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Q. Nos	944 7 1	Correct Anwser	Paper Code 4473	Correct	Paper Code 4475	CONFECT	Group: Paper Gode	CALL 1 Fee: 1
1	В	Faraday	В	Vo/52	D	Faraday's		
2	C	E= 1/26.	A	Zero	A	Becomes Zer	C o A	10 ms
3	C	103m5	C	0.71	B	Vo/52	В	R, = 10 R
4	A	Rs = Is Pg	D	1 to 106	A	Zero	$\frac{D}{D}$	Faraday.
5	В	parallel	C	Nounit		0.7 V	A	
6	D	Faradays	B	900c	D	1 to 106	B	Becomes 2
7	A	Bromes	A	Photoelech effect	" C	No unit	St. Country - Table	V./JZ
3	B	Vo / 52	D	1085	В	900'c	A C	zero O.7V
9	A	Zero	C	~ 1045	A	Photoelectric effects	D	
10	C	0.7V	A	Quarks	D	10-85	$\frac{c}{c}$	Ho 10
11	_ D	1 to 106	В	Faraday	C	1045	B	No uni
2	C	No unit	C	E= 0/20	A	Quarks		Photos 2
3	B	900°C		103ms'	В	Faraday	A D	Photoelec
4	A	Photoelectric effect	A	Rs=19 Rg		E = 6/2 E.	C	1045
5		10 5	B	parallel	C	10 ms		
6	<u>C</u> .	~1045	D	Faradays		$R_{s} = \frac{I_{\theta}}{I - I_{\theta}} R_{\theta}$	B	Quarks
7	A	Quarks	A	zero zero	B	Parallel	100	Fanday
8	_/		/	/	-	TAINTEK		E = 6/2 E
9	/		1	1	1	-/-	-/-	
0	/	1	1	1	1-1	-/		-

مر شیقات بات هی موالیہ برچد امارکگ Key بر نے مضمون فیز کسس بیچ معلی جو الرکٹ میم گردپ میں اعزمیذی پیلا سالانہ اسحان 2023 کا موالیہ برچہ افتا کیدومعروشی (Subjective & Objective) کو خطر میں چیکہ کرلیا ہے یہ بچہ Syllabus کے میں مطابق Sel کیا گیا ہے۔ اس مولیہ پرچه میں کسی تشم کی کوئی خلفی شد ہے۔ ہم نے سوالیہ پرچہ کا اردواور انگریزی Version بھی چیک کرلیا ہے۔ یہ Version کیس مطابقت رکھتے ہیں۔ بیز اس پرچہ کی معروضی (Key (MCQs کی باہت تصدیق کی جات ہے کہ اس میں بھی کسی حمر کی کوئی قاطمی نہ ہے۔ حزید سے کہ جم نے Key؛ نے سے متعلق وفتر کی جانب ہے تیار کروہ ہدایات یسول کرکے ان کا بغور مطابعہ کرمیا ہے اور ان کی روشی میں Key منائی ہے۔ نیز سب انگیزامیور ز کیلیے تفصیحی مارکٹ مدایات/مارکٹ عیم/Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

30/05/2023 Dated: S.# Name Designation Institution Mobile No Signature ISLAM AHMAD 1 Govt. WHI Multan 6242091 2 Valean Wals Govi Graduate Wiege of 301-140013 3 MAHMOOD AHMAD 4 WHI COS MLTH 03346013177 5

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INTERMEDIATE 1st ANNUAL EXAMINATION, 2023

