

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDIATE 1st ANNUAL EXAMINATION, 2026

Name of Subject: Physics Group: I

Q. Nos	Paper Code 4471	Correct Answer	Paper Code 4473	Correct Answer	Paper Code 4475	Correct Answer	Paper Code 4477	Correct Answer
1	B	vector quantity	D	16 times	B	Sweep	D	Squids
2	C	Electric energy	A	Shorter wavelength	D	Four times	C	OR gate
3	D	Resistor	B	85%	A, B, C, D	Full credit	B	External
4	A	Series	A	Meson	A	88 MHz to 108 MHz	D	16 times
5	B	Sweep	D	$J kg^{-1}$	B	X-rays	A	Shorter wavelength
6	D	Four times	B	Vector quantity	D	Squids	B	85%
7	A, B, C, D	Full credit	C	Electric energy	C	OR gate	A	Meson
8	A	88 MHz to 108 MHz	D	Resistor	B	External	D	$J kg^{-1}$
9	B	X-rays	A	Series	D	16 times	B	vector quantity
10	D	Squids	B	Sweep	A	Shorter wavelength	C	Electric energy
11	C	OR gate	D	Four times	B	85%	D	Resistor
12	B	External	A, B, C, D	Full credit	A	Meson	A	Series
13	D	16 times	A	88 MHz to 108 MHz	D	$J kg^{-1}$	B	Sweep
14	A	Short wavelength	B	X-rays	B	Vector quantity	D	Four times
15	B	85%	D	Squids	C	Electric energy	A, B, C, D	Full credit
16	A	Meson	C	OR gate	D	Resistor	A	88 MHz to 108 MHz
17	D	$J kg^{-1}$	B	External	A	Series	B	X-rays
18								
19								
20								
Cross Check	A B C D		A B C D		A B C D		A B C D	
Total	4525	+1(F.C)	4525	+1(F.C)	4525	+1(F.C)	4525	+1(F.C)

مرتبہ کیلئے بابت سوالات پرچہ امادہ کلید

ہم نے نمونہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو بنظر عین چیک کر لیا ہے یہ پرچہ Syllabus کے تین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کسی قسم کی کوئی غلطی نہ ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے۔ یہ Version آپس میں مطابقت رکھتے ہیں۔ نیز اس پرچہ کی معروضی (MCQs) Key کی بابت تصدیق کی جاتی ہے کہ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔ نیز سب ایگزیمینز کے لیے تفصیلی مارکنگ ہدایات / مارکنگ اسکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 11-06-26

S.#	Name	Designation	Institution	Mobile No	Signature
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2	Hafiz Goman Sadaq	A/P	Govt. C. High No. 10, Multan	0306-7471194	
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4	Dr. Nadeem Anwar	A/P	G.G.C. Civil Lines Multan	03000799307	
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Re-Checked By: ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی) معروضی "Key" اور ہدایات کے حوالہ سے مکمل طور پر چیک کر لیا ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

1	افتخار حسین سراج	A/P	گورنمنٹ کالج ملتان	03336060851	Herman
2	Mr. Asmat Ehsan	Asst. Prof	G.G.C. Science Multan	03006733033	Chah

12-06-2026

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDIATE 1st ANNUAL EXAMINATION, 2026

