(D) Holes
(10)	A positron is an an	tiparticle of:-	2030 100 000	(2) Holes
	(A) Electron	(B) Proton	(C) Neutron	(D) Photon
(11)	Pair production car	take place by using:-	4-7-03-03-03-03-03-03-03-03-03-03-03-03-03-	(D) I noton
	(A) X – rays	(B) Alpha rays	(C) Beta rays	(D) $\gamma$ - rays
(12)	Helium Neon laser	discharge tube contains		(D) / -lays
	(A) 15 %	(B) 18 %	(C) 25 %	(D) 85 %
(13)	When a nucleus em	its beta particle then its		(D) 83 %
	(A) Remains same		(C) Decreases by 2	(D) Ingresses I I
(14)	The isotopes of ${}_{1}^{1}H$		(a) Decreases by 2	(D) Increases by 1
	(A) One neutron	(B) Two neutrons	(C) No neutron	(D) There are to
(15)	If the distance between		oled, the electric force b	(D) Three neutron between them will become:-
	(A) Half	(B) Twice	(C) Four times	
(16)	The work done in n the electric field is a	noving a unit positive of	harge from one point to	(D) One fourth another against
	(A) Capacitance	(B) Resistance	(C) Electric intensity	(D) Detect 1 1/22
(17)		least resistance.	(c) Electric intensity	(D) Potential difference
	(A) 100 watt	(B) 200 watt	(C) 500 watt	(D) 1000 watt

Roll No:

#### INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-II

TIME ALLOWED: 3.10 Hours

**SUBJECTIVE** 

**MAXIMUM MARKS: 83** 

NOTE: - Write same question number and its part number on answer book, as given in the question paper.

**SECTION-I** 

2. Attempt any Eight parts.

 $8 \times 2 = 16$ 

- (i) Write the formula for capacitance of equivalent capacitor of three capacitors with capacitances  $C_1$ ,  $C_2$  and  $C_3$  for their (i) Parallel combination (ii) Series combination
- (ii) What is Xerograph?
- (iii) How can you identify that which plate of a capacitor is positively charged?
- (iv) Electric lines of force can never cross each other. Why?
- (v) What is stable or dead beat galvanometer?
- (vi) How can we increase the range of an Ammeter and voltmeter?
- (vii) A plane conducting loop is located in a uniform magnetic field that is directed along X axis. For what orientation of the loop is the flux a maximum? For what orientation is the flux a minimum?
- (viii) Suppose that a charge q is moving in a uniform magnetic field with velocity V. Why is there no work done by the magnetic force that acts on the charge q?
- (ix) What is back motor effect in generator?
- (x) What is Mutual Inductance? Define its unit.
- (xi) When an electric motor, such as an electric drill, is being used, does it also act as a generator? If so what is the consequence of this?
- (xii) Is it possible to change both the area of the loop and magnetic field passing through the loop and still not have an induced emf in the loop?

3. Attempt any Eight parts.

 $8 \times 2 = 16$ 

- (i) What are the difficulties in testing whether the filament of a lighted bulb obeys Ohm's law?
- (ii) Explain why the terminal potential difference of a battery decreases when the current drawn from it is increased?
- (iii) Define Electrical Power and Power dissipation in resistors.
- (iv) How the reception of a particular radio station is selected on your radio set?
- (v) What is meant by A.M and F.M?
- (vi) What is Choke? Write its main uses.
- (vii) Define the modulus of elasticity. Show that units of modulus of elasticity and stress are same.
- (viii) Distinguish between crystalline solid and amorphous solid.
- (ix) Define Proportional limit and ultimate tensile strength (UTS).
- (x) Why charge carriers are not present in the depletion region?
- (xi) Write the truth table of NAND gate. Also write its mathematical notation.
- (xii) What is the net charge on a n type or a p type substance?

Attempt any Six parts.

- (i) Will higher frequency light eject greater number of electrons than low frequency light?
- (ii) What is meant by inertial and non-inertial frame of reference?
- (iii) If an electron and a proton have the same de-Broglie wavelength, which particle has greater speed?
- (iv) Define Metastable state and Population inversion.
- (v) How can the spectrum of Hydrogen contain so many lines although it contains one electron only?
- (vi) What do the terms "Parent Element" and "Daughter element" mean?

- (vii) Why are heavy Nuclei unstable?
- (viii) What fraction of a radioactive sample decays after two half lives have elapsed?
- (ix) Explain how alpha and beta particles may ionize an atom without directly hitting the electrons?