Q.	Paper Code		Physic				Group;	IL
Nos	4472	Anwser	Paper Code 4474	Correct Anwser	Paper Code 4476	Correct Anwser	Paper Code 4478	Correct Anwsor
1_	B	q E/m	A	RLeinal	В	resistor	B	-
2	_ c	6 sec	B	77K	9	L-C circul.		Y- Plate
3	A	± 20%	C	Vo =- Vc		R-L rend	A	Increase
A	B	4-Plate of	0	IN a unit	В		D	Lenz's l
5	A	Increased	A	But	1.5	77K	B	Resista
6	D	Lenz's Law	C	zew		Vo = -Vcc	<u>. P</u>	F.C.
7	ß	Resister	9	Stran energy	0	No unit	A	R-L circu
8	9	L-C Circuit	A			Red	13	77 K
9	A	R-L circl	and the second s	500°C		zeno	c	Vo = - V
10	В	77 k	130000 00	forthic grap	<u>D</u>	High energy	D	No unit
11	c	Vos-Va	B	9.5/m	A	500€	A	Red
12	D		_c		4/0	perdin cequate	(3000
13		No unit	4	-1 20%	ß	WE/m	D	Stigh enco
14	4	Red	B	of CRE	c	6 sec	A	500°C
-+		zero	A	Increased	A	± 20%,		Threegrow
15	מ	Stigh enigh	0	Lengs law	B	4- Plate of	13	gE/m
16	A	500°C	B	Resisters	A	Increased		
17	C/D	Fout group	9	L-Circut	0	Lenz's Law		6sec
18				(,) (())	-7	- MT. Law	A	± 20%
9								
0								

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30/05/2023

INTERMEDIATE PART-II (IZ th Class) 2023 (1 th A) Roll Nor FIFTNE ALLOWED: 2.40 Hours SUBJECTIVE MAXIMUM MARKS: 68 NOTE: Write same question number and its parts number on answer book, as given in the question paper. SECTION-I 2. Attempt any eight parts. (ii) State Games's low. (iii) What is the function of ECG? (iv) Data and the state of the property o		141.0					110	\$100 mm
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								5
(b) Electrons in an X-ray tube are accelerated through a potential difference 3000V. If these electrons	(b)							
are slow down in a target, what will be the minimum wavelength of X-rays produced? 19-2023(1 st -A)-25000 (MULTAN)		are slow down in	a target, what	will be the mir				

INTERMEDIATE PART-II (12th Class)	2023 (1 st -A)	Roll No:
PHYSICS PAPER-II GROUP-II		
TIME ALLOWED: 2.40 Hours	SUBJECTIVE	MAXIMUM MARKS: 68