16

Name of Subject: Physics Group: II

Q. Nos	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer
	4472		4474		4476		4478	
1	D	1.0	D	Back emf	D	x-rays	C	Bulk Modules
2	A	Parallel & equally spaced	A	Graphite or Carbon	C	Photo cell	D	0.7V
3	C	Resistance	C	Capacitive reactance	A	Standing waves	B	Ic/Ib
4	B	CRO	B	Resonance	D	A generator	D	x-rays
5	C	AVO meter	C	Bulk Modules	B	Electron	C	Photo cell
6	D	Back emf	D	0.7V	D	1.0	A	Standing waves
7	A	Graphite or Carbon	B	Ic/Ib	A	Parallel & equally spaced	D	A generator
8	C	Capacitive reactance	D	x-rays	C	Resistance	B	Electron
9	B	Resonance	C	Photo cell	B	CRO	D	1.0
10	C	Bulk modules	A	Standing waves	C	AVO meter	A	Parallel & equally spaced
11	D	0.7V	D	A generator	D	Back emf	C	Resistance
12	B	Ic/Ib	B	Electron	A	Graphite or Carbon	B	CRO
13	D	x-rays	D	1.0	C	Capacitive reactance	C	AVO meter
14	C	Photo cell	A	Parallel & equally spaced	B	Resonance	D	Back emf
15	A	Standing waves	C	Resistance	C	Bulk Modules	A	Graphite or Carbon
16	D	A generator	B	CRO	D	0.7V	C	Capacitive reactance
17	B	Electron	C	AVO meter	B	Ic/Ib	B	Resistance
18								
19								
20								
Cross Check	A B C D		A B C D		A B C D		A B C D	
Total	03/04/05/05		03/04/05/05		03/04/05/05		03/04/05/05	

مرثقیٹ بائٹ صحیح سوالیہ پرچہ امارنگ

ہم نے مضمون _____ پرچہ _____ گروپ _____ انٹرمیڈیٹ پہلا سالانہ امتحان 2026 کا سوالیہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو بنظر عین چیک کر لیا ہے یہ پرچہ Syllabus کے عین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کسی قسم کی کوئی غلطی نہ ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے۔ یہ Version آپس میں مطابقت رکھتے ہیں۔ نیز اس پرچہ کی معروضی (MCQs) Key کی بابت تصدیق کی جاتی ہے کہ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔ نیز سب ایگزامینرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 11-06-26

S.#	Name	Designation	Institution	Mobile No	Signature
1	Hafiz Samra Sadoq	Asst. Prof	G.G.C. (S) Chungi No. 14 Multan	03067474184	
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Re-Checked By _____ ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی) معروضی "Key" اور ہدایات کے حوالے سے مکمل طور پر چیک کر لیا ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

1	استاد احسن رحیم	AP	گورنمنٹ کالج سائنس	03336666851	
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12-06-2026 تاریخ

