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$$= 17$$

فہرست مضامین

Dated: 03-07-26

تم نے درج بالا اساتذہ (انشائیہ + معروضی) معروضی "Key" اور ہدایات کے حوالہ سے مکمل طور پر تہیہ کر لی ہے۔ کسی قسم کی کوتاہی نہ ہے۔					
1	Dr. Annet Malik	Asst. Prof	Govt. College S.C. Okhla	0300 673303	
2	Dr. Kamran H. Khan	Asst. Prof	Govt. W.H.T. G.C. Multan	03156837405	

04-7-26

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

Name of Subject: PHYSICS Part-I New Course Group: 9-II

Q. Nos	Paper Code 2472	Correct Answer	Paper Code 2474	Correct Answer	Paper Code 2476	Correct Answer	Paper Code 2478	Correct Answer
1	D	L ⁻¹	A	LASER Interference	B	Proportional Limit	D	
2	B	Force	C	-18W	C	8ms ⁻¹	A	0.66m
3	A	Mass of body axis of rotation	D	decrease exponential	D	Exchange of Heat	D	weak nuclear force
4	D	60°	B	Tesla	B	Velocity of galaxies	ALL	FC
5	B	Proportional Limit	D		C	Constructive Interference	D	L ⁻¹
6	C	8ms ⁻¹	A	0.66m	A	LASER interferometer	B	Force
7	D	Exchange of heat	D	weak nuclear force	C	18W	A	Mass & axis
8	B	determining velocity of galaxies	ALL	F.C	D	decrease exponential	D	60°
9	C	constructive interference	D	L ⁻¹	B	Tesla	B	proportional limit
10	A	LASER interferometry	B	Force	D		C	8ms ⁻¹
11	C	18W	A	Mass and axis	A	0.66m	D	Exchange of heat
12	D	decrease exponential	D	60°	D	weak nuclear force	B	velocity of galaxies
13	B	Tesla	B	proportional limit	ALL	F.C	C	constructive interference
14	D		C	8ms ⁻¹	D	L ⁻¹	A	LASER interferometer
15	A	0.66m	D	Exchange of heat	B	Force	C	18W
16	D	weak nuclear force	B	velocity of galaxies	A	Mass & axis	D	decrease exponential
17	ALL	F.C	C	constructive interference	D	60°	B	Tesla
18								
19								
20								
Cross Check	A B C D		A B C D		A B C D		A B C D	
Total	3436+1=17		3436+1=17		3436+1=17		3436+1=17	

سرٹیفکیٹ مابین صحیح سوالیہ پرچہ / مارکنگ Key

ہم نے مضمون فزکس پرچہ Part-I گروپ II 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 کے بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔ نیز سب ایگزامینرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 03-07-26

S.#	Name	Designation	Institution	Mobile No	Signature
1	Dr. M. Tufeq, Jamil	AP	Govt. W.H.C. Multan	0300953755	✓
2	SIKANDAR ALI	AP	Govt Graduate College Shujal	0303-6006243	✓
3	Dr. HAMMAD ABBAS	A.P	Emerson University, Multan	039776113	✓
4	Neermeen Khatun	(A.P)	Govt. G. College Unimahal	03012286421	✓
5					

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	Dr. Asmat Alam	Ass. Prof	Govt College of Sci. Multan	03006733033	✓
2	Dr. Kamran Khan	Ass. Prof	Govt. W.H.C. Multan	03156831465	✓

04-07-26

INTERMEDIATE PART-I (11 th Class)		2026 (1 st -A)	Roll No: _____
PHYSICS (NEW COURSE) PAPER-I 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 the answers of any eight parts.			8 × 2 = 16
(i)	What is meant by uncertainty in a measurement?		
(ii)	How many significant figures in the given measurements? (i) 285 km (ii) 28.0025 m (iii) 0.0085 g (iv) 235.0 m		
(iii)	State right hand rule for two vectors with reference to vector product.		
(iv)	Why does a hunter aiming a bird in a tree miss the target exactly at the bird?		
(v)	State second law of motion in case of rotation.		
(vi)	If angular velocity of different particles of a rigid body is constant, will the linear velocity of these particles be also constant?		
(vii)	Define angular acceleration. Give its formula and unit.		
(viii)	An electric fan rotating at 3 rev s ⁻¹ is switched off. It comes to rest in 18.0 s. Find value of acceleration.		
(ix)	A body falls towards the earth in air. Will its total mechanical energy be conserved?		
(x)	What is the escape velocity from the surface of a planet with mass $2 \times 10^{24} \text{ kg}$ and radius $4 \times 10^6 \text{ m}$? ($G = 6.67 \times 10^{-11} \text{ Nm}^2 / \text{kg}^2$)		
(xi)	A 5 kg object is moving with an initial velocity of 2 m/s. A force acts on it, doing 20 J of work. What is its final velocity?		
(xii)	When will you say that a force is conservative? Give two conditions.		
3. Write the answers of any eight parts.			8 × 2 = 16
(i)	Write condition for a body to float in a fluid.		
(ii)	What is Stoke's law? Write its limitation.		
(iii)	Differentiate between streamline and turbulent flow of fluid.		
(iv)	The ratio stress/strain remains constant for small deformation. What will be effect on this ratio when the deformation made is very large?		
(v)	Why change in internal energy $\Delta U = 0$ in an isothermal process?		
(vi)	State second law of thermodynamics in two different forms.		
(vii)	What are conditions for path difference in constructive and destructive interference?		
(viii)	A string vibrates in its second harmonic with a frequency of 200 Hz. Find the fundamental frequency and wavelength if the string length is 0.5 m.		
(ix)	How should a source of sound move with respect to an observer so that the frequency of its sound does not change?		
(x)	What is meant by diffraction of waves? For what purpose, the ripple tank is used?		
(xi)	Write the applications of polarization in the fields of medical science and astronomy.		
(xii)	What is the significance of detecting gravitational waves?		
4. Write the answers of any six parts.			6 × 2 = 12
(i)	Prove that $1 \text{ eV} = 1.6 \times 10^{-19} \text{ J}$		
(ii)	Is the filament resistance lower or higher in a 500 W – 220 V light bulb than in a 100 W – 220 V bulb?		
(iii)	An uncharged conducting hollow sphere is placed in the field of a positive charge q. What will be the net flux through the shell?		
(iv)	Describe the factors affecting EMF.		
(v)	What is ferrofluid and why it is invented?		
(vi)	Define motional emf. Also give its relation.		
(vii)	According to equation $E = mc^2$, is it possible to create a single electron from energy? Explain.		
(viii)	What are Mesons? Give example.		
(ix)	How would you explain the energy of alpha and beta particles in a radioactive decay with the help of graphs?		
SECTION-II			
NOTE: Write answers of any three questions.			3 × 8 = 24
5.(a)	What is precision and accuracy also write a note on moment of inertia.		5
(b)	A 20 g ball hits the wall of a squash court with a constant force of 50 N. If the time of impact of force is 0.50 sec, find the impulse.		3
6.(a)	State Archimedes's principle. Discuss the interconversion of potential energy and kinetic energy ignoring the frictional force.		5
(b)	The turbine in a steam power plant takes steam from boiler at 427°C and exhausts into a low temperature reservoir at 77°C. What is the maximum possible efficiency?		3
7.(a)	What is Laser Interferometer Gravitational Wave Observatory(LIGO)? Describe basic components and working of Gravitational Wave Interferometer.		5
(b)	A radio antenna broadcasts 500 watts of power. If the signal is received at a distance of 10 km, what is the intensity of the signal?		3
8.(a)	State and explain Kirchhoff's Second Rule.		5
(b)	A metallic rod is moving through a uniform magnetic field of 0.2 T. The emf induced across its ends is found to be 0.8 V. It is required to induce an emf of 2.4 V across its ends. How much field strength is needed for this?		3
9.(a)	Explain the four fundamental forces of nature. Compare their relative strengths and ranges.		5
(b)	Find the mass m of a moving object with speed of 0.8 c.		3