SECTION-I Attempt any eight parts. $8 \times 2 = 16$ (i) Suppose that you follow an electric field line due to a positive point charge. Do electric field increase or decrease? (ii) If a point charge q of mass m is released in a non-uniform field with field lines pointing in the same direction, will it make a rectilinear motion? (iii) Show that ohms times fared is equivalent to second. What is a test charge? Write its any two characteristics. (iv) How can you use a magnetic field to separate isotopes of chemical element?/ (v) (vi) Why the resistance of an ammeter should be very low? (vii) Define Lorentz force. Write role of each component of this force. A proton enters this page from left to right while magnetic field is out of the page. (viii) Prove that it will be deflected towards bottom of page. (ix) What factors make fusion reaction difficult to achieve? What is a radioactive tracer? Describe one application in medicine. (x) (xi) What are leptons? Name at least two leptons. (xii) Define nuclear activity. Write its SI unit. 3. Attempt any eight parts. $8 \times 2 = 16$ Is the filament resistance lower or higher in a 500W, 220V light bulb than in a 100W, 220V bulb? (i) How the bridge circuit is used to determine an unknown resistance? (ii) (iii) Why heat is produced in a conductor due to flow of electric current? Describe amplitude modulation with diagram. (iv) (v) Describe the condition which will make the reactance of capacitor small. Describe two advantages of a 3phase A.C. supply. (vi) (vii) Differentiate between crystalline and amorphous solids. (viii) Draw stress-strain curves for ductile and brittle materials. How can the conductivity of a semi-conductor be raised? (:x) (x) The anode of a diode is 0.2 volts positive with respect to its cathode. Is it forward biased? (xi) What is the biasing requirement of the junctions of a transistor for its normal operations? (xii) What is importance of use of a semi-conductor in electronic circuits? Explain. 4. Attempt any six parts. $6 \times 2 = 12$ (i) How can the spectrum of hydrogen contain so many lines, when hydrogen contain one electron? (ii) Will bright light eject more electrons from a metal surface than dimmer light of same colour? (iii) Why don't we observe Compton effect with visible light? Can an electric motor be used to drive an electric generator with the output from (iv) generator being used to operate the motor? In a certain region the earth's magnetic field point vertically downward. (v) When a plane flies due north, which wingtip is positively charged? (vi) What is the importance of minus sign in the expression? $\varepsilon = \frac{N\Delta\phi}{2}$ (vii) What is threshold frequency in photoelectric effect? (viii) What do you mean by annihilation of matter? (ix) Write down two postulates of Bohr's theory. SECTION-II NOTE: Attempt any three questions. $3 \times 8 = 24$ 5.(a)What is Wheatstone bridge? Explain and prove the principle of Wheatstone bridge. 5 Determine the electric field at the position $\ddot{r} \neq (4i + 3j)m$ caused by a point charge (b) $q = 5.0 \times 10^{-6} C$ placed at origin. 3 What is transformer? Derive its equation and discuss power losses in the transformer. 6.(a) The resistance of a galvanometer is 50 ohm and reads full scale deflection with a current of 2.0 mA. (b) Show by a diagram how to convert this galvanometer into voltmeter reading 200V full scale. 7.(a) What is an operational amplifier? Describe the use of operational amplifier as non-inverting O.P. amplifier and find its gain. 5 Λ 10mH, 20 Ω coil is connected across 240V and 180/ Hz source. (b) How much power does it dissipate? 3 8.(a) Derive an expression for strain energy in deformed material. 5 What is the de Broglie wavelength of an electron whose kinetic energy is 120 eV. (b) Write postulates of Bohr's Model. Prove that radii and energy of electron is quantized in hydrogen atom. 9.(a) (b) Find the mass defect and binding energy for tritium. If the atomic mass of tritium is 3.016049 U. Mass of neutron = 1.008665U, Mass of proton = 1.007276 U, Mass of electron = 0.00055 U

20-2023(15-A)-20000 (MULTAN)

Paper Code

Number: 4471

2023 (1st-A) INTERMEDIATE PART-II (12th Class)

Roll No:

PHYSICS

PAPER-II

GROUP-I

TIM	E ALLOWED: 20 Minutes	OBJEC			MARKS: 17
Q.No	You have four choices for each object is correct, fill that bubble in front of fill the bubbles. Cutting or filling two	that question nu	mber, on bub es will result i	ble sheet. Use m zero mark in tl	hat question.
S.#	QUESTIONS	A	В	C	D D
1	The concept of an electric field was introduced by:	Henry	Faraday	Watt	Oersted
2	Electric field intensity due to an infinite sheet of charge is:	$E = \frac{2\sigma}{\varepsilon_o}$	$E = 2\sigma\varepsilon_o$	$E = \frac{\sigma}{2\varepsilon_o}$	$E = \frac{\sigma}{\varepsilon_o}$
3	The value of drift velocity of electrons is of the order of:	10 ³ ms ⁻¹	$10^2 ms^{-1}$	10 3 ms ⁻¹	$10^{-2} ms^{-1}$
4	Formula for shunt resistance R_{χ} is:	$R_g = \frac{I_g}{I - I_g} R_g$	$R_{_{N}}=\frac{V_{_{\mathcal{B}^{0}}}}{I-I_{_{\mathcal{B}}}}R_{_{\mathcal{B}}}$	$R_{S} = \frac{I - I_{g}}{I_{g}} R_{g}$	$R_{s} = \frac{I - I_{g}}{I_{p}R_{g}}$
5	Voltmeter is connected in the circuit in:	Perpendicular	Parallel	Series	Anti parallel
6	The principle of an A.C. generator is base on:	Mutual Induction	Lenz's law	Self induction	Faraday's law of electromagnetic induction
7	When the motor is just started, back emf always:	Becomes zero	Decreases	Remains same	Increases
8	Root mean square value of an alternating voltage is:	$\frac{V_a^2}{\sqrt{2}}$	$\frac{V_n}{\sqrt{2}}$	$\frac{V_o^2}{2}$	$\frac{V_o}{2}$
9	Power dissipated in a pure inductor is:	Zero	Infinite	Small	Maximum
10	The value of potential barrier for silicon at room temperature is:	0.37	0.5V	0,7 <i>V</i>	0.91
11	The ratio of impurity addition in an intrinsic semiconductor is:	1 to 10 ³	1 to 10 ⁴	1 to 10 ⁵	1 to 10°
12	SI unit of current gain of transistor is:	Coulomb	Ampere	No unit	Farad
13	When platinum wire is heated, it appears cherry red at temperature:	500°C	900° C	1100°C	1300° <i>C</i>
14	A photocell is base on:	Photoelectric effect	Polarization	Time dilation	Compton effec
15	Normally an electron can reside in excited state for about:	10 ⁻² s	10 ⁻⁴ s	10 * s	10 ⁸ s
16	Dead time of the counter is:	~10 ⁻⁷ s	~10 fs	~10 4 s	$\sim 10^{-5} s$
17	The building blocks of protons and neutrons are called:	Quarks	Electrons	Protons	Ions