INTERMEDIATE PART-II (12 th Class)		2026 (1 st -A)	Roll No: _____
PHYSICS PAPER-II GROUP-I			
TIME 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. Write answers of any eight parts.			8×2 = 16
(i)	Do electrons tend to go to region of high potential or of low potential?		
(ii)	How can you identify that which plate of a capacitor is positively charged?		
(iii)	The time constant of a series RC circuit is $t = RC$. Verify that an ohm times farad is equivalent to second.		
(iv)	Suppose that you follow an electric field line due to a positive point charge. Do electric field and the potential increase or decrease?		
(v)	A loop of wire is suspended between the poles of a magnet with its plane parallel to the pole faces. What happens if a direct current is put through the coil? What happens if an alternating current is used instead?		
(vi)	What do you know about Pivoted type galvanometer? Explain.		
(vii)	Why the resistance of an ammeter should be very low?		
(viii)	A current in a conductor produces a magnetic field, which can be calculated using Ampere's law. Since current is defined as the rate of flow of charge, what can you conclude about the magnetic field due to stationary charges? What about moving charges?		
(ix)	What do you understand by "background radiation"? State two sources of this radiation.		
(x)	Why are heavy nuclei unstable?		
(xi)	Explain how α and β – particles may ionize an atom without directly hitting the electrons? What is the difference in the action of the two particles for producing ionization?		
(xii)	How James Chadwick discovered neutron in 1932? State the nuclear reaction.		
3. Write answers of any eight parts.			8×2 = 16
(i)	Discuss four main types of Sources of Current.		
(ii)	What is meant by Electroplating?		
(iii)	A potential difference is applied across the ends of a copper wire. What is the effect on the drift velocity of free electrons by (i) increasing the potential difference (ii) decreasing the length and temperature of the wire		
(iv)	Define peak to peak value of Alternating Voltage.		
(v)	When 10V are applied to an AC circuit, the current flowing in it is 100mA. Find its impedance.		
(vi)	A sinusoidal current has rms value of 10A. What is the maximum or peak value?		
(vii)	How Magnetic Resonance imaging works?		
(viii)	Define Stress and Strain. What are their SI units?		
(ix)	Discuss the mechanism of electrical conduction by holes and electrons in a pure semiconductor element.		
(x)	What is a Transistor? Write the name of its two types.		
(xi)	Draw the truth tables of NOR and NAND gates.		
(xii)	Why ordinary silicon do not emit light?		
4. Write answers of any six parts.			6×2 = 12
(i)	How would you position a flat loop of wire in a changing magnetic field so that there is no emf induced in the loop?		
(ii)	Can a DC motor be turned into a DC generator? What changes are required to be done?		
(iii)	Show that $\mathcal{E}$ and $\frac{\Delta\phi}{\Delta t}$ have same units.		
(iv)	Can pair production take place in vacuum? Explain.		
(v)	When light shines on a surface, is momentum transferred to the metal surface?		
(vi)	When does light behave as a wave? When does it behave like a particle?		
(vii)	Why don't we observe a Compton effect with visible light?		
(viii)	Is energy conserved when an atom emits a photon of light?		
(ix)	What are the advantages of lasers over ordinary light?		
SECTION-II			
NOTE: Attempt any three questions.			3×8 = 24
5.(a)	State and prove Kirchhoff's Second Rule.		05
(b)	Find the electric field strength required to hold a suspended particle of mass $1.0 \times 10^{-6} \text{ kg}$ and charge $1.0 \mu\text{C}$ between two plates 10.0 cm apart.		03
6.(a)	Derive an expression for energy stored in an inductor.		05
(b)	A power line 10.0 m high carries a current 200A . Find the magnetic field of the wire at the ground.		03
7.(a)	Describe the behaviour of A.C through an inductor. Also show that the reactance of an inductor depends upon the frequency of A.C and inductance.		05
(b)	In a certain circuit, the transistor has a collector current of 10mA and a base current of $40 \mu\text{A}$. What is the current gain of the transistor?		03
8.(a)	Discuss the Postulates of special theory of relativity and explain the phenomenon of time dilation and length contraction.		05
(b)	A wire 2.5m long and cross section area 10^{-5} m^2 is stretched 1.5 mm by a force of 100N in elastic region. Calculate (i) Strain and (ii) Young's Modulus		03
9.(a)	State Heisenberg's uncertainty principle and use it to explain why an electron cannot be confined within nucleus of an atom.		05
(b)	Find mass defect and binding energy of deuteron nucleus. The experimental mass of deuteron is $3.3435 \times 10^{-27} \text{ kg}$.		03