INTERMEDIATE PART-I (11 th Class)		2026 (1 st -A)	Roll No:
PHYSICS (NEW COURSE) PAPER-I		GROUP-II	
TIME ALLOWED: 2.40 Hours		SUBJECTIVE	
NOTE: Write same question number and its parts number on answer book, as given in the question paper.		MAXIMUM MARKS: 68	
SECTION-I			
2. Write the answers of any eight parts.			8 × 2 = 16
(i)	K.E of a body of mass m moving with speed v is given by $\frac{1}{2}mv^2$. What are dimension of KE?		
(ii)	Why does a hunter aiming a bird in a tree miss the target exactly at the bird?		
(iii)	The maximum horizontal range of a projectile is 800 m . Find the value of height attained by the projectile at $\theta = 60^\circ$.		
(iv)	Describe briefly effect of air resistance on the range and maximum height of projectile.		
(v)	What is critical velocity? Write its relation.		
(vi)	Can moment of inertia is depend on angular velocity? Give reason.		
(vii)	How does an astronaut feel weightlessness while orbiting from the Earth in a spaceship?		
(viii)	State the second law of motion in case of rotation.		
(ix)	When will you say that a force is conservative? Give two conditions.		
(x)	Prove that $P = \vec{F} \cdot \vec{v}$		
(xi)	A force acts on a ball with 14 ms^{-1} speed and bring its speed to 6 ms^{-1} . Has the force done positive or negative work? Explain your answer.		
(xii)	Show that 1 kilowatt-hour = 3.6 MJ		
3. Write the answers of any eight parts.			8 × 2 = 16
(i)	What is meant by (a) Cohesive force (b) Viscosity		
(ii)	Define stress and strain.		
(iii)	What will be effect on terminal velocity if the radius of droplet is doubled and coefficient of viscosity is four times.		
(iv)	State Torricelli's theorem and write the formula for speed of efflux.		
(v)	State 2 nd law of thermodynamics in two different forms.		
(vi)	How is work done (a) by a gas (b) on a gas?		
(vii)	What are the conditions for interference to occur?		
(viii)	What are coherent waves and coherent sources? Give examples.		
(ix)	What will be the apparent frequency of sound waves if the source moves towards the observer with half speed as the speed of sound waves?		
(x)	Define beats and write formula for beat frequency.		
(xi)	Name the methods to polarize the unpolarized light.		
(xii)	Find the angle θ between the transmission axis of the analyzer and polarizer if the intensity of light is reduced to half.		
4. Write the answers of any six parts.			6 × 2 = 12
(i)	Define electron-volt (eV). Show that $1\text{ eV} = 1.6 \times 10^{-19}\text{ J}$.		
(ii)	Why does the resistance of a conductor rise with rise in temperature?		
(iii)	Why the terminal potential difference of a battery decreases when the current drawn from it is increased?		
(iv)	Define Tesla(T), show that $1\text{ T} = 1\text{ NA}^{-1}\text{ m}^{-1}$		
(v)	Does the induced emf always act to decrease the magnetic flux through the circuit?		
(vi)	What will you do if you want to save a sensitive instrument from stray magnetic fields?		
(vii)	What are the two postulates of special theory of relativity?		
(viii)	What is the difference between beta particle and electron?		
(ix)	Is meson, a boson or fermion? Give reason.		
SECTION-II			
NOTE: Write answers of any three questions.			3 × 8 = 24
5.(a)	What is meant by a dimensionless quantity? Also write a note on artificial gravity.		5
(b)	The magnitude of cross and dot products of two vectors are $4\sqrt{3}$ and 4, respectively. Find the angle between the vectors.		3
6.(a)	Define escape velocity. State and prove continuity equation.		5
(b)	A gas undergoes a thermodynamic process where it absorbs 500 J of heat energy and performs 300 J work on its surroundings. Calculate the change in internal energy of the gas.		3
7.(a)	Define beats. Show that number of beats per second is equal to difference between the frequencies of two tuning forks.		5
(b)	A polarized light beam passes through a polarizer at an angle of 45° . Find the intensity of transmitted light if initial intensity is 100 Wm^{-2} .		3
8.(a)	What is a potentiometer? Describe its working.		5
(b)	A 20.0 cm wire carrying a current of 10.0 A is placed in a uniform magnetic field of 0.30 T . If the wire makes an angle of 40° with the direction of magnetic field, find the magnitude of the force acting on the wire.		3
9.(a)	State two fundamental postulates of the special theory of relativity. Discuss time dilation and variation of mass with velocity.		5
(b)	Determine the rest-mass energy of electron in eV. Its rest-mass is $0.000555u$		3

$$V = \frac{S}{t}$$

800

PAPER CODE: 2471		2026 (1 st -A)		Roll No: _____	
PHYSICS (NEW COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	If least count is 10 kg then 8.00×10^3 kg has significant figures:	1	2	3	4
2	Range of projectile at 30° with horizontal is same at an angle of:	45°	40°	90°	60°
3	In rotational motion analogous of force is:	Torque	Inertia	Velocity	Momentum
4	Ratio between orbital velocity and escape velocity is:	$\sqrt{2}$	$\frac{1}{\sqrt{2}}$	2	1
5	In isothermal process internal energy of system:	Increases	Decreases	Remains constant	Becomes infinity
6	A 20m high tank is full of water. A hole appear at middle. speed of efflux will be:	10 m/sec	14 m/sec	11.5 m/sec	9.8 m/sec
7	Pressure will be low when speed of fluid is:	Zero	Low	Constant	High
8	Distance covered by wave in one second is:	Wave length	Wave number	Wave speed	Frequency
9	Distance between Node and Next Antinode is:	λ	$\frac{\lambda}{4}$	$\frac{\lambda}{2}$	2λ
10	Which of the given is a primary source of gravitational waves?	Binary black hole merger	Solar flares	Earthquake	Solar wind
11	Number of electrons in one Coulomb charge are equal to:	1.6×10^{-19}	6.02×10^{-19}	6.25×10^{-20}	6.25×10^{18}
12	The force between charges is 28N when paraffin wax of relative permittivity 2.8 is introduced as medium force will be:	28N	15N	10N	20N
13	Work done by magnetic force on moving charge is:	$BqvI$	Zero	$F^{-1} \cdot d^{-2}$	$qvBd$
14	Which of the given relation is correct?	$1 \text{ Wb} = 1 \text{ T} \cdot \text{m}^2 = 1 \text{ N} \cdot \text{A}^{-1} \cdot \text{m}^{-1}$	$1 \text{ Tesla} = 10^4 \text{ gauss}$	$1 \text{ Gauss} = 10^{-4} \text{ Tesla}$	All of these
15	If speed of light were infinite then moving mass is:	$m = \frac{m_0}{1 - \frac{v^2}{c^2}}$	Zero	m_0	$2m_0$
16	1u =	931 MeV	931 eV	$1.6606 \times 10^{-27} \text{ kg}$	Both A and C
17	Which one of the carbon isotopes is unstable?	${}^6_6\text{C}$	${}^{12}_6\text{C}$	${}^{13}_6\text{C}$	Both B and C

PAPER CODE: 2473		2026 (1 st -A)		Roll No: _____	
PHYSICS (NEW COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	Which of the given relation is correct?	$1Wb - m^{-2} = 1NA^{-1}m^{-1}$	$1Tesla = 10^4 gauss$	$1Gauss = 10^{-4}Tesla$	All of these ✓
2	If speed of light were infinite then moving mass is:	∞	Zero	m_o ✓	$2m_o$
3	$1u =$	$931MeV$	$931eV$	$1.6606 \times 10^{-27} kg$	✓ Both A and C
4	Which one of the carbon isotopes is unstable?	${}^{14}_6C$ ✓	${}^{12}_6C$	${}^{13}_6C$	Both B and C
5	If least count is $10kg$ then $8.00 \times 10^3 kg$ has significant figures:	1	2	3 ✓	4
6	Range of projectile at 30° with horizontal is same at an angle of:	45°	40°	90°	✓ 60°
7	In rotational motion analogous of force is:	Torque ✓	Inertia	Velocity	Momentum
8	Ratio between orbital velocity and escape velocity is:	$\sqrt{2}$	$\frac{1}{\sqrt{2}}$ ✓	2	1
9	In isothermal process internal energy of system:	Increases	Decreases	Remains constant ✓	Becomes infinity
10	A $20m$ high tank is full of water. A hole appear at middle, speed of efflux will be:	$10m/sec$	$14m/sec$ ✓	$11.5m/sec$	$9.8m/sec$
11	Pressure will be low when speed of fluid is:	Zero	Low	Constant	✓ High
12	Distance covered by wave in one second is:	Wave length	Wave number	Wave speed ✓	Frequency
13	Distance between Node and Next Antinode is:	λ	$\frac{\lambda}{4}$ ✓	$\frac{\lambda}{2}$	2λ
14	Which of the given is a primary source of gravitational waves?	Binary black hole merger ✓	Solar flares	Earthquake	Solar wind
15	Number of electrons in one Coulomb charge are equal to:	1.6×10^{-19}	6.02×10^{-19}	6.25×10^{-20}	6.25×10^{18} ✓
16	The force between charges is $28N$ when paraffin wax of relative permittivity 2.8 is introduced as medium force will be:	$12N$	$15N$	$10N$ ✓	$20N$
17	Work done by magnetic force on moving charge is:	$BqvI$	Zero ✓	$F^{-1} \cdot d^{-2}$	$qvBd$