(115)

2023 (1st-A) Paper Code INTERMEDIATE PART-II (12th Class) Roll No: Number: 4473 GROUP-I PAPER-II PHYSICS MAXIMUM MARKS: 17 OBJECTIVE TIME ALLOWED: 20 Minutes You have four choices for each objective type question as A, B, C and D. The choice which you think O.No.1 is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. QUESTIONS S.# V_{o} Root mean square value of 1 an alternating voltage is: Small Maximum Infinite Power dissipated in a pure inductor is: Zero 2 0.9V0.7 V0.5V0.3VThe value of potential barrier for 3 silicon at room temperature is: 1 to 10⁶ 1 to 10⁵ 1 to 103 1 to 104 The ratio of impurity addition in 4 an intrinsic semiconductor is: Farad No unit Coulomb 5 SI unit of current gain of transistor is: Ampere 1300° C 900°C 1100°C When platinum wire is heated, it 500°C 6 appears cherry red at temperature: Compton effect Photoelectric Polarization Time A photocell is base on: 7 dilation effect 10 8 s 10 6 5 Normally an electron can reside in 10 4 5 8 excited state for about: $\sim 10^{-5} s$ $\sim 10^{-6} s$ $\sim 10^{-4} s$ Dead time of the counter is: ~10 's 9 Protons lons Electrons The building blocks of protons and Quarks 10 neutrons are called: Oersted Watt Faraday The concept of an electric field was Henry 11 introduced by: $E = \frac{2\sigma}{\sigma}$ Electric field intensity due to an $E = 2\sigma\varepsilon_{A}$ 12 infinite sheet of charge is: $10^{-2} ms^{-1}$ The value of drift velocity of electrons $10^{-3} \, ms^{-1}$ $10^3 \, ms^{-1}$ 13 is of the order of: Formula for shunt resistance R_s is: Voltmeter is connected in the Perpendicular Parallel Series Anti parallel 15 circuit in: Self Faraday's law Mutual Lenz's law The principle of an A.C. generator is 16 Induction induction of base on: electromagnetic induction Remains Increases Becomes Decreases When the motor is just started, back 17 same emf always: zero

ode

2023 (1st-A)

INTERMEDIATE PART-II (12th Class)

Roll No:

Number: 4471
PHYSICS

PAPER-II

GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

Q.No.1 You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.