INTERMEDIATE PART-II (12 th Class)		2026 (1 st -A)	Roll No: _____
PHYSICS PAPER-II GROUP-II			
TIME 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. Write answers of any eight parts.			8×2 = 16
(i)	Show that $RC = t$		
(ii)	What is the electric intensity at a distance 'r' 100 cm due to charge $10\mu C$?		
(iii)	Electric field lines of force never cross. Why?		
(iv)	If a point charge 'q' of mass 'm' is released in a non-uniform electric field with field lines pointing in the same direction, will it make rectilinear motion?		
(v)	What is Dead Beat Galvanometer?		
(vi)	What is Lorentz force?		
(vii)	How can a current loop be used to determine the presence of a magnetic field in a given region of space?		
(viii)	Suppose that a charge 'q' is moving in a uniform magnetic field with a velocity 'v'. Why is there no work done by the magnetic force that acts on the charge 'q'?		
(ix)	What are the basic forces of nature?		
(x)	What do you know about radiography?		
(xi)	Differentiate between thermal and fast reactors.		
(xii)	Which radiation does would deposit more energy in the body (a) 10 mGy to the hand, or (b) 1 mGy does to entire body.		
3. Write answers of any eight parts.			8×2 = 16
(i)	Is the filament resistance lower or higher in a 500W, 220V light bulb than in a 100W, 220V bulb?		
(ii)	Describe a circuit which will give a continuously varying potential.		
(iii)	What is Conventional Current?		
(iv)	How does doubling the frequency affect the reactance of a capacitor?		
(v)	In a R – L circuit, will the current lag or lead the voltage? Illustrate your answer by a vector diagram.		
(vi)	Differentiate between peak value and rms value of sinusoidal A.C.		
(vii)	Describe the formation of energy bands in solids.		
(viii)	What is meant by doping? Explain its impact on the conductivity of a semi-conductor?		
(ix)	Distinguish between amorphous and polymeric solids.		
(x)	The anode of a diode is 0.2V positive with respect to its cathode. Is it forward biased? Explain.		
(xi)	Write down the Boolean expression of XNOR gate. Also draw its schematic diagram.		
(xii)	Why is the base current in a transistor very small?		
4. Write answers of any six parts.			6×2 = 12
(i)	State Faraday's Law. Also write its formula.		
(ii)	What are eddy currents in a transformer?		
(iii)	Show that $\mathcal{E}$ and $\frac{\Delta\phi}{\Delta t}$ have the same units.		
(iv)	Distinguish between inertial and non-inertial frame of reference.		
(v)	What are the measurements on which two observers in relative motion will always agree upon?		
(vi)	Photon A has twice the energy of photon B. What is the ratio of momentum of A to that of B?		
(vii)	What advantages an electron microscope has over an optical microscope?		
(viii)	Explain why laser action can not occur without population inversion between atomic levels?		
(ix)	How do we obtain the image of bones using X-rays?		
SECTION-II			
NOTE: Attempt any three questions.			3×8 = 24
5.(a)	State Gauss's law. Apply it to find the electric intensity between two oppositely charged parallel plates.		05
(b)	0.75 A current flows through an iron wire when a battery of 1.5V is connected across its ends. The length of the wire is 5.0 m and its cross sectional area is $2.5 \times 10^{-7} m^2$. Compute the resistivity of iron.		03
6.(a)	Discuss the principle, construction and working of galvanometer. (upto $I \propto \theta$)		05
(b)	An ideal step down transformer is connected to main supply of 240V. It is desired to operate a 12V, 30W lamp. Find the current in the primary and transformation ratio.		03
7.(a)	What is comparator? How the comparator can be used as night switch?		05
(b)	What is the resonant frequency of a circuit which includes a coil of inductance 2.5 H and a capacitance of $40\mu F$?		03
8.(a)	Write the postulates of special theory of relativity and explain the phenomenon of time dilation and length contraction.		05
(b)	A wire 2.5 m long and cross-section area $10^{-5} m^2$ is stretched 1.5 mm by a force of 100 N in the elastic region. Calculate (i) the strain (ii) Young's modulus		03
9.(a)	Explain construction, working and uses of Geiger-Muller Counter in detail.		05
(b)	Electrons in an X-ray tube are accelerated through a potential difference of 3000V. If these electrons were slowed down in a target, what will be the minimum wavelength of X-rays produced?		03