#### SECTION-II (Essay Type)

	SECTION-II (Essay Type)	
NOTE: -	Attempt any three questions.	$8 \times 3 = 24$
5.(a)	Define and explain resistivity. Explain its dependence upon temperature in detail.	5
(b)	Find the electric field strength required to hold suspended a particle of mass $1.0 \times 10^{-5}$	$0^{-6}$ kg
	and charge $1.0\mu C$ between two plates 10.cm apart.	3
6.(a)	What do you mean by a current generator? Write down the principle, construction a	ind
	working of an Alternating current generator.	1+1+1+2
(b)	A power line 10.0 m high carries a current 200 A. Find the magnetic field of	
	the wire at the ground.	3
7.(a)	Describe an R-L-C Series circuit. Derive the relation for resonance frequency in the	is circuit. 5
(b)	Calculate the gain of an amplifier in which the collector resistance $R_C$ is $5k\Omega$ .	
	The input resistance between the base and emitter of a typical transistor is $2.5 k\Omega$ as	nd
	the value of its $\beta = 100$ .	3
8.(a)	What is Semiconductor? How p-type and n-type semiconductors are formed	
	from a pure silicon crystal?	1 + 4
(b)	Find the mass $m$ of a moving object with speed $0.8c$ . Find the mass 'm' in	
	terms of rest mass $m_a$	3
9.(a)	What is nuclear reactor? Describe briefly the function of its four main parts.	5
(b)	The wavelength of $K$ $X$ – ray from Copper is $1.377 \times 10^{-10} m$ . What is the energy	

#### SECTION-III (PRACTICAL)

3

3

10. (a) Give answers to any Four.
 (i) What is shunt resistance?
 (ii) Draw circuit diagram for half deflection method.
 (iv) How is an ammeter connected in circuit?

(v) What is Neon flash lamp? (vi) What are Photoelectrons?

(vii) What are practical uses of potentiometer? (viii) What is OR gate?(b) Write down a brief procedure to find the resistance of voltmeter.

difference between the two levels from which this transition results?

Write down a brief procedure to find high resistance by using Neon Flash Lamp.

(c) Answer the questions given below on the basis of the following graph.

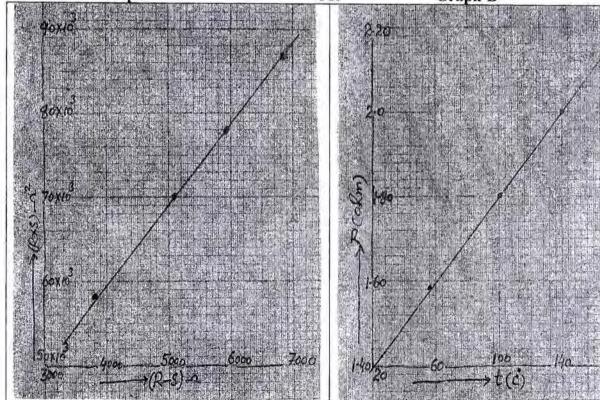
Graph-A

(i) What do you infer from the graph? (ii) Find the slope of the graph.

Graph-B

(i) What do you infer from the graph? (ii) Find the slope of the graph.

(i) What do you infer from the graph? (ii) Find the slope of the g Graph-A OR Graph-B



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# 8472 INTERMEDIATE PART-II (12th CLASS)