S.#	QUESTIONS	A	В	C	D
1	The concept of an electric field was introduced by:	Henry	Faraday	Watt	Oersted
2	Electric field intensity due to an infinite sheet of charge is:	$E = \frac{2\sigma}{\varepsilon_o}$	$E = 2\sigma\varepsilon_v$	$E = \frac{\sigma}{2\varepsilon_{\alpha}}$	$E = \frac{\sigma}{\varepsilon_o}$
3	The value of drift velocity of electrons is of the order of:	10 ³ ms	10 ² ms ¹	10 ⁻³ ms ⁻¹	$10^{-3} ms^{-1}$
4	Formula for shunt resistance R_S is:	$R_{g} = \frac{I_{z}}{I - I_{g}} R_{g}$	$R_S = \frac{V_g}{I - I_g} R_g$	$R_g = \frac{I - I_g}{I_g} R_g$	$R_s = \frac{I - I_s}{I_s R_s}$
5	Voltmeter is connected in the circuit in:	Perpendicular	Parallel	Series	Anti parallel
6	The principle of an A.C. generator is base on:	Mutual Induction	Lenz's law	Self induction	Faraday's law of electromagnetic induction
7	When the motor is just started, back cmf always:	Becomes zero	Decreases	Remains same	Increases
8	Root mean square value of an alternating voltage is:	$\frac{V_o^2}{\sqrt{2}}$	$\frac{V_s}{\sqrt{2}}$	$\frac{V_s^2}{2}$	$\frac{V_o}{2}$
9	Power dissipated in a pure inductor is:	Zero	Infinite	Small	Maximum
10	The value of potential barrier for silicon at room temperature is:	0.31/-	0.5V	0.7 <i>V</i>	0.91/
11	The ratio of impurity addition in an intrinsic semiconductor is:	1 to 10 ³	1 to 10 ⁴	I to 10 ⁵	1 to 10 ⁶
12	SI unit of current gain of transistor is:	Coulomb	Ampere	No unit	Farad
13	When platinum wire is heated, it appears cherry red at temperature:	500°C	900°C	1100°C	1300° C
14	A photocell is base on:	Photoelectric effect	Polarization	Time dilation	Compton effect
15	Normally an electron can reside in excited state for about:	10 ⁻² s	10 ⁻¹ s	10 ⁴ s	10 ⁻⁸ s
16	Dead time of the counter is:	10 ^{-?} s	~10-6 s	~10 4 s	~10 ⁻⁵ s
17	The building blocks of protons and neutrons are called:	Quarks	Electrons	Protons	Ions

19(Obj)(★)-2023(1st-A)-25000 (MULTAN)

Paper Code

Number: 4473

2023 (1st-A) INTERMEDIATE PART-II (12th Class)

Roll No:

PHYSICS

PAPER-II

GROUP-I

TIME ALLOWED; 20 Minutes		OBJEC	CTIVE	MAXIMUM MARKS: 17		
Q.N	o.1 You have four choices for each objectis correct, fill that bubble in front of fill the bubbles. Cutting or filling two	f that question nu	ımber, on bul	oble sheet. Use n	narker or pen to	
S.#	OUESTIONS	A	В	C	D	
1	Root mean square value of	ν,	V.,	V^2	V_o	
	an alternating voltage is:	$\frac{V_a^2}{\sqrt{2}}$	$\frac{V_n}{\sqrt{2}}$	$\frac{V_o^2}{2}$	$\frac{V_o}{2}$	
2	Power dissipated in a pure inductor is:	Zero	Infinite	Small	Maximum	
3	The value of potential barrier for silicon at room temperature is:	0.3V	0.5V	0.7 <i>V</i>	0.9V	
4	The ratio of impurity addition in an intrinsic semiconductor is:	1 to 10 ³	1 to 10 ⁴	1 to 10 ⁵	1 to 10 ⁶	
5	SI unit of current gain of transistor is:	Coulomb	Ampere	No unit	Farad	
6	When platinum wire is heated, it	500°C	900°C	1100°C	1300°C	
	appears cherry red at temperature:	dilla.	700 0	4		
7	A photocell is base on:	Photoelectric effect	Polarization	dilation	Compton effect	
8	Normally an electron can reside in excited state for about:	10 ⁻² s	10 ⁻⁴ s	10 ⁻⁶ s	10 8 5	
9	Dead time of the counter is:	$\sim 10^{-7} s$	~10-8s	$\sim 10^{-4} s$	~10 ⁵ s	
10	The building blocks of protons and neutrons are called:	Quarks	Electrons	Protons	Ions	
11	The concept of an electric field was introduced by:	Henry	Faraday	Wati	Oersted	
12	Electric field intensity due to an infinite sheet of charge is:	$E = \frac{2\sigma}{\varepsilon_s}$	$E = 2\sigma\varepsilon_{o}$	$E = \frac{\sigma}{2\varepsilon_n}$	$E = \frac{\sigma}{\varepsilon_o}$	
13	The value of drift velocity of electrons is of the order of:	10 ³ ms ⁻¹	$10^2 ms^{-1}$	$10^{-3} ms^{-1}$	10 ⁻² ms ¹	
14	Formula for shunt resistance R_S is:	$R_S = \frac{I_q}{I - I_d} R_d$	$R_{s} = \frac{V_{g}}{I - I_{g}} R_{g}$	$R_{\rm N} = \frac{I - I_{\rm g}}{I_{\rm g}} R_{\rm g}$	$R_{\mathcal{S}} = \frac{I - I_{\mathcal{S}}}{I_{\mathcal{S}} R_{\mathcal{S}}}$	
15	Voltmeter is connected in the circuit in:	Perpendicular	Parallel	Series	Anti parallel	
16	The principle of an A.C. generator is base on:	Mutual Induction	Lenz's law	Self induction	Faraday's law of electromagnetic induction	
17	When the motor is just started, back emf always:	Becomes zero	Decreases	Remains same	Increases	