PAPER CODE: 4471		2026 (1 st -A)		Roll No: _____	
PHYSICS PAPER-II		INTERMEDIATE PART-II (12 th Class)			
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	B	C	D
1	The gradient of the scalar field is always be:	Scalar quantity	Vector quantity	Potential	Force
2	Electron volt is unit of:	Potential	Electric current	Electric energy	Force
3	A thermistor is a heat sensitive:	Diode	Capacitor	Inductor	Resistor
4	An ammeter is connected in a circuit to measure current in:	Series	Parallel	Both A and B	Oblique
5	An electric circuit in CRO that provides voltage to X plates is called:	Trigger	Sweep	Sleep	Grid
6	When current flowing through an inductor is doubled, then energy stored in it becomes: - .	$\frac{1}{2}$	$\frac{1}{4}$	Double	Four times
7	If $V = 63 \cos(100\pi t + 60^\circ)$, then frequency of rotation of generator coil is:	100 Hz	314 Hz	50 Hz	200 Hz
8	The FM transmission frequency ranges between:	88 MHz to 108 MHz	88 MHz to 100 MHz	80 MHz to 200 MHz	80 KHz to 108 KHz
9	Which one of the given electromagnetic waves have shortest wavelength?	Radio waves	X-rays	Infrared waves	Microwaves
10	A device used to detect weak magnetic field produced by brain is:	MRI	CAT	CRO	Squids
11	$X = A + B$ is mathematical notation for the output of:	AND gate	NAND gate	OR gate	NOR gate
12	The gain of an op-amp depends only on resistance which are connected:	Internal	External	Voltage	None of these
13	If temperature of black body is doubled then energy radiated per sec per square meter becomes:	32 times	$\frac{1}{16}$ times	4 times	16 times
14	To black body radiation, intensity versus wavelength graph, by increasing temperature λ_{max} shifts to:	Shorter wavelength	Longer wavelength	No effect	Random effect
15	The common type of He-Ne laser contain helium:	15%	85%	90%	20%
16	A pair of quark and antiquark makes a:	Meson	Baryon	Proton	Neutron
17	The unit of absorbed dose is gray =	10J	Jkg	Mj	Jkg ⁻¹

19(Obj)(★)-2026(1st-A)-22000 (MULTAN)

$$\begin{aligned}
 U &= \frac{1}{2} L I^2 \\
 &= \frac{1}{2} L (2I)^2 \\
 &= 4 \left(\frac{1}{2} L I^2 \right)
 \end{aligned}$$

PAPER CODE: 4473		2026 (1 st -A)		Roll No:	
PHYSICS PAPER-II GROUP-I		INTERMEDIATE PART-II (12 th Class)			
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.				
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6	The gradient of the scalar field is always be:	Scalar quantity	Vector quantity	Potential	Force
7	Electron volt is unit of:	Potential	Electric current	Electric energy	Force
8	A thermistor is a heat sensitive:	Diode	Capacitor	Inductor	Resistor
9	An ammeter is connected in a circuit to measure current in:	Series	Parallel	Both A and B	Oblique
10	An electric circuit in CRO that provides voltage to X plates is called:	Trigger	Sweep	Sleep	Grid
11	When current flowing through an inductor is doubled, then energy stored in it becomes:	$\frac{1}{2}$	$\frac{1}{4}$	Double	Four times
12	If $V = 63 \text{ Cis } (100\pi t + 60^\circ)$, then frequency of rotation of generator coil is:	100 Hz	314 Hz	50 Hz	200 Hz
13	The FM transmission frequency ranges between:	88 MHz to 108 MHz	88 MHz to 100 MHz	80 MHz to 200 MHz	80 KHz to 108 KHz
14	Which one of the given electromagnetic waves have shortest wavelength?	Radio waves	X-rays	Infrared waves	Microwaves
15	A device used to detect weak magnetic field produced by brain is:	MRI	CAT	CRO	Squids
16	$X = A + B$ is mathematical notation for the output of:	AND gate	NAND gate	OR gate	NOR gate
17	The gain of an op-amp depends only on resistance which are connected:	Internal	External	Voltage	None of these