TII	IYSICS PAPE ME ALLOWED	20 Minutes		OBJECTIV	OUP-II VE	MAXIMUM MARKS: 17
Cur as g BU	tting or filling two	or more circles ype question pa	will result will result	uestion number t in zero mark in eave others blan	r. Use mark n that questi k No credit	nd D. The choice which you er or pen to fill the circles. on. Attempt as many questions
(1)		in RC – circuit	is small th	en the capacitor	is charged or	disahan J.
	(A) Rapidly	(B) Slow		(C) At constar		
(2)		f potential gradie	•	(C) At constan	it rate	(D) Intermittently
				force (C) Poter	ntial differen	ce (D) Electric intensity
(3)	A wire of resist	ance R is cut int	o three ean	al parts, which a	ra than ising	d in analysis
	the new resistan	ice is:-	(A) $\frac{R}{I}$	(B) $\frac{R}{3}$	(C) R	(D) I R
(4)	The magnetic fo	rce on an electro	on travellin	g with $v = 10^8 m$	s <sup>-1</sup> parallel to	o magnetic field of
	strength 1 wb m	-2 is:-	(A) Zero	(B) $10^{-12} N$	(C) $10^3$	$N$ (D) $1.6 \times 10^{-12} N$
(5)	A proton travels and directed out	from left to right of the paper. It	it in the pla	ne of the paper is	n a magnetic	field perpendicular to
	(A) Up	(B) Down	-	(C) Into the pa	per	(D) Out of the paper
(6)	Current is flowing	ng through a wire	e away fror	n the reader. Th	e direction of	f magnetic line of force is:-
	(A) Parallel to the	ne wire (B) Perj	pendicular	to the wire (C)	Clockwise	(D) Anti clockwise
(7)	The emf induced	in the coil of an	A.C. gene	rator is due to th	e phenomeno	on of:-
						induction (D) Self induction
(8)	In R–L–C series capacitor is:-	circuit at resona (A) 0°	nce, the ph (B) 9	ase angle betwee	en voltage aci	ross inductor and voltage across (D) 270°
(9)	In a three phase will be:-	A.C. generator, v	when angle	of 1st phase is 3	30°, then pha	se angle of 3rd phase of A.C.
	(A) 150°	(B) 210°		(C) 240°	(D) 2	70°
(10)	When a stress de	creases the lengt	th of the bo	dy, then this type	e of stress is	called:-
	(A) Volumetric s			(C) Tensile stres		pressional stress
(11)	The SI – unit of o	current gain is:-			10/10/12	•
	(A) Volt	(B) Amper	e	(C) Coulomb	(D) N	o unit
(12)	The reverse curre	ent through a sen	ni conducto	or diode is due to		
	(A) Minority ca					ectrons
(13)	If a material obje					
						rest mass (D) Infinite
(14)	The maximum K	E of Photo electr	ons depend	ds upon:-		(D) minic
	(A) Intensity of li				flight (D) I	Both A and B
(15)	An electron in Hy	drogen atom is	excited from	n ground state to	n = 4. How	w many spectral lines
	are possible?	(A) 3	(B) 4	(C) 5	(D) 6	spectral mies
(16)	The ionization pro					
	(A) 1	(B) 100		(C) 10 <sup>4</sup>		
(17)	The particles which				(D) Ze	ro
1	(A) Baryons	(B) Hadrons				
	() -ui joils	(D) Hadrons		(C) Mesons	(D) Le	ptons

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Paper Code	
	2 2-4

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(A)
(A)

Roll No.\_

## Number: 8474 INTERMEDIATE PART-II (12th CLASS)

	HYSICS PAPER-II (OLD SCHEME) GROUP-II ME ALLOWED: 20 Minutes OBJECTIVE MAXIMUM MARKS:	17
Not thin Cut as g BUI	ote: You have four choices for each objective type question as A, B, C and D. The choice which you have four choices for each objective type question as A, B, C and D. The choice which you have some circle in front of that question number. Use marker or pen to fill the circles. It is a string or filling two or more circles will result in zero mark in that question. Attempt as many question in objective type question paper and leave others blank. No credit will be awarded in case UBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.	u
(1)		
	(A) Electrostatic induction (B) Mutual induction (C) Electromagnetic induction (D) Self induction	n
(2)		
(3)	In a three phase A.C. generator, when angle of 1st phase is 30°, then phase angle of 3rd phase of A. will be:-	C.
	(A) 150° (B) 210° (C) 240° (D) 270°	
(4)		
	(A) Volumetric stress (B) Shear stress (C) Tensile stress (D) Compressional stress	
(5)	The SI – unit of current gain is:-	
	(A) Volt (B) Ampere (C) Coulomb (D) No unit	
(6)	The reverse current through a semi conductor diode is due to:-	
	(A) Minority carriers (B) Majority carriers (C) Holes (D) Electrons	
(7)	If a material object moves with speed of light, its mass becomes:-	
	(A) Equal to its rest mass (B) 4 times of its rest mass (C) Double of its rest mass (D) Infinite	
(8)	The maximum KE of Photo electrons depends upon:-	
	(A) Intensity of light (B) Frequency of light (C) Speed of light (D) Both A and B	
(9)	An electron in Hydrogen atom is excited from ground state to $n = 4$ . How many spectral lines	
	are possible? (A) 3 (B) 4 (C) 5 (D) 6	
(10)		
	(A) 1 (B) 100 (C) 10 <sup>4</sup> (D) Zero	
(11)	(D) Zeit	
	(A) Decrease of the control of the c	
(12)	(b) Leptons	
	(A) Paridly (D) Classic	
13)	(b) intermittently	
	(A) Electrostatic force (B) Electromotive force (C) Potential difference (D) Electric intensity	
14)		
	the new resistance is:- (A) $\frac{R}{I}$ (B) $\frac{R}{3}$ (C) $R$ (D) $IR$	
15)	The magnetic force on an electron travelling with $v = 10^8  ms^{-1}$ parallel to magnetic field of	
	strength $1 wb m^{-2}$ is:- (A) Zero (B) $10^{-12} N$ (C) $10^3 N$ (D) $1.6 \times 10^{-12} N$	
16)		
	(A) Up (B) Down (C) Into the paper (D) Out of the paper	
17)	Current is flowing through a wire away from the reader. The direction of magnetic line of force is:-	
	(A) Parallel to the wire (B) Perpendicular to the wire (C) Clockwise (D) Anti clockwise	