PAPER CODE: 2475		2026 (1 st -A)		Roll No: _____	
		INTERMEDIATE PART-I (11 th Class)			
PHYSICS (NEW COURSE)		PAPER-I		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	In isothermal process internal energy of system:	Increases	Decreases	Remains constant ✓	Becomes infinity
2	A 20m high tank is full of water. A hole appear at middle. speed of efflux will be:	10m/sec	14m/sec ✓	11.5m/sec	9.8m/sec
3	Pressure will be low when speed of fluid is:	Zero	Low	Constant	High ✓
4	Distance covered by wave in one second is:	Wave length	Wave number	Wave speed ✓	Frequency
5	Distance between Node and Next Antinode is	λ	$\frac{\lambda}{4}$ ✓	$\frac{\lambda}{2}$	2λ
6	Which of the given is a primary source of gravitational waves?	Binary black hole merger ✓	Solar flares	Earthquake	Solar wind
7	Number of electrons in one Coulomb charge are equal to:	1.6×10^{-19}	6.02×10^{-19}	6.25×10^{-20}	6.25×10^{18} ✓
8	The force between charges is 28N when paraffin wax of relative permittivity 2.8 is introduced as medium force will be:	12N	15N	10N ✓	20N
9	Work done by magnetic force on moving charge is:	BqvI	Zero ✓	$F^{-1} \cdot d^{-2}$	qvBd
10	Which of the given relation is correct?	$1Wb - m^{-2} = 1NA^{-1}m^{-1}$	1Tesla = 10^4 gauss	1Gauss = 10^{-4} Tesla	All of these ✓
11	If speed of light were infinite then moving mass is:	∞	Zero	m_0 ✓	$2m_0$
12	$1u =$	931MeV	931eV	$1.6606 \times 10^{-27} kg$	Both A and C ✓
13	Which one of the carbon isotopes is unstable?	${}^{14}_6C$ ✓	${}^{12}_6C$	${}^{13}_6C$	Both B and C
14	If least count is 10kg then $8.00 \times 10^3 kg$ has significant figures:	1	2	3 ✓	4
15	Range of projectile at 30° with horizontal is same at an angle of:	45°	40°	90°	60° ✓
16	In rotational motion analogous of force is:	Torque ✓	Inertia	Velocity	Momentum
17	Ratio between orbital velocity and escape velocity is:	$\sqrt{2}$	$\frac{1}{\sqrt{2}}$ ✓	2	1

PAPER CODE: 2477		2026 (1 st -A)		Roll No: _____	
		INTERMEDIATE PART-I (11 th Class)			
PHYSICS (NEW COURSE)		PAPER-I		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	Which of the given is a primary source of gravitational waves?	Binary black hole merger ✓	Solar flares	Earthquake	Solar wind
2	Number of electrons in one Coulomb charge are equal to:	1.6×10^{-19}	6.02×10^{-19}	6.25×10^{-20}	6.25×10^{18} ✓
3	The force between charges is 28N when paraffin wax of relative permittivity 2.8 is introduced as medium force will be:	12N	15N	10N ✓	20N
4	Work done by magnetic force on moving charge is:	BqvI	Zero ✓	$F^{-1} \cdot d^{-2}$	qvBd
5	Which of the given relation is correct?	$1Wb - m^{-2} = 1NA^{-1}m^{-1}$	1Tesla = 10^4 gauss	1Gauss = 10^{-4} Tesla	All of these ✓
6	If speed of light were infinite then moving mass is:	∞	Zero	m_0 ✓	$2m_0$
7	1u =	931MeV	931eV	$1.6606 \times 10^{-27} kg$	Both A and C ✓
8	Which one of the carbon isotopes is unstable?	✓ ${}^{14}_6C$	${}^{12}_6C$	${}^{13}_6C$	Both B and C
9	If least count is 10kg then $8.00 \times 10^3 kg$ has significant figures:	1	2	3 ✓	4
10	Range of projectile at 30° with horizontal is same at an angle of:	45°	40°	90°	60° ✓
11	In rotational motion analogous of force is:	Torque ✓	Inertia	Velocity	Momentum
12	Ratio between orbital velocity and escape velocity is:	$\sqrt{2}$	$\frac{1}{\sqrt{2}}$ ✓	2	1
13	In isothermal process internal energy of system:	Increases	Decreases	Remains constant ✓	Becomes infinity
14	A 20m high tank is full of water. A hole appear at middle, speed of efflux will be:	10m/sec	14m/sec ✓	11.5m/sec	9.8m/sec
15	Pressure will be low when speed of fluid is:	Zero	Low	Constant	High ✓
16	Distance covered by wave in one second is:	Wave length	Wave number	Wave speed ✓	Frequency
17	Distance between Node and Next Antinode is:	λ	$\frac{\lambda}{4}$ ✓	$\frac{\lambda}{2}$	2λ

PAPER CODE: 2472		2026 (1 st -A)		Roll No: _____	
PHYSICS (NEW COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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 the dimensions of force and energy is:	T	T^{-1}	L	L^{-1} ✓
2	The rate of change of momentum is: $\frac{F}{Ed}$	Impulse	✓ Force	Acceleration	Power
3	The moment of inertia of body depends upon:	Mass of the body and its distribution about axis of rotation ✓	Volume of the body	K.E of the body	Angular momentum of the body
4	A body moves a distance of $10m$ along a straight line under the action of $5N$ force. If the work done is $25J$, the angle which the force makes with the direction of motion of the body is:	0° $25 = Fd \cos \theta$	30°	90°	60° ✓
5	The region of stress-strain curve which obeys Hook's law:	Elastic region	Proportional limit ✓	Plastic region	Yield limit
6	A sphere of radius $0.01m$ falls through a viscous fluid and reaches terminal velocity $2ms^{-1}$. If the radius is doubled then new terminal velocity is: $vol \ 8^2$	$4ms^{-1}$	$6ms^{-1}$	$8ms^{-1}$ ✓	$10ms^{-1}$
7	In an adiabatic process, there is no:	Work done	Change in temperature	Change in internal energy	Exchange of heat ✓
8	The Doppler Effect used in astronomy is for:	Measuring the diameters of stars	Determining velocity of galaxies ✓	Analyzing properties of black holes	Studying behaviour of electromagnetic waves
9	Two coherent light sources of wavelength $\lambda = 600nm$ interfere on a screen. At a point P on the screen, the path difference between the two waves is $1.2\mu m$. What type of interference occurs at point P ? $\Delta S = 1.2 \times 10^{-6}m$	Partial constructive interference	Partial destructive interference	Constructive interference ✓	Destructive interference $\Delta S = n\lambda$ $\Delta S = (5) \times 600$
10	Which is the primary method used to detect gravitational waves?	LASER interferometry ✓	Optical telescopes	Radio telescopes	Gravitational lensing
11	The current through a conductor is $3.0A$ when it is attached across a potential difference of $6.0V$. How much power is used?	$0.5W$	$1.8W$	$18W$ ✓	$20W$
12	In NTC thermistor, when temperature increases, then the resistance:	Decreases linearly ✓	Remains constant	Increases exponentially	Decreases exponentially ✓
13	The unit $NA^{-1}m^{-1}$ is called:	Weber	Tesla ✓	Coulomb	Volt
14	The Earth's magnetic field is approximately like a bar magnet and which of the given statement is true?	South magnetic pole is towards south geographic pole and north magnetic pole is towards north geographic pole ✓	South magnetic pole is in center of two geographic poles	North magnetic pole is lying opposite of two geographic poles	South magnetic pole is towards the geographic north pole and the north magnetic pole is towards the geographic south pole
15	A bar $1.0m$ in length moves with $0.75c$. What is the contracted length of the bar?	$0.66m$ ✓	$0.55m$	$0.77m$	$0.88m$
16	A force which is used to loose the identity of the nucleus or an element is:	Gravitational force	Electromagnetic force	Strong nuclear force	Weak nuclear force ✓
17	Strange particles are always created in pairs in high-energy collisions because of the law of conservation of:	Charge	Strangeness	Energy	Momentum