PAPER CODE: 4475		2026 (1 st -A)		Roll No: _____	
INTERMEDIATE PART-II (12 th Class)					
PHYSICS PAPER-II GROUP-I					
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S.#	QUESTIONS	A	B	C	D
1	An electric circuit in CRO that provides voltage to X plates is called:	Tweet	Sweep	Sleep	Grid
2	When current flowing through an inductor is doubled, then energy stored in it becomes:	$\frac{1}{2}$	$\frac{1}{4}$	Double	Four times
3	If $V = 63 \cos(100\pi t + 60^\circ)$, then frequency of rotation of generator coil is:	100 Hz	314 Hz	50 Hz	200 Hz F.C.
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15	Electron volt is unit of:	Potential	Electric current	Electric energy	Force
16	A thermistor is a heat sensitive:	Diode	Capacitor	Inductor	Resistor
17	An ammeter is connected in a circuit to measure current in:	Series	Parallel	Both A and B	Oblique

PAPER CODE: 4477		2026 (1 st -A)		Roll No:	
		INTERMEDIATE PART-II (12 th Class)			
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	B	C	D
1	A device used to detect weak magnetic field produced by brain is:	MRI	CAT	CRO	Squids
2	$X = A + B$ is mathematical notation for the output of:	AND gate	NAND gate	OR gate	NOR gate
3	The gain of an op-amp depends only on resistance which are connected:	Internal	External	Voltage	None of these
4	If temperature of black body is doubled then energy radiated per sec per square meter becomes:	32 times	$\frac{1}{16}$ times	4 times	16 times
5	To black body radiation, intensity verser wavelength graph, by increasing temperature λ_{max} shifts to:	Shorter wavelength	Longer wavelength	No effect	Random effect
6	The common type of He – Ne laser contain helium:	15%	85%	90%	20%
7	A pair of quark and antiquark makes a:	Meson	Baryon	Proton	Neutron
8	The unit of absorbed dose is gray =	10 J	J/kg	Mj	Jkg ⁻¹
9	The gradient of the scalar field is always be:	Scalar quantity	Vector quantity	Potential	Force
10	Electron volt is unit of:	Potential	Electric current	Electric energy	Force
11	A thermistor is a heat sensitive:	Diode	Capacitor	Inductor	Resistor
12	An ammeter is connected in a circuit to measure current in:	Series	Parallel	Both A and B	Oblique
13	An electric circuit in CRO that provides voltage to X plates is called:	Tweet	Sweep	Sleep	Grid
14	When current flowing through an inductor is doubled, then energy stored in it becomes:	$\frac{1}{2}$	$\frac{1}{4}$	Double	Four times
15	If $V = 63 \text{ C is } (100\pi t + 60^\circ)$, then frequency of rotation of generator coil is:	100 Hz	314 Hz	50 Hz	200 Hz
16	The FM transmission frequency ranges between:	88 MHz to 108 MHz	88 MHz to 100 MHz	80 MHz to 200 MHz	80 KHz to 108 KHz
17	Which one of the given electromagnetic waves have shortest wavelength?	Radio waves	X-rays	Infrared waves	Microwaves

PAPER CODE: 4472		2026 (1 st -A)		Roll No:	
PHYSICS PAPER-II		INTERMEDIATE PART-II (12 th Class)			
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.				
S.#	QUESTIONS	A	B	C	D
1	The relative permittivity of free space has the value equal to:	2.1	1.006	78.5	1.0
2	A uniform electric field is represented by a set of lines which are:	Parallel and equally spaced	Converging	Diverging	Circular
3	Wheatstone Bridge is used to measure the:	Current	Voltage	Resistance	Capacitance
4	A high speed graph plotting device is:	Galvanometer	CRO	Voltmeter	Printer
5	A commercial instrument for measuring current, voltage and resistance is known as:	Voltmeter	Ammeter	AVO meter	Galvanometer
6	Self induced 'emf' is also called:	Motional emf	Thermistor	Electrostatic induction	Back emf
7	The brushes used in a generator are made up of:	Graphite or Carbon	Iron or Nickel	Copper or Iron	Steel or Copper
8	The opposition offered by a capacitor to the flow of an A.C is called:	Capacitance	Resistance	Capacitive reactance	Inductance L
9	When $X_L = X_C$, this condition is called:	Null	Resonance	Balanced	Absolute
10	The ratio of stress to volumetric strain is called:	Shear Modulus	Young's Modulus	Bulk Modulus	Modulus of elasticity
11	The potential barrier for silicon at room temperature is:	0.3V	1.0V	0.5V	0.7V
12	Current gain of a transistor is:	I_B/I_C	I_C/I_B	$\beta = I_B - I_C$	$\beta = I_B + I_C$
13	Which one of the given radiations has the most energetic photon?	T.V waves	Micro-waves	X - rays	γ - rays
14	A device based on photo-electric effect is called:	Photo sensitive	Photo diode	Photo-cell	Photosynthesis
15	According to de-Broglie, the electrons in the Bohr Orbits may appear as:	Standing waves	Particle	Photon	Ion
16	A place where controlled fission chain reaction is carried is called:	A black hole	Atomic bomb	Mass-spectrograph	A reactor
17	β - particle is regarded as fast moving:	Proton	Electron	Neutron	Boson

PAPER CODE: 4474		2026 (1 st -A)		Roll No:	
PHYSICS PAPER-II GROUP-II		INTERMEDIATE PART-II (12 th Class)			
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	B	C	D
1	Self induced 'emf' is also called:	Motional emf	Thermistor	Electrostatic induction	Back emf
2	The brushes used in a generator are made up of:	Graphite or Carbon	Iron or Nickel	Copper or Iron	Steel or Copper
3	The opposition offered by a capacitor to the flow of an A.C is called:	Capacitance	Resistance	Capacitive reactance	Inductance L
4	When $X_L = X_C$, this condition is called:	Null	Resonance	Balanced	Absolute
5	The ratio of stress to volumetric strain is called:	Shear Modulus	Young's Modulus	Bulk Modulus	Modulus of elasticity
6	The potential barrier for silicon at room temperature is:	0.3V	1.0V	0.5V	0.7V
7	Current gain of a transistor is:	I_B / I_C	I_B	$\beta = I_B - I_C$	$\beta = I_B + I_C$
8	Which one of the given radiations has the most energetic photon?	T.V waves	Micro-waves	X-rays	γ -rays
9	A device based on photo-electric effect is called:	Photo sensitive	Photo diode	Photo-cell	Photosynthesis
10	According to de-Broglie, the electrons in the Bohr Orbits may appear as:	Standing waves	Particle	Photon	Ion
11	A place where controlled fission chain reaction is carried is called:	A black hole	Atomic bomb	Mass-spectrograph	A reactor
12	β -particle is regarded as fast moving:	Proton	Electron	Neutron	Boson
13	The relative permittivity of free space has the value equal to:	2.1	1.006	78.5	1.0
14	A uniform electric field is represented by a set of lines which are:	Parallel and equally spaced	Converging	Diverging	Circular
15	Wheatstone Bridge is used to measure the:	Current	Voltage	Resistance	Capacitance
16	A high speed graph plotting device is:	Galvanometer	CRO	Voltmeter	Printer
17	A commercial instrument for measuring current, voltage and resistance is known as:	Voltmeter	Ammeter	AVO meter	Galvanometer

PAPER CODE: 4476		2026 (1 st -A)		Roll No:	
PHYSICS PAPER-II		INTERMEDIATE PART-II (12 th Class)			
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.				
S.#	QUESTIONS	A	B	C	D
1	Which one of the given radiations has the most energetic photon?	T.V waves	Micro-waves	☒ γ -rays	☐ γ -rays
2	A device based on photo-electric effect is called:	Photo sensitive	Photo diode	☒ Photo-cell	☐ Photosynthesis
3	According to de-Broglie, the electrons in the Bohr Orbits may appear as:	☒ Standing waves	☐ Particle	☐ Photon	☐ Ion
4	A place where controlled fission chain reaction is carried is called:	A black hole	Atomic bomb	Mass spectrograph	☒ A reactor
5	β - particle is regarded as fast moving:	Proton	☒ Electron	☐ Neutron	☐ Boson
6	The relative permittivity of free space has the value equal to:	2.1	1.006	78.5	☒ 1.0
7	A uniform electric field is represented by a set of lines which are:	☒ Parallel and equally spaced	☐ Converging	☐ Diverging	☐ Circular
8	Wheatstone Bridge is used to measure the:	Current	Voltage	☒ Resistance	☐ Capacitance
9	A high speed graph plotting device is:	Galvanometer	☒ CRO	☐ Voltmeter	☐ Printer
10	A commercial instrument for measuring current, voltage and resistance is known as:	☒ Voltmeter	☐ Ammeter	☐ AVO meter	☐ Galvanometer
11	Self induced 'emf' is also called:	☒ Motional emf	☐ Thermistor	☐ Electrostatic induction	☐ Back emf
12	The brushes used in a generator are made up of:	☒ Graphite or Carbon	☐ Iron or Nickel	☐ Copper or Iron	☐ Steel or Copper
13	The opposition offered by a capacitor to the flow of an A.C is called:	Capacitance	Resistance	☒ Capacitive reactance	☐ Inductance L
14	When $X_L = X_C$, this condition is called:	Null	☒ Resonance	☐ Balanced	☐ Absolute
15	The ratio of stress to volumetric strain is called:	Shear Modulus	Young's Modulus	☒ Bulk Modulus	☐ Modulus of elasticity
16	The potential barrier for silicon at room temperature is:	0.3V	1.0V	0.5V	☒ 0.7V
17	Current gain of a transistor is:	I_B/I_C	☒ I_C/I_B	$\beta = I_B - I_C$	$\beta = I_B + I_C$

PAPER CODE: 4478		2026 (1 st -A)		Roll No:	
PHYSICS PAPER-II		INTERMEDIATE PART-II (12 th Class)		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.				
S.#	QUESTIONS	A	B	C	D
1	The ratio of stress to volumetric strain is called:	Shear Modulus	Young's Modulus	Bulk Modulus	Modulus of elasticity
2	The potential barrier for silicon at room temperature is:	0.3V	1.0V	0.5V	0.7V
3	Current gain of a transistor is:	I_B/I_C	I_C/I_B	$\beta = I_C/I_B$	$\beta = I_B + I_C$
4	Which one of the given radiations has the most energetic photon?	T.V waves	Micro-waves	X-rays	γ -rays
5	A device based on photo-electric effect is called:	Photo sensitive	Photo diode	Photo-cell	Photosynthesis
6	According to de-Broglie, the electrons in the Bohr Orbits may appear as:	Standing waves	Particle	Photon	Ion
7	A place where controlled fission chain reaction is carried is called:	A black hole	Atomic bomb	Mass-spectrograph	A reactor
8	β - particle is regarded as fast moving:	Proton	Electron	Neutron	Boson
9	The relative permittivity of free space has the value equal to:	1	1.006	78.5	1.0
10	A uniform electric field is represented by a set of lines which are:	Parallel and equally spaced	Converging	Diverging	Circular
11	Wheatstone Bridge is used to measure the:	Current	Voltage	Resistance	Capacitance
12	A high speed graph plotting device is:	Galvanometer	CRO	Voltmeter	Printer
13	A commercial instrument for measuring current, voltage and resistance is known as:	Voltmeter	Ammeter	AVO meter	Galvanometer
14	Self induced 'emf' is also called:	Motional emf	Thermistor	Electrostatic induction	Back emf
15	The brushes used in a generator are made up of:	Graphite or Carbon	Iron or Nickel	Copper or Iron	Steel or Copper
16	The opposition offered by a capacitor to the flow of an A.C is called:	Capacitance	Resistance	Capacitive reactance	Inductance L
17	When $X_L = X_C$, this condition is called:	Null	Resonance	Balanced	Absolute