20(Obj)(公公)-2018(A)-100 (MULTAN)

. Paper Code	2018 (A)	Roll No.
Number: 8476	INTERMEDIATE PART-II (12 <sup>th</sup>	CLASS)
PHYSICS PAPER-I	I (OLD SCHEME) GROUP-	П
TIME ALLOWED: 20	Minutes OBJECTIVE	MAXIMUM MARKS: 17

think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER. Q.No.1 The magnetic force on an electron travelling with  $v = 10^8 \, ms^{-1}$  parallel to magnetic field of (1) strength 1 wb m-2 is:-(A) Zero (B)  $10^{-12} N$ (C)  $10^3 N$ (D)  $1.6 \times 10^{-12} N$ A proton travels from left to right in the plane of the paper in a magnetic field perpendicular to (2) and directed out of the paper. It is deflected:-(A) Up (B) Down (C) Into the paper (D) Out of the paper Current is flowing through a wire away from the reader. The direction of magnetic line of force is:-(3) (A) Parallel to the wire (B) Perpendicular to the wire (C) Clockwise (D) Anti clockwise The emf induced in the coil of an A.C. generator is due to the phenomenon of:-(4) (A) Electrostatic induction (B) Mutual induction (C) Electromagnetic induction (D) Self induction In R-L-C series circuit at resonance, the phase angle between voltage across inductor and voltage across (5)capacitor is:-(A) 0° (B) 90° (C) 180° (D) 270° In a three phase A.C. generator, when angle of 1st phase is 30°, then phase angle of 3rd phase of A.C. (6)will be:-(A) 150° (B) 210° (C) 240° (D) 270° When a stress decreases the length of the body, then this type of stress is called:-(7)(A) Volumetric stress (B) Shear stress (C) Tensile stress (D) Compressional stress (8) The SI - unit of current gain is:-(A) Volt (B) Ampere (C) Coulomb (D) No unit The reverse current through a semi conductor diode is due to:-(9) (A) Minority carriers (B) Majority carriers (C) Holes (D) Electrons If a material object moves with speed of light, its mass becomes:-(10)(A) Equal to its rest mass (B) 4 times of its rest mass (C) Double of its rest mass (D) Infinite The maximum KE of Photo electrons depends upon:-(11)(A) Intensity of light (B) Frequency of light (C) Speed of light (D) Both A and B An electron in Hydrogen atom is excited from ground state to n = 4. How many \_\_\_\_\_ spectral lines (12)are possible? (A) 3 (B) 4 (C) 5 The ionization produced by  $\gamma$  -rays in air in ion pair/mm is about:-(13)(A) 1 (B) 100  $(C) 10^4$ (D) Zero The particles which do not experience strong nuclear force are called:-(14)(B) Hadrons (C) Mesons (D) Leptons If time constant in RC - circuit is small, then the capacitor is charged or discharged:-(15)(A) Rapidly (B) Slowly (C) At constant rate (D) Intermittently The negative of potential gradient is:-(16)(A) Electrostatic force (B) Electromotive force (C) Potential difference (D) Electric intensity A wire of resistance R is cut into three equal parts, which are then joined in parallel, (17)the new resistance is:-(A)  $R_I$ (B)  $R_3$ (C) R

Pa	per Code		2018 (A)	Roll No	
Nu	mber: 8478	INTERMEDI	ATE PART-II (1	2 <sup>th</sup> CLASS)	
Not thin Cuti as gi	YSICS PAPER-IME ALLOWED: 20 te: You have four chook is correct, fill that citing or filling two or notiven in objective type of BLES are not filled.	Minutes sices for each objectircle in front of that sore circles will res question paper and	OBJECTIVE tive type question as t question number. ult in zero mark in the leave others blank.	MAXING A, B, C and D. The Use marker or penthat question. Attention No credit will be a	to fill the circles.  opt as many question  warded in case
(1)	An electron in Hydro	gen atom is excited	from ground state to	n = 4. How many	spectral lines
	are possible?	(A) 3 (B)		(D) 6	
(2)	The ionization prod	uced by $\gamma$ -rays in	air in ion pair/mm is a	about:-	
	(A) 1	(B) 100	(C) 10 <sup>4</sup>	(D) Zero	
(3)	The particles which	13.75	trong nuclear force ar		
	(A) Baryons	(B) Hadrons	(C) Mesons	(D) Leptons	
(4)	If time constant in R		then the capacitor is		d·-
	(A) Rapidly	(B) Slowly	(C) At constant r		ermittently
(5)	The negative of pote	ential gradient is:-			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	(A) Electrostatic for	ce (B) Electromoti	ve force (C) Potenti	al difference (D) El	ectric intensity
(6)		R is cut into three ed	qual parts, which are t	then joined in paralle	ıl,
(7)	The magnetic force strength $1 wb m^{-2}$ is:		elling with $v = 10^8 ms$ ero (B) $10^{-12} N$	하다보다 하다 보다 그 아이트 큐딩하다	ic field of 0) $1.6 \times 10^{-12} N$
(8)	A proton travels from and directed out of the	n left to right in the ne paper. It is deflec	plane of the paper in sted:-	a magnetic field perp	pendicular to
	(A) Up	(B) Down	(C) Into the pape	r (D) Out	of the paper
(9)			from the reader. The ar to the wire (C) C		
(10)	The emf induced in the				CIOCKWISC
			nduction (C) Electro		(D) Self induction
(11)	In R-L-C series circu	uit at resonance, the		voltage across induc	tor and voltage across
(12)	In a three phase A.C. will be:-	generator, when an	gle of 1st phase is 30°	$^{o}$ , then phase angle o	of 3rd phase of A.C.
	(A) 150°	(B) 210°	(C) 240°	(D) 270°	
(13)	When a stress decreas	ses the length of the	body, then this type of	of stress is called:-	
	(A) Volumetric stress	(B) Shear stress	(C) Tensile stress	(D) Compressional	l stress
(14)	The SI – unit of curre	nt gain is:-			
	(A) Volt	(B) Ampere	(C) Coulomb	(D) No unit	
(15)	The reverse current th	rough a semi condu	ctor diode is due to:-		
	(A) Minority carriers	s (B) Majority can	rriers (C) Holes	(D) Electrons	
(16)	If a material object me				
(17)	(A) Equal to its rest r. The maximum KE of			ouble of its rest mass	(D) Infinite

(A) Intensity of light (B) Frequency of light (C) Speed of light (D) Both A and B

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## BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN OBJECTIVE KEY FOR INTERMEDIATE ANNUAL/SUPPLY EXAMINATION, 2018

Name of Su			Session: 2016 - 2018
Group :	1st	old Scheme	Group: 2nd Old Scheme

Q.	Paper Code	Paper Code	Paper Code	Paper Code
Nos	8471	8473	8475	8477
1	D	C	D	A
2	D	D	C	A
3	D	A	C	C
4	A	D	D	D
5	A	A	A	C
6	C	D	D	C
7	D	A	A	D
8	C	A	D	A
9	C	C	A	D
10	D	5	A	A
11	A	D	C	D
12	D	D	D	A
13	A	A	D	A
14	D	A	D	C
15	A	C	A	D
16	A	D	A	0
17	C	C	c	D
18				
19				
20				

Q.	Paper Code	Paper Code	Paper Code	Paper Code
Nos	8472	8474		8478
1	A	C	A	D
2	D	C	B	A
3	A.B.C.D	D	C	D
4	Á	C	C	A
5	B	D	C	D
6	C	A	D	ABCD
7	C	D	C	Á
8	C	B	D	B
9	D	D	A	C
10	C	A	D	C
11	D	D	В	C
12	A	A	D	D
13	D	D	A	C
14	B	ARCD	D	D
15	D	Á	A	A
16	A	B	D	D
17	D	C	A,B,C,D	R
18			,,,	
19				
20				

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