Paper Code 2023 (1st-A)
Number: 4472 INTERMEDIATE PART-II (12th Class)

Roll No:

PHYSICS PAPER-II

GROUP-II

TIME ALLOWED: 20 Minutes OBJECTIVE MAXIMUM MARKS: 17

Q.No.1 You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.

	fill the bubbles. Cutting or filling two or n	ore bubbles wi	100000000000000000000000000000000000000	American Company of the Company of t	
S.#	QUESTIONS	A	В	C	D
Į.	If a positive charged particle of mass " m " is projected parallel to uniform electric field \vec{E} . The acceleration of the particle is:	Zero	$\frac{q\vec{E}}{m}$	qmF.	$\frac{\vec{E}}{qm}$
2	A $3K\Omega$ resistor is connected in series with a capacitor of capacitance 2mF. The time constant for capacitor is:	1 sec	5 sec	6 sec	1.33 sec
3	If no fourth band is present on a carbon resistor then its tolerance will taken:	± 20%	±10%	± 5%	0%
4	To display the given voltage along Y – axis on C.R.O, connected to it:	X - plates of C.R.O.	1 - plates of C.R.O.	Cathode of C.R.O.	Anodes of C.R.O.
5	If we want to increase the measuring range of voltmeter, the series high resistance value should be:	alacreased	Decreased	Kept constant	Zero
6	The direction of induced current in a circuit is determined by:	Ohin s law	Faraday's law	Gauss's law	Lenz's law
7	For alternating current in a circuit, the inductor behaves like	Thermistor	Resistor	Capacitor	Rectifier
8	Metal detectors consist of:	R - C circuit	R = t	RLC series circuit	L – C circu
9	At high frequency, RLC series circuit shows the behaviour as:	R – I. circuit	Pure inductive circuit	R –C circuit	Pure capacitive circuit
10	High temperature super conductors have a critical temperature greater than:	52K	77K	125K	163K
11	In, Op-amp as a comparative when $V_* > V_+$, then at the output we get:	$V_o = + V_{CC}$	V ₂ = 0	$V_s = -V_{CC}$	$V_a = \infty$
12	The SI unit of current gain are:	Ampere	Ohm	Gray	No unit
13	Which photon of light has least energy?	Red	Yellow	Blue	Green
14	The rest mass of photon is:	9.1×10 ⁻³ kg	1.67×10 ⁻²⁷ kg	Zero	Infinity
15	X – rays are:	High energy electrons	High energy neutrons	High energy protons	High energ
16	Heat produced due to fission reaction taking place in the core of Nuclear reactor is about:	500° C	900° C	1100°C	1300°C
17	Subatomic particles are divided into:	Six groups	Five groups	Four groups	Three group