PAPER CODE: 2474		2026 (1 st -A)			Roll No: _____
PHYSICS (NEW COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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 is the primary method used to detect gravitational waves?	LASER ☒ interferometry	Optical telescopes	Radio telescopes	Gravitational lensing
2	The current through a conductor is 3.0 A when it is attached across a potential difference of 6.0 V . How much power is used?	0.5 W	1.8 W	18 W ☒	20 W
3	In NTC thermistor, when temperature increases, then the resistance:	Decreases linearly	Remains constant	Increases exponentially	Decreases exponentially ☒
4	The unit $\text{NA}^{-1}\text{m}^{-1}$ is called:	Weber	Tesla ☒	Coulomb	Volt
5	The Earth's magnetic field is approximately like a bar magnet and which of the given statement is true?	South magnetic pole is towards south geographic pole and north magnetic pole is towards north geographic pole	South magnetic pole is in center of two geographic poles	North magnetic pole is lying opposite of two geographic poles	South magnetic pole is towards the geographic north pole and the north magnetic pole is towards the geographic south pole ☒
6	A bar 1.0 m in length moves with $0.75c$. What is the contracted length of the bar?	0.66 m ☒	0.55 m	0.77 m	0.88 m
7	A force which is used to loose the identity of the nucleus or an element is:	Gravitational force	Electromagnetic force	Strong nuclear force	Weak nuclear force ☒
8	Strange particles are always created in pairs in high-energy collisions because of the law of conservation of:	Charge	Strangeness	Energy	Momentum ☒
9	The ratio of the dimensions of force and energy is:	T	T^{-1}	L	L^{-1} ☒
10	The rate of change of momentum is:	Impulse	Force ☒	Acceleration	Power
11	The moment of inertia of body depends upon:	Mass of the body and its distribution about axis of rotation	Volume of the body	K.E of the body	Angular momentum of the body
12	A body moves a distance of 10 m along a straight line under the action of 5 N force. If the work done is 25 J , the angle which the force makes with the direction of motion of the body is:	0°	30°	90°	60° ☒
13	The region of stress-strain curve which obeys Hook's law:	Elastic region	Proportional limit ☒	Plastic region	Yield limit
14	A sphere of radius 0.01 m falls through a viscous fluid and reaches terminal velocity 2 ms^{-1} . If the radius is doubled then new terminal velocity is:	4 ms^{-1}	6 ms^{-1}	8 ms^{-1} ☒	10 ms^{-1}
15	In an adiabatic process, there is no:	Work done	Change in temperature	Change in internal energy	Exchange of heat ☒
16	The Doppler Effect used in astronomy is for:	Measuring the diameters of stars	Determining velocity of galaxies ☒	Analyzing properties of black holes	Studying behaviour of electromagnetic waves
17	Two coherent light sources of wavelength $\lambda = 600\text{ nm}$ interfere on a screen. At a point P on the screen, the path difference between the two waves is $1.2\mu\text{m}$. What type of interference occurs at point P ?	Partial constructive interference	Partial destructive interference	Constructive interference ☒	Destructive interference

PAPER CODE: 2476		2026 (1 st -A)			Roll No: _____
		INTERMEDIATE PART-I (11 th Class)			
PHYSICS (NEW COURSE)		PAPER-I		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 region of stress-strain curve which obeys Hook's law:	Elastic region	Proportional limit ✓	Plastic region	Yield limit
2	A sphere of radius $0.01m$ falls through a viscous fluid and reaches terminal velocity $2ms^{-1}$. If the radius is doubled then new terminal velocity is:	$4ms^{-1}$	$6ms^{-1}$	$8ms^{-1}$ ✓	$10ms^{-1}$
3	In an adiabatic process, there is no:	Work done	Change in temperature	Change in internal energy	Exchange of heat ✓
4	The Doppler Effect used in astronomy is for:	Measuring the diameters of stars	Determining velocity of galaxies ✓	Analyzing properties of black holes	Studying behaviour of electromagnetic waves
5	Two coherent light sources of wavelength $\lambda = 600nm$ interfere on a screen. At a point P on the screen, the path difference between the two waves is $1.2\mu m$. What type of interference occurs at point P ?	Partial constructive interference	Partial destructive interference	Constructive interference ✓	Destructive interference
6	Which is the primary method used to detect gravitational waves?	LASER interferometry ✓	Optical telescopes	Radio telescopes	Gravitational lensing
7	The current through a conductor is $3.0A$ when it is attached across a potential difference of $6.0V$. How much power is used?	$0.5W$	$1.8W$	$18W$ ✓	$20W$
8	In NTC thermistor, when temperature increases, then the resistance:	Decreases linearly	Remains constant	Increases exponentially	Decreases exponentially ✓
9	The unit $NA^{-1}m^{-1}$ is called:	Weber	Tesla ✓	Coulomb	Volt
10	The Earth's magnetic field is approximately like a bar magnet and which of the given statement is true?	South magnetic pole is towards south geographic pole and north magnetic pole is towards north geographic pole	South magnetic pole is in center of two geographic poles	North magnetic pole is lying opposite of two geographic poles	South magnetic pole is towards the geographic north pole and the north magnetic pole is towards the geographic south pole ✓
11	A bar $1.0m$ in length moves with $0.75c$. What is the contracted length of the bar?	$0.66m$ ✓	$0.55m$	$0.77m$	$0.88m$
12	A force which is used to loose the identity of the nucleus or an element is:	Gravitational force	Electromagnetic force	Strong nuclear force	Weak nuclear force ✓
13	Strange particles are always created in pairs in high-energy collisions because of the law of conservation of:	Charge	Strangeness ✓	Energy	Momentum
14	The ratio of the dimensions of force and energy is:	T	T^{-1}	L	L^{-1} ✓
15	The rate of change of momentum is:	Impulse	Force ✓	Acceleration	Power
16	The moment of inertia of body depends upon:	Mass of the body and its distribution about axis of rotation ✓	Volume of the body	K.E of the body	Angular momentum of the body
17	A body moves a distance of $10m$ along a straight line under the action of $5N$ force. If the work done is $25J$, the angle which the force makes with the direction of motion of the body is:	0°	30°	90°	60° ✓

PAPER CODE: 2478		2026 (1 st -A)		Roll No: _____	
PHYSICS (NEW COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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 Earth's magnetic field is approximately like a bar magnet and which of the given statement is true?	South magnetic pole is towards south geographic pole and north magnetic pole is towards north geographic pole	South magnetic pole is in center of two geographic poles	North magnetic pole is lying opposite of two geographic poles	South magnetic pole is towards the geographic north pole and the north magnetic pole is towards the geographic south pole ✓
2	A bar 1.0 m in length moves with 0.75 c . What is the contracted length of the bar?	0.66 m ✓	0.55 m	0.77 m	0.88 m
3	A force which is used to loose the identity of the nucleus or an element is:	Gravitational force	Electromagnetic force	Strong nuclear force	Weak nuclear force ✓
4	Strange particles are always created in pairs in high-energy collisions because of the law of conservation of:	Charge	Strangeness ✓	Energy	Momentum
5	The ratio of the dimensions of force and energy is:	T	T ⁻¹	L	L ⁻¹ ✓
6	The rate of change of momentum is:	Impulse	Force ✓	Acceleration	Power
7	The moment of inertia of body depends upon:	Mass of the body and its distribution about axis of rotation	Volume of the body	K.E of the body	Angular momentum of the body
8	A body moves a distance of 10 m along a straight line under the action of 5 N force. If the work done is 25 J , the angle which the force makes with the direction of motion of the body is:	0°	30°	90°	60° ✓
9	The region of stress-strain curve which obeys Hook's law:	Elastic region	Proportional limit ✓	Plastic region	Yield limit
10	A sphere of radius 0.01 m falls through a viscous fluid and reaches terminal velocity 2 ms ⁻¹ . If the radius is doubled then new terminal velocity is:	4 ms ⁻¹	6 ms ⁻¹	8 ms ⁻¹ ✓	10 ms ⁻¹
11	In an adiabatic process, there is no:	Work done	Change in temperature	Change in internal energy	Exchange of heat ✓
12	The Doppler Effect used in astronomy is for:	Measuring the diameters of stars	Determining velocity of galaxies ✓	Analyzing properties of black holes	Studying behaviour of electromagnetic waves
13	Two coherent light sources of wavelength $\lambda = 600\text{ nm}$ interfere on a screen. At a point P on the screen, the path difference between the two waves is $1.2\mu\text{ m}$. What type of interference occurs at point P ?	Partial constructive interference	Partial destructive interference	Constructive interference ✓	Destructive interference
14	Which is the primary method used to detect gravitational waves?	LASER interferometry ✓	Optical telescopes	Radio telescopes	Gravitational lensing
15	The current through a conductor is 3.0 A when it is attached across a potential difference of 6.0 V . How much power is used?	0.5 W	1.8 W	18 W ✓	20 W
16	In NTC thermistor, when temperature increases, then the resistance:	Decreases linearly	Remains constant	Increases exponentially	Decreases exponentially ✓
17	The unit $\text{NA}^{-1}\text{m}^{-1}$ is called:	Weber	Tesla ✓	Coulomb	Volt

25

Name of Subject: PHYSICS - (old Course) 1154 Group: I

Q. Nos	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer								
	6471		6473		6475		6477									
1	C	Milli	A	Transverse	B.	NS	C	Pressure								
2	A	$5 \times 10^{17} \text{ s}$	D	Microscope	A	$H = \frac{8t^2}{8}$	B	4 cm								
3	D	$\sqrt{14}$	A	50%	C	$\sqrt{2} \text{ mE}$	D	Radio wave								
4	C	3rd	B	$3.36 \times 10^5 \text{ s}^{-1}$	D	$\sqrt{2}$	C	$\lambda/4$								
5	B	NS	C	Milli	A	120°	A	Transverse								
6	A	$H = \frac{8t^2}{8}$	A	$5 \times 10^{17} \text{ s}$	C	Pressure	D	Microscope								
7	C	$\sqrt{2} \text{ mE}$	D	$\sqrt{14}$	B	4 cm	A	50%								
8	D	$\sqrt{2}$	C	3rd	D	Radio wave	B	$3.36 \times 10^5 \text{ s}^{-1}$								
9	A	120°	B	NS	C	$\lambda/4$	C	Milli								
10	C	Pressure	A	$H = \frac{8t^2}{8}$	A	Transverse	A	$5 \times 10^{17} \text{ s}$								
11	B	4 cm	C	$\sqrt{2} \text{ mE}$	D	Microscope	D	$\sqrt{14}$								
12	D	Radio wave	D	$\sqrt{2}$	A	50%	C	3rd								
13	C	$\lambda/4$	A	120°	B	$3.36 \times 10^5 \text{ s}^{-1}$	B	NS								
14	A	Transverse	C	Pressure	C	Milli	A	$H = \frac{8t^2}{8}$								
15	D	Microscope	B	4 cm	A	$5 \times 10^{17} \text{ s}$	C	$\sqrt{2} \text{ mE}$								
16	A	50%	D	Radio wave	D	$\sqrt{14}$	D	$\sqrt{2}$								
17	B	$3.36 \times 10^5 \text{ s}^{-1}$	C	$\lambda/4$	C	3rd	A	120°								
18																
19																
20																
Cross Check	-	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Total	5	3	5	4	5	3	5	4	5	3	5	4	5	3	5	4

مرثیہ کی بابت تصحیح سوالیہ پرچہ امارنگ Key

ہم نے مضمون فلسفہ پر part-I - old course گروپ I انٹر میڈیٹ پہلے سالانہ امتحان 2026ء کے سوالیہ پرچہ (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 ہمارے 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 ایڈز میگزین کیلئے تفصیلی مارکنگ ہدایات / مارکنگ اسکیم / Rubrics بھی تیار کی گئی ہیں۔

Prepared & Checked By:

Dated: 03/07/2026

S.#	Name	Designation	Institution	Mobile No	Signature
1	SIKANDAR-ALI	Ap	Govt Graduate College Shujabad	0303-6006243	SLA
2	DR. M. Tufiq Jumeel	AP	GOVE. W. A. C. Multan	0300-9537455	YF
3	DR. HAMMAD ABBAS	A/P	Emerson University, Multan	034-7470119	per
4	Mohammad Ali	A/P	R.G. College Shujabad	030235342	A
5					

Re CA
Dr. Asmat Ullah: Asst. Prof Govt. Graduate College 0300 673333
of Sci. Multan
Dr. Liaquat Khan: Asst. Prof Govt. W. H. I. G.C Multan 0315 6831405
04-67-21

INTERMEDIATE PART-I (11 th Class)		2026 (1 st -A)	Roll No: _____
PHYSICS (OLD COURSE)	PAPER-I	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 the answers of any eight parts.			8 × 2 = 16
(i)	Add the masses given in kg upto appropriate precision, 2.189, 0.089, 11.8 and 5.32.		
(ii)	Give the drawbacks to use the period of simple pendulum as a time standard.		
(iii)	The period of simple pendulum is measured by a stopwatch. What type of errors are possible in the time period?		
(iv)	Prove that $\sqrt{\frac{l}{g}}$ has the dimension of time.		
(v)	If x and y components are negative and equal in magnitude, then resultant has the orientation in which coordinate and what will be the orientation?		
(vi)	The vector sum of three vectors gives a zero resultant. What can be the orientation of the vectors?		
(vii)	Can a body rotate about its centre of gravity under the action of its weight?		
(viii)	In rocket propulsion, how the problem of mass of fuel is overcome?		
(ix)	An object is thrown vertically upward. Discuss the sign of acceleration due to gravity, relative to velocity, while the object is in air.		
(x)	Show that the range of projectile is maximum when projectile is thrown at an angle of 45° with the horizontal.		
(xi)	A girl drops a cup from a certain height, which breaks into pieces. What energy changes are involved?		
(xii)	An object has 1J of potential energy. Explain what does it mean?		
3. Write the answers of any eight parts.			8 × 2 = 16
(i)	Define and write relations for (a) average angular velocity (b) instantaneous angular acceleration		
(ii)	What is rotational K.E? Write its relation. How is it practically used by fly-wheels?		
(iii)	Explain how many minimum geostationary satellites are required for global coverage of T.V. transmission. What should be their orientation?		
(iv)	Find moment of inertia of a rotating solid cylinder of mass 5kg and radius 0.20m.		
(v)	Define viscosity. Explain how viscosity of liquids and gases is affected by increase in temperature?		
(vi)	Explain the working of carburetor of motor car using Bernoulli's Principle.		
(vii)	Differentiate between linear frequency and angular frequency. How they are related to time period?		
(viii)	Can we realize an ideal simple pendulum? Explain.		
(ix)	Under what conditions does the addition of two simple harmonic motions produce a resultant which is also simple harmonic?		
(x)	Differentiate between mechanical waves and electromagnetic waves.		
(xi)	Write principle of superposition of waves. How are stationary waves produced?		
(xii)	As a result of a distant explosion, an observer senses a ground tremor first and then hears the explosion. Explain the time difference.		
4. Write the answers of any six parts.			6 × 2 = 12
(i)	What is function of semi-silvered glass plate in Michelson's Interferometer?		
(ii)	Under what conditions two or more sources of light behave as coherent sources?		
(iii)	An oil film spreading over a wet footpath shows colours. Explain how does it happen?		
(iv)	How the light signal is transmitted through the optical fibre?		
(v)	Why would it be advantageous to use blue light with a compound microscope?		
(vi)	What are the conditions for total internal reflection?		
(vii)	Prove that $H = P\Delta V$		
(viii)	What happens to the temperature of the room, when an aircondition is left running on a table in the middle of the room?		
(ix)	Specific heat of a gas at constant pressure is greater than specific heat at constant volume. Why?		
SECTION-II			
NOTE: Write answers of any three questions.			3 × 8 = 24
5.(a)	Prove that the magnitude of relative velocity of approach is equal to the magnitude of relative velocity of separation in an elastic collision in one dimension?		5
(b)	A force $\vec{F} = (2\hat{i} + 3\hat{j})$ units, has its points of application moved from the point A(1, 3) to the point B(5, 7). Find the work done.		3
6.(a)	Define Apparent weight. How Apparent weight changes in a lift? Explain.		5
(b)	A brick of mass 2.0 Kg is dropped from a rest position 5.0 m above the ground. What is its velocity at a height of 3.0 m above the ground?		3
7.(a)	State first law of thermodynamics. Explain its two applications.		5
(b)	How large must a heating duct be if air moving 3.0 ms ⁻¹ along it can be replenish the air in a room of 300 m ³ volume every 15 min? Assume air's density remains constant.		3
8.(a)	How stationary waves are produced in a stretched string? Derive expressions for nth mode frequency and wavelength.		5
(b)	A block of weighing 4.0 kg extends a spring by 0.16 m from its unstretched position. The block is removed and a 0.50 kg body is hung from the same spring. If the spring is now stretched and then released, what is its period of vibration?		3
9.(a)	Describe the diffraction of X-rays through crystals. Also describe the Braggs equation.		5
(b)	A converging lens of focal length 5.0 cm is used as a magnifying glass. If the near point of the observer is 25 cm and the lens is held close to the eye, calculate the distance of the object from the lens.		3

PAPER CODE: 6471		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	Ratio of prefix femto to Pico is:	Kilo	Deci	Milli✓	Centi
2	Age of universe approximately is:	$\sqrt{5} \times 10^{17} s$	$8.6 \times 10^4 s$	$3.2 \times 10^{17} s$	$1.4 \times 10^7 s$
3	If $\vec{A} = 2\hat{i} - 3\hat{j} + \hat{k}$, then magnitude of $\vec{A}$ is:	14	4	Zero	$\sqrt{14}$
4	In which quadrant $-2\hat{i} - 2\hat{j}$ lies?	1 st	2 nd	3 rd ✓	4 th
5	Alternate unit to $kg\ m\ s^{-1}$ is:	Js	Ns✓	Nm	N
6	Relation between height and time of flight for projectile is:	$H = \frac{gt^2}{8}$	$H = \frac{8t^2}{g}$	$H = \frac{8g}{t^2}$	$H = \frac{8}{gt^2}$
7	K.E of a body is E , its momentum is:	$2mE$	$\frac{2E}{m}$	$\sqrt{2mE}$	$\sqrt{\frac{mE}{2}}$
8	Ratio of escape velocity to critical velocity is:	1	$\frac{1}{2}$	$\sqrt{\frac{1}{2}}$	$\sqrt{2}$
9	A geostationary satellite occupies a longitude of:	120°✓	100°	90°	180°
10	ρgh in Bernoulli's equation has same unit as:	Work	Volume	Pressure✓	Force
11	Distance covered by a body in one vibration is 16 cm, the amplitude is:	2 cm	$\sqrt{4} cm$	8 cm	16 cm
12	Radar transmits and receives:	X-rays	U.V waves	Microwaves	Radio waves✓
13	Distance between node and antinode in stationary waves is equal to:	λ	$\frac{\lambda}{2}$	$\frac{\lambda}{4}$ ✓	$\frac{\lambda}{3}$
14	Polarization of light proves that light waves are:	Transverse✓	Longitudinal	Very fast	Electromagnetic
15	Which is not essential component of spectrometer?	Collimator	Turn table	Telescope	Microscope✓
16	Efficiency of heat engine working between 27°C and 327°C will be:	50%✓	90%	40%	61%
17	Latent heat of fusion of ice is:	$3.36 \times 10^6 J K^{-1}$	$3.36 \times 10^5 J k^{-1} g^{-1}$ ✓	$3.36 \times 10^{-5} J k^{-1} g^{-1}$	$3.36 \times 10^{-5} J k^{-1}$

17(O)(Obj)(★)-2026(1st-A)-1000 (MULTAN)

PAPER CODE: 6473		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	Polarization of light proves that light waves are:	Transverse ✓	Longitudinal	Very fast	Electromagnetic
2	Which is not essential component of spectrometer?	Collimator	Turn table	Telescope	✓ Microscope
3	Efficiency of heat engine working between 27°C and 327°C will be:	50 % ✓	90 %	40 %	61 %
4	Latent heat of fusion of ice is:	$3.36 \times 10^6 \text{ J K}^{-1}$	$3.36 \times 10^5 \text{ J k}^{-1} \text{ g}^{-1}$ ✓	$3.36 \times 10^{-5} \text{ J k}^{-1} \text{ g}$	$3.36 \times 10^{-5} \text{ J k}^{-1}$
5	Ratio of prefix femto to Pico is:	Kilo	Deci	Milli ✓	Centi
6	Age of universe approximately is:	$5 \times 10^{17} \text{ s}$ ✓	$8.6 \times 10^4 \text{ s}$	$3.2 \times 10^{17} \text{ s}$	$1.4 \times 10^7 \text{ s}$
7	If $\vec{A} = 2\hat{i} - 3\hat{j} + \hat{k}$, then magnitude of $\vec{A}$ is:	14	4	Zero	✓ $\sqrt{14}$
8	In which quadrant $-2\hat{i} - 2\hat{j}$ lies?	1 st	2 nd	3 rd ✓	4 th
9	Alternate unit to kg m s^{-1} is:	Js	Ns ✓	Nm	N
10	Relation between height and time of flight for projectile is:	$H = \frac{gt^2}{8}$ ✓	$H = \frac{8t^2}{g}$	$H = \frac{8g}{t^2}$	$H = \frac{8}{gt^2}$
11	K.E of a body is E , its momentum is:	$2mE$	$\frac{2E}{m}$	✓ $\sqrt{2mE}$	$\sqrt{\frac{mE}{2}}$
12	Ratio of escape velocity to critical velocity is:	1	$\frac{1}{2}$	$\sqrt{\frac{1}{2}}$	✓ $\sqrt{2}$
13	A geostationary satellite occupies a longitude of:	120° ✓	100°	90°	180°
14	ρgh in Bernoulli's equation has same unit as:	Work	Volume	✓ Pressure	Force
15	Distance covered by a body in one vibration is 16 cm, the amplitude is:	2 cm	4 cm ✓	8 cm	16 cm
16	Radar transmits and receives:	X - rays	U.V waves	Microwaves	Radio waves ✓
17	Distance between node and antinode in stationary waves is equal to:	λ	$\frac{\lambda}{2}$	✓ $\frac{\lambda}{4}$	$\frac{\lambda}{3}$

PAPER CODE: 6475		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	Alternate unit to $kg\ m\ s^{-1}$ is:	$J\ s$	$N\ s$ ✓	$N\ m$	N
2	Relation between height and time of flight for projectile is:	$H = \frac{gt^2}{8}$ ✓	$H = \frac{8t^2}{g}$	$H = \frac{8g}{t^2}$	$H = \frac{8}{gt^2}$
3	K.E of a body is E , its momentum is:	$2mE$	$\frac{2E}{m}$	$\sqrt{2mE}$ ✓	$\sqrt{\frac{mE}{2}}$
4	Ratio of escape velocity to critical velocity is:	1	$\frac{1}{2}$	$\sqrt{\frac{1}{2}}$	$\sqrt{2}$ ✓
5	A geostationary satellite occupies a longitude of:	120° ✓	100°	90°	180°
6	ρgh in Bernoulli's equation has same unit as:	Work	Volume	Pressure ✓	Force
7	Distance covered by a body in one vibration is $16\ cm$, the amplitude is:	$2\ cm$	$4\ cm$ ✓	$8\ cm$	$16\ cm$
8	Radar transmits and receives:	X – rays	U.V waves	Microwaves	Radio waves ✓
9	Distance between node and antinode in stationary waves is equal to:	λ	$\frac{\lambda}{2}$	$\frac{\lambda}{4}$ ✓	$\frac{\lambda}{3}$
10	Polarization of light proves that light waves are:	Transverse ✓	Longitudinal	Very fast	Electromagnetic
11	Which is not essential component of spectrometer?	Collimator	Turn table	Telescope	Microscope ✓
12	Efficiency of heat engine working between $27^\circ C$ and $327^\circ C$ will be:	$50\ %$ ✓	$90\ %$	$40\ %$	$61\ %$
13	Latent heat of fusion of ice is:	$3.36 \times 10^6\ J\ K^{-1}$	$3.36 \times 10^5\ J\ k^{-1}\ g$ ✓	$3.36 \times 10^{-5}\ J\ k^{-1}\ g$	$3.36 \times 10^{-5}\ J\ k^{-1}$
14	Ratio of prefix femto to Pico is:	Kilo	Deci	Milli ✓	Centi
15	Age of universe approximately is:	$5 \times 10^{17}\ s$ ✓	$8.6 \times 10^4\ s$	$3.2 \times 10^{17}\ s$	$1.4 \times 10^7\ s$
16	If $\vec{A} = 2\hat{i} - 3\hat{j} + \hat{k}$, then magnitude of $\vec{A}$ is:	14	4	Zero	$\sqrt{14}$ ✓
17	In which quadrant $-2\hat{i} - 2\hat{j}$ lies?	1 st	2 nd	3 rd ✓	4 th

17(O)(Obj)(★ ★ ★)-2026(1st-A)-1000 (MULTAN)

PAPER CODE: 6477		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	ρgh in Bernoulli's equation has same unit as:	Work	Volume	Pressure ✓	Force
2	Distance covered by a body in one vibration is 16 cm, the amplitude is:	2 cm	✓ 4 cm	8 cm	16 cm
3	Radar transmits and receives:	X – rays	U.V waves	Microwaves	✓ Radio waves
4	Distance between node and antinode in stationary waves is equal to:	λ	$\frac{\lambda}{2}$	✓ $\frac{\lambda}{4}$	$\frac{\lambda}{3}$
5	Polarization of light proves that light waves are:	Transverse ✓	Longitudinal	Very fast	Electromagnetic
6	Which is not essential component of spectrometer?	Collimator	Turn table	Telescope	✓ Microscope
7	Efficiency of heat engine working between 27° C and 327° C will be:	✓ 50 %	90 %	40 %	61 %
8	Latent heat of fusion of ice is:	$3.36 \times 10^6 \text{ J K}^{-1}$	$3.36 \times 10^5 \text{ J k}^{-1} \text{ g}$ ✓	$3.36 \times 10^{-5} \text{ J k}^{-1} \text{ g}$	$3.36 \times 10^{-5} \text{ J k}^{-1}$
9	Ratio of prefix femto to Pico is:	Kilo	Deci	Milli ✓	Centi
10	Age of universe approximately is:	$5 \times 10^{17} \text{ s}$ ✓	$8.6 \times 10^4 \text{ s}$	$3.2 \times 10^{17} \text{ s}$	$1.4 \times 10^7 \text{ s}$
11	If $\vec{A} = 2\hat{i} - 3\hat{j} + \hat{k}$, then magnitude of $\vec{A}$ is:	14	4	Zero	✓ $\sqrt{14}$
12	In which quadrant $-2\hat{i} - 2\hat{j}$ lies?	1 st	2 nd	3 rd ✓	4 th
13	Alternate unit to kg m s^{-1} is:	Js	Ns ✓	Nm	N
14	Relation between height and time of flight for projectile is:	$H = \frac{gt^2}{8}$ ✓	$H = \frac{8t^2}{g}$	$H = \frac{8g}{t^2}$	$H = \frac{8}{gt^2}$
15	K.E of a body is E, its momentum is:	2mE	$\frac{2E}{m}$	✓ $\sqrt{2mE}$	$\sqrt{\frac{mE}{2}}$
16	Ratio of escape velocity to critical velocity is:	1	$\frac{1}{2}$	$\sqrt{\frac{1}{2}}$	✓ $\sqrt{2}$
17	A geostationary satellite occupies a longitude of:	120° ✓	100°	90°	180°

17(O)(Obj)(★★★★)-2026(1st-A)-1000 (MULTAN)

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

Name of Subject: Physics part-1 Old Course Group: II

Q. Nos	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer	Paper Code	Correct Answer
	6472		6474		6476		6478	
1	D	1.024×10^{-4}	B	400 km	C	8	D	0°
2	C	72 m ²	C	1008/cm ³	B	Decreasing slit separation	C	10 m
3	A	10	A	Decreasing	D	$f_o + f_e$	B	mass of planet
4	B	$F \cos \theta$	D	Standing wave	A	increase	A	4-times
5	d	0°	C	8	C	Four	B	400 km
6	C	10 m	B	Decreasing slit separation	D	1.024×10^2	C	1.008/cm ³
7	B	mass of planet	D	$f_o + f_e$	C	72 m ²	A	Decreasing
8	A	4-times	A	increase	A	10	D	Standing wave
9	B	400 km	C	Four	B	$F \cos \theta$	C	8
10	C	1.008/cm ³	D	1.024×10^2	D	0°	B	Decreasing slit separation
11	A	Decreasing	C	72 m ²	C	10	D	$f_o + f_e$
12	D	standing wave	A	10	B	mass of planet	A	increase
13	C	8	B	$F \cos \theta$	A	4-times	C	Four
14	B	Decreasing slit separation	D	0°	B	400 km	D	1.024×10^2
15	D	$f_o + f_e$	C	10 m	C	1.008/cm ³	C	72
16	A	increase	B	mass of planet	A	Decreasing	A	10
17	C	Four	A	4-times	D	standing wave	B	$F \cos \theta$
18								
19								
20								
Cross Check	A B C D		A B C D		A B C D		A B C D	
Total	4454		4454		4454		4454	

سرٹیفکیٹ مابین صحیح سوالیہ پرچہ امارت کلگ

ہم نے مضمون _____ پرچہ _____ گروپ _____ ایئر میڈیٹ پہلا سالانہ امتحان 2026 کا سوالیہ پرچہ انتہائی معروضی (Subjective & Objective) کو مدنظر پیش 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 اسکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 03-7-26

S.#	Name	Designation	Institution	Mobile No	Signature
1	SIKANDAR ALI	Assistant Prof	Govt Graduate College Shujabad	0303-6006243	Ali
2	Dr. M. Tufiq Jami	AP	Govt. W. H. C. Multan	03009537455	Jami
3	Dr. HANIF ADOKAS	Asst. Prof	Emerson University Multan	0321-7686412	Adokas
4	Arshad Nisat	Asst. Prof	G. C. College Chiniot	03017486421	Nisat
5					

ہم نے درج بالا سوالیہ پرچہ (انتہائی معروضی + معروضی) "Key" اور ہدایات کے حوالے سے مکمل طور پر چیک کر لیا ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

Re-Checked By	Name	Designation	Institution	Mobile No	Signature
1	Dr. Asmat Ullah	Asst. Prof	Govt. College of Sc. Multan	03006753033	Ullah
2	Dr. Asmat Ullah	Asst. Prof	Govt. W. H. C. Multan	03150831405	Ullah

03-7-26

INTERMEDIATE PART-I (11 th Class)		2026 (1 st -A)	Roll No:
PHYSICS (OLD COURSE)	PAPER-I	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 the answers of any eight parts.			8 × 2 = 16
(i)	Why do we find it useful to have two units for the amount of substance, the kilogram and the mole?		
(ii)	The period of simple pendulum is measured by a stopwatch. What type of errors are possible in the time period?		
(iii)	Show that $E = mc^2$ is dimensionally correct.		
(iv)	Define radian and steradian.		
(v)	If $\vec{A} = \hat{i} + \hat{j} + \hat{k}$, $\vec{B} = 2\hat{i} - 3\hat{j} + 4\hat{k}$. Find $\vec{A} \cdot \vec{B}$		
(vi)	The vector sum of three vectors gives a zero resultant. What can be the orientation of the vectors?		
(vii)	If all the components of the vectors, $\vec{A}_1$ and $\vec{A}_2$ were reversed, how would this alter $\vec{A}_1 \times \vec{A}_2$?		
(viii)	Derive relation for force due to water flow on a wall.		
(ix)	Explain the circumstances in which the velocity $\vec{v}$ and acceleration $\vec{a}$ of a car are (a) Anti-parallel (b) Perpendicular to one another		
(x)	An object is thrown vertically upward. Discuss sign of acceleration due to gravity, relative to velocity, while the object is in the air.		
(xi)	A 70-kg mass lifts on stairs in 4.0s. The vertical height of the stairs is 4.5m. Calculate its power in watts.		
(xii)	What sort of energy is in compressed spring and a moving car?		
3. Write the answers of any eight parts.			8 × 2 = 16
(i)	Define centripetal force. Write its formula in both linear and angular measures.		
(ii)	Define angular momentum and write its vector relation. State the law of conservation of angular momentum.		
(iii)	Differentiate between real weight and apparent weight.		
(iv)	Why does a diver change his body positions before and after diving in the pool?		
(v)	What is meant by non-viscous and incompressible fluid flow?		
(vi)	What gauge pressure is required in the city mains for a stream from a fire hose connected to the mains to reach a vertical height of 15.0 m?		
(vii)	Find time period of an 8.0 kg body, attached to spring with spring constant $K = 200 \text{ N/m}$, executing SHM.		
(viii)	What happens to the period of a simple pendulum if (a) its length is doubled (b) its mass is doubled		
(ix)	Define the given terms: (a) restoring force (b) one vibration		
(x)	Define beat frequency. Write its relation and SI unit.		
(xi)	Define the term node and antinode. What is separation between them?		
(xii)	How should a sound source moves with respect to an observer so that the frequency of its sound does not change?		
4. Write the answers of any six parts.			6 × 2 = 12
(i)	The Centre of Newton rings is dark. Why?		
(ii)	Under what conditions two or more sources of light behave as coherent sources?		
(iii)	How would you distinguish between un-polarized and plane-polarized lights?		
(iv)	How the power is lost in optical fibre?		
(v)	What do you understand by linear magnification and angular magnification?		
(vi)	Why would it be advantageous to use blue light with a compound microscope?		
(vii)	Define reversible and irreversible processes. Give example for each.		
(viii)	Why does the pressure of a gas in a car tyre increase when it is driven through some distance?		
(ix)	Can the mechanical energy be converted completely into heat energy? If so, give an example.		
SECTION-II			
NOTE: Write answers of any three questions.			3 × 8 = 24
5.(a)	Define scalar product. Give its one example. Write any three characteristics of scalar product.		5
(b)	A 100g golf ball is moving to the right with a velocity of 20 ms^{-1} . It makes a head on collision with an 8 kg steel ball, initially at rest. Compute velocities of the balls after collision.		3
6.(a)	What is escape velocity and derive the expression for it. Also find its value on the surface of earth.		5
(b)	What is the least speed at which an aeroplane can execute a vertical loop of 1.0 km radius so that there will be no tendency for the pilot to fall down at the highest point.		3
7.(a)	Define pressure of gas. Prove that pressure exerted by the gas is directly proportional to the average translational kinetic energy of the gas molecules.		5
(b)	Water flows through a hose, whose internal diameter is 1cm at a speed of 1 ms^{-1} . What should be the diameter of the nozzle if the water is to emerge at 21 ms^{-1} ?		3
8.(a)	What is the effect of temperature on speed of sound? Prove that $v_t = v_o + 0.61t$		5
(b)	What should be the length of simple pendulum whose period is 1.0 s at a place where $g = 9.8 \text{ ms}^{-2}$? What is the frequency of such a pendulum?		3
9.(a)	What is spectrometer? Write down its construction and working.		5
(b)	In a double slit experiment the second order maximum occurs at $\theta = 0.25^\circ$. The wavelength is 650 nm . Determine the slit separation.		3

Fossil 18/10

PAPER CODE: 6472		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	102.4 can be written in scientific notation as:	1.024×10^3	1.024×10^{-1}	1.024×10^{-3}	1.024×10^2 ✓
2	The sides of a rectangle are 6.01 m and 12 m. Taking the significant figures into account, the area of rectangle is:	72.0 m ²	72.01 m ²	72 m ² ✓	72.1 m ²
3	Work done by the force $3\hat{i} + 2\hat{j}$ for the displacement $5\hat{j}$ will be:	10 ✓	15	25	Zero
4	A vector $\vec{F}$ makes an angle θ with y-axis then its y-component is:	$F \sin \theta$	$F \cos \theta$ ✓	F	$F \tan \theta$
5	The range of projectile is minimum at the angle of projection of:	30° ✓	60°	45°	0° ✓
6	A particle is thrown at an angle of 30° has range 10 m. An other is projected at 60° its range will be:	5 m	20 m	10 m ✓	8 m
7	Escape velocity of a body depends upon:	Body radius	Mass of planet ✓	Body mass	Body size
8	If the value of angular velocity is doubled keeping radius same. The centripetal force of same body will become:	4 times ✓	2 times	5 times	Half
9	The height of close orbiting satellite is not greater than:	200 km	400 km ✓	900 km	42000 km
10	The density of water at 4°C is:	1 kg/m ³	4.00 g/cm ³	1.00 g/cm ³ ✓	1.00 g/m ³
11	In mass spring oscillation on the rough surface, total energy is:	Decreasing ✓	Increasing	Same	Zero
12	If two waves of equal amplitude and frequency travelling in opposite directions overlapping, the resultant wave is a:	Shock waves	Travelling wave	Longitudinal wave	Standing wave ✓
13	Two sounding bodies produce 8 and 10 waves in 0.25 second in same direction. the beats per second will be:	32 ✓	4	8	6
14	Fringe spacing observed in Young's double slits experiment is increased by:	Decreasing wavelength	Decreasing slits separation ✓	Decreasing distance of screen	Sharp light
15	The length of telescope in normal adjustment of telescope is:	$f_o - 2f_e$	$f_o + 2f_e$	$f_o - f_e$	$f_o + f_e$ ✓
16	The entropy of the universe always:	Increases ✓	Decreases	Remains same	First increases then decreases
17	Number of steps in Carnot cycle are:	Eight	Six	Four ✓	Three

PAPER CODE: 6474		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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 height of close orbiting satellite is not greater than:	200 km	400 km	900 km	42000 km
2	The density of water at 4°C is:	1 kg / m ³	4.00 g / cm ³	1.00 g / cm ³	1.00 g / m ³
3	In mass spring oscillation on the rough surface, total energy is:	Decreasing	Increasing	Same	Zero
4	If two waves of equal amplitude and frequency travelling in opposite directions overlapping, the resultant wave is a:	Shock waves	Travelling wave	Longitudinal wave	Standing wave
5	Two sounding bodies produce 8 and 10 waves in 0.25 second in same direction. the beats per second will be:	2	4	8	6
6	Fringe spacing observed in Young's double slits experiment is increased by:	Decreasing wavelength	Decreasing slits separation	Decreasing distance of screen	Sharp light
7	The length of telescope in normal adjustment of telescope is:	$f_o - 2f_e$	$f_o + 2f_e$	$f_o - f_e$	$f_o + f_e$
8	The entropy of the universe always:	Increases	Decreases	Remains same	First increases then decreases
9	Number of steps in Carnot cycle are:	Eight	Six	Four	Three
10	102.4 can be written in scientific notation as:	1.024×10^3	1.024×10^{-1}	1.024×10^{-3}	1.024×10^2
11	The sides of a rectangle are 6.01 m and 12 m. Taking the significant figures into account, the area of rectangle is:	72.0 m ²	72.01 m ²	72 m ²	72.1 m ²
12	Work done by the force $3\hat{i} + 2\hat{j}$ for the displacement $5\hat{j}$ will be:	10	15	25	Zero
13	A vector $\vec{F}$ makes an angle θ with y-axis then its y-component is:	$F \sin \theta$	$F \cos \theta$	F	$F \tan \theta$
14	The range of projectile is minimum at the angle of projection of:	30°	60°	45°	0°
15	A particle is thrown at an angle of 30° has range 10 m. An other is projected at 60° its range will be:	5 m	20 m	10 m	8 m
16	Escape velocity of a body depends upon:	Body radius	Mass of planet	Body mass	Body size
17	If the value of angular velocity is doubled keeping radius same. The centripetal force of same body will become:	4 times	2 times	5 times	Half

PAPER CODE: 6476		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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	Two sounding bodies produce 8 and 10 waves in 0.25 second in same direction. the beats per second will be:	2	4	✓ 6	6
2	Fringe spacing observed in Young's double slits experiment is increased by:	Decreasing wavelength	Decreasing slits separation ✓	Decreasing distance of screen	Sharp light
3	The length of telescope in normal adjustment of telescope is:	$f_o - 2f_e$	$f_o + 2f_e$	$f_o - f_e$	$f_o + f_e$ ✓
4	The entropy of the universe always:	Increases ✓	Decreases	Remains same	First increases then decreases
5	Number of steps in Carnot cycle are:	Eight	Six	✓ Four	Three
6	102.4 can be written in scientific notation as:	1.024×10^3	1.024×10^{-1}	1.024×10^{-3}	1.024×10^2 ✓
7	The sides of a rectangle are 6.01 m and 12 m. Taking the significant figures into account, the area of rectangle is:	72.0 m ²	72.01 m ²	✓ 72 m ²	72.1 m ²
8	Work done by the force $3\hat{i} + 2\hat{j}$ for the displacement $5\hat{j}$ will be:	10 ✓	15	25	Zero
9	A vector $\vec{F}$ makes an angle θ with y-axis then its y-component is:	$F \sin \theta$	$F \cos \theta$ ✓	F	$F \tan \theta$
10	The range of projectile is minimum at the angle of projection of:	30°	60°	45°	✓ 0°
11	A particle is thrown at an angle of 30° has range 10 m. An other is projected at 60° its range will be:	5 m	20 m	✓ 10 m	8 m
12	Escape velocity of a body depends upon:	Body radius	Mass of planet ✓	Body mass	Body size
13	If the value of angular velocity is doubled keeping radius same. The centripetal force of same body will become:	4 times ✓	2 times	5 times	Half
14	The height of close orbiting satellite is not greater than:	200 km	400 km ✓	900 km	42000 km
15	The density of water at 4°C is:	1 kg / m ³	4.00 g / cm ³	✓ 1.00 g / cm ³	1.00 g / m ³
16	In mass spring oscillation on the rough surface, total energy is:	Decreasing ✓	Increasing	Same	Zero
17	If two waves of equal amplitude and frequency travelling in opposite directions overlapping, the resultant wave is a:	Shock waves	Travelling wave	Longitudinal wave	✓ Standing wave

PAPER CODE: 6478		2026 (1 st -A)		Roll No: _____	
PHYSICS (OLD COURSE)		INTERMEDIATE PART-I (11 th Class)			
PAPER-I		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 range of projectile is minimum at the angle of projection of:	30°	60°	45°	☒ 0°
2	A particle is thrown at an angle of 30° has range 10 m. An other is projected at 60° its range will be:	5 m	20 m	☒ 10 m	8 m
3	Escape velocity of a body depends upon:	Body radius	☒ Mass of planet	Body mass	Body size
4	If the value of angular velocity is doubled keeping radius same. The centripetal force of same body will become:	☒ 4 times	2 times	5 times	Half
5	The height of close orbiting satellite is not greater than:	200 km	☒ 400 km	900 km	42000 km
6	The density of water at 4°C is:	☒ 1 kg / m ³	4.00 g / cm ³	☒ 1.00 g / cm ³	1.00 g / m ³
7	In mass spring oscillation on the rough surface, total energy is:	☒ Decreasing	Increasing	Same	Zero
8	If two waves of equal amplitude and frequency travelling in opposite directions over-lapping, the resultant wave is a:	Shock waves	Travelling wave	Longitudinal wave	☒ Standing wave
9	Two sounding bodies produce 8 and 10 waves in 0.25 second in same direction, the beats per second will be:	2	4	☒ 8	6
10	Fringe spacing observed in Young's double slits experiment is increased by:	Decreasing wavelength	☒ Decreasing slits separation	Decreasing distance of screen	Sharp light
11	The length of telescope in normal adjustment of telescope is:	$f_o - 2f_e$	$f_o + 2f_e$	$f_o - f_e$	☒ $f_o + f_e$
12	The entropy of the universe always:	☒ Increases	Decreases	Remains same	First increases then decreases
13	Number of steps in Carnot cycle are:	Eight	Six	☒ Four	Three
14	102.4 can be written in scientific notation as:	1.024×10^3	1.024×10^{-1}	1.024×10^{-3}	☒ 1.024×10^2
15	The sides of a rectangle are 6.01 m and 12 m. Taking the significant figures into account, the area of rectangle is:	72.0 m ²	72.01 m ²	☒ 72 m ²	72.1 m ²
16	Work done by the force $3\hat{i} + 2\hat{j}$ for the displacement $5\hat{j}$ will be:	☒ 10	15	25	Zero
17	A vector $\vec{F}$ makes an angle θ with y-axis then its y-component is:	$F \sin \theta$	☒ $F \cos \theta$	F	$F \tan \theta$