Paper Code 2023 (1st-A)
Number: 4474 INTERMEDIATE PART-II (12th Class)

Roll No:

PHYSICS PAPER-II GROUP-II

TIME ALLOWED: 20 Minutes OBJECTIVE MAXIMUM MARKS: 17

Q.No.1 You have four choices for each objective type question as A, B, C and D. The choice which you think
is correct fill that hubble in front of that question number on hubble sheet. Use marker or pen to

Q.No	1 You have four choices for each objective type question as A, B, C and D. The choice which is correct, fill that bubble in front of that question number, on bubble sheet. Use marker fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that que						
S.#	QUESTIONS	A	В	C	D		
1	At high frequency, RLC series circuit		Pure		Pure		
•	shows the behaviour as:	R – L circuit	inductive circuit	R -C circuit	capacitive circuit		
2	High temperature super conductors have critical temperature greater than:	a 52K	77K	125K	163K		
3	In, Op-amp as a comparator, when $V >$ then at the output we get:	V_+ , $V_o = + V_{CC}$	V ₀ = 0	$V_o = -V_{CC}$	$V_s = \infty$		
4	The SI unit of current gain are:	Ampere	Ohm	Gray	No unit		
5	Which photon of light has least energy?	Red	Yellow	Blue	Green		
6	The rest mass of photon is:	9.1×10 ⁻³ kg	1,67×10 27 kg	Zero	Infinity		
7	X – rays are:	High energy electrons	High energy neutrons	High energy protons	High energy photons		
8	Heat produced due to fission reaction taking place in the core of Nuclear reactors about:	500°C	900°C	1100%	1300°C		
9	Subatomic particles are divided into:	Six groups	Five groups	Four groups	Three groups		
10	If a positive charged particle of mass "m	n	//a₽		$ec{E}$		
150	is projected parallel to uniform electric field \vec{E} . The acceleration of the particle	Zere	m	qmĒ	$\frac{D}{qm}$		
11	A 3KΩ resistor is connected in series we a capacitor of capacitance 2mF. The time constant for capacitor is:	66666	.5 sec	6 sec	1.33 sec		
12	If no fourth band is present on a carbon resistor then its tolerance will taken:	± 20%	±10%	±5%	0%		
13	To display the given voltage along $Y - a$ on C.R.O, connected to it:	X - plates of C.R.O.	Y-plates of C.R.O.	Cathode of C.R.O.	Anodes of C.R.O,		
14	If we want to increase the measuring ran of voltmeter, the series high resistance value should be:	ge Increased	Decreased	Kept constant	Zero		
15	The direction of induced current in a circ is determined by:	cuit Ohm's law	Faraday's law	Gauss's law	Lenz's law		
16	For alternating current in a circuit, the inductor behaves like:	Thermistor	Resistor	Capacitor	Rectifier		
17	Metal detectors consist of:	R – C circuit	R – L circuit	RLC series circuit	L – C circuit		

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Paper Code
Number: 4476

Number: 4476

Number: 4476

Number: 4476

Roll No: ______

TIME ALLOWED: 20 Minutes OBJECTIVE MAXIMUM MARKS: 17

Q.No.1 You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles, Cutting or filling two or more bubbles will result in zero mark in that question.

S.#	fill the bubbles. Cutting or filling two or m QUESTIONS	A	В	C	D
1	For alternating current in a circuit, the inductor behaves like:	Thermistor	Resistor	Capacitor	Rectifier
2	Metal detectors consist of:	R – C circuit	R – L circuit	RLC series circuit	L – C circuit
3	At high frequency, RLC series circuit shows the behaviour as:	R – L circuit	Pure inductive circuit	R -C circuit	Pure capacitive circuit
4	High temperature super conductors have a critical temperature greater than:	52K	77K	125K	163K
5	In, Op-amp as a comparator, when $V > V$, then at the output we get:	V _a = + V _{cc}	$V_g = 0$	$V_a = -V_{CC}$	$V_a = \infty$
6	The SI unit of current gain are:	Ampere	Ohm	Gray	No unit
7	Which photon of light has least energy?	Red	Yellow	Blue	Green
8	The rest mass of photon is:	9.1×10 ³ kg	1.67×10 ⁻²⁷ kg	Zerő	Infinity
9	X – rays are:	High energy electrons	High energy neutrons	High energy protens	High energy photons
10	Heat produced due to fission reaction taking place in the core of Nuclear reactor is about:	500° C	900°C	1100°C	1300°C
11	Subatomic particles are divided into:	Six groups	Five groups	Four groups	Three groups
12	If a positive charged particle of mass " m " is projected parallel to uniform electric field \vec{E} , The acceleration of the particle is	Zero	$q\vec{E} = m$	$qmar{E}$	$\frac{\bar{E}}{qm}$
13	A $3K\Omega$ resistor is connected in series with a capacitor of capacitance $2m\Gamma$. The time constant for capacitor is:	1 sec	5 sec	6 sec	1.33 sec
14	If no fourth band is present on a carbon resistor then its tolerance will taken:	± 20%	±10%	± 5%	0%
15	To display the given voltage along Y – axis on C.R.O, connected to it:	X – plates of C.R.O.	Y-plates of C.R.O.	Cathode of C.R.O.	Anodes of C.R.O.
16	If we want to increase the measuring range of voltmeter, the series high resistance value should be:	Increased	Decreased	Kept constant	Zero
17	The direction of induced current in a circuit is determined by:	Ohm's law	Faraday's law	Gauss's law	Lenz's law

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Paper Code 2023 (1st-A)

Number: 4478 INTERMEDIATE PART-II (12th Class) Roll No: _____

PHYSICS PAPER-II GROUP-II TIME ALLOWED, 20 Minutes OF LECTIVE MAXIMUM MARKS, 1

TIME ALLOWED: 20 Minutes OBJECTIVE MAXIMUM MARKS: 17 You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. S.# QUESTIONS B Y – plates To display the given voltage along Y – axis X — plates Cathode of Anodes of C.R.O. on C.R.O, connected to it: of C.R.O. of C.R.O. C.R.O. If we want to increase the measuring range of voltmeter, the series high resistance Increased Decreased Kept Zero value should be: constant The direction of induced current in a circuit Ohm's law Faraday's Gauss's law Lenz's law is determined by: kaw For alternating current in a circuit, the Thermistor Resistor Capacitor Rectifier inductor behaves like: Metal detectors consist of: 5 R-CRLC series L - C circuit circuit circuit & circuit 6 At high frequency, RLC series circuit, Pure Pure shows the behaviour as: R + L circuit inductive R Ceircuit capacitive circuit circuit 7 High temperature super conductors have a 52**K** 77K 125K 163K critical temperature greater than: 8 In, Op-amp as a comparator, when $V > V_{\perp}$, V. 300 $V_a = -V_{CC}$ $V = \infty$ then at the output we get: 9 The SI unit of current gain are: Ampere Ohm Gray No unit Which photor of light has least energy? 10 Red Yellow Blue Green The rest mass of photon is: 11 1.67×10⁻²⁷ kg Zero $9.1 \times 10^{7.3} kg$ Infinity 12 X - rays are: High energy High energy High energy High energy electrons neutrons protons photons Heat produced due to fission reaction. 13 500° € 900°C $1100^{\circ}C$ $1300^{\circ}C$ taking place in the core of Nuclear reactor is about: 14 Subatomic particles are divided into: Six groups Five groups Four groups Three groups 15 If a positive charged particle of mass "m" $\frac{q\vec{E}}{m}$ is projected parallel to uniform electric Zero gmF. field \vec{E} , The acceleration of the particle is: A $3K\Omega$ resistor is connected in series with 16 a capacitor of capacitance 2mF. The time 1 sec 5 sec 6 sec 1.33 sec constant for capacitor is: 17 If no fourth band is present on a carbon $\pm 20\%$ ±10% =5% 0% resistor then its tolerance will taken: