2018 (A) Roll No: _____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME) GROUP-I

TIME ALLOWED: 2.40 Hours **SUBJECTIVE** MAXIMUM MARKS: 68

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

SECTION-I

2. Attempt any eight parts. **8 × 2 = 16**

(i) Do electrons tend to go to region of high potential or of low potential? Explain.

(ii) The potential is constant throughout a given region of space. Is the electrical field zero or non-zero in this region? Explain.

(iii) Define charging and discharging of a capacitor.

(iv) How sharks locate their prey? Explain briefly.

(v) Can a charged particle move through a magnetic field without experiencing any magnetic force? If so then how?

(vi) Why the resistance of an ammeter should be very low?

(vii) How can you use a magnetic field to separate isotopes of chemical element? Explain.

(viii) How might a loop of wire carrying a current be used as a compass? How could such a compass distinguish between north and south pole?

(ix) Does the induced emf always act to decrease the magnetic flux through a circuit? Explain.

(x) Can a transformer be used with D.C? Explain.

(xi) Show that $\mathcal{E}$ and $\Delta\phi/\Delta t$ have the same units.

(xii) Can an emf be produced in a D.C. motor? Would it be possible to use motor as a generator or source? Explain.

3. Attempt any eight parts. **8 × 2 = 16**

(i) What is the resistance of a Carbon resistor if its first band is red, second band is green, third band is orange and fourth band is gold?

(ii) Write name of any two effects of current.

(iii) Do bends in a wire affect its electrical resistance? Explain.

(iv) What is Impedance? Write its SI unit.

(v) At what frequency, will an inductor of inductance 1.0 H have a reactance of 500Ω?

(vi) How many times per second, will an incandescent lamp reach maximum brilliance when connected to a $50\,Hz$ source?

(vii) Define Elasticity and Plasticity.

(viii) Distinguish between Crystalline and Amorphous solids and give an example for each.

(ix) What is meant by Diamagnetic Substances? Give and example.

(x) Write the truth table of NAND gate.

(xi) Define open loop gain of an operational amplifier.

(xii) Why ordinary Silicon diodes do not emit light? Explain.

4. Attempt any six parts. **6 × 2 = 12**

(i) Define work function and threshold frequency.

(ii) Why don't we observe a Compton effect with visible light?

(iii) When does light behave as a wave? When does it behave as a particle?

(iv) Write down two properties and two uses of $x-$rays.

(v) What do we mean, when we say that the atom is excited?

(vi) Differentiate between mass-defect and binding energy.

(vii) Show that $1 a.m.u = 931 MeV$

(viii) What factors make a fusion reaction difficult to achieve?

(ix) How can radio activity help in the treatment of cancer?

SECTION-II

NOTE: - Attempt any three questions. **3 × 8 = 24**

5.(a) What is Rheostat? How can it be used as a variable resistor as well as potential divider? 1 + 4

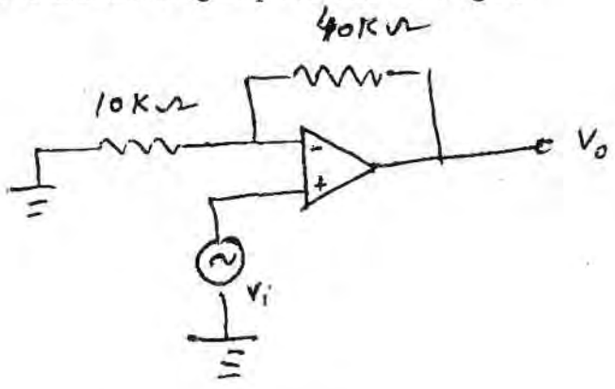
(b) Find the electric field strength required to hold suspended a particle of mass $1.0 \times 10^{-6} kg$ and charge $1.0 \mu C$ between two plates 10.0 cm apart. 3

6.(a) Define Electromagnetic Induction. Derive the expression for motional e.m.f. 1 + 4

(b) What shunt resistance must be connected across a galvanometer of 50.0Ω resistance which gives full scale deflection with $2.0 mA$ current, so as to convert it into an ammeter of range $10.0 A$? 3

7.(a) Describe an R – L – C series circuit. Draw its impedance diagram and derive expression for its resonance frequency. Also write down its two properties. 1 + 1 + 2 + 1

(b) Calculate the gain of non-inverting amplifier shown in figure. 3



8.(a) What is assumption of de-Broglie wavelength? How is it verified experimentally by Davisson and Germer experiment? 2 + 3

(b) A 1.25 cm diameter cylinder is subjected to a load of 2500 kg. Calculate the stress on the bar in mega pascals. 3

9.(a) What are isotopes and how isotopes are separated by mass spectrograph? Explain. 1 + 4

(b) Calculate the longest wavelength of radiation for the Paschen series. 3

Paper Code Number: 4471	2018 (A)	Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: 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. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) In photocopier, the drum is coated with a layer of:-

(A) Copper (B) Silver (C) Selenium (D) Gold

(2) If time constant in RC series circuit is small, then capacitor is charged:-

(A) Slowly (B) Rapidly (C) At constant rate (D) Intermittently

(3) The current flowing through each resistor of equal resistance in parallel combination is:-

(A)Same (B) Different (C) Zero (D) Infinite

(4) Two parallel wires carrying currents in the same direction:-

(A) Have no effect (B) Repel each other (C) Have no field around them (D) Attract each other

(5) Cathode ray oscilloscope works by deflecting beam of _____ .

(A) Protons (B) Electrons (C) Neutrons (D) Positrons

(6) The mutual inductance of the coils depends upon:-

(A) Density of coil (B) Material of coil (C) Geometry of coil (D) Stiffness of coil

(7) A 50 mH coil carries a current of 2.0 A. Then energy stored in its magnetic field is:-

(A) 0.1 J (B) 10 J (C) 100 J (D) 1000 J

(8) The phase at the positive peak is:-

(A) Zero (B) π (C) 2π (D) $\frac{\pi}{2}$

(9) In three phase A.C. supply, if first coil has phase 0^o, then the other two coils will have phases:-

(A) 0^o and 120^o (B) 120^o and 240^o (C) 240^o and 360^o (D) 0^o and 360^o

(10) In ferromagnetic substances, domain contains atoms nearly equal to:-

(A) 10^8 to 10^{12} (B) 10^{10} to 10^{14} (C) 10^{12} to 10^{16} (D) 10^{14} to 10^{18}

(11) _____ is the building block of every complex electronic circuit.

(A) Semiconductor diode (B) Resistor (C) Capacitor (D) Amplifier

(12) Photodiode is used for the detection of:-

(A) Light (B) Thermal radiation (C) Radio waves (D) Sound waves

(13) The rest mass of Photon is:-

(A) Infinite (B) Small (C) Zero (D) $1.67 \times 10^{-27}\,kg$

(14) Application of wave nature of particle is:-

(A) Photodiode (B) Simple microscope

(C) Compound microscope (D) Electron microscope

(15) X – rays are similar in nature to:-

(A) γ – rays (B) β – rays (C) α – rays (D) Cathode rays

(16) Hydrogen bomb is an example of:-

(A) Nuclear fission (B) Nuclear fusion (C) Chain reaction (D) Chemical reaction

(17) Various types of cancer are treated by:-

(A) Carbon – 14 (B) Nickel – 63 (C) Cobalt – 60 (D) Strontium – 90

Paper Code Number: 4473	2018 (A) INTERMEDIATE PART-II (12th CLASS)	Roll No._____

PHYSICS PAPER-II (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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Q.No.1

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(7) Two parallel wires carrying currents in the same direction:-

(A) Have no effect (B) Repel each other (C) Have no field around them (D) Attract each other

(8) Cathode ray oscilloscope works by deflecting beam of _____ .

(A) Protons (B) Electrons (C) Neutrons (D) Positrons

(9) The mutual inductance of the coils depends upon:-

(A) Density of coil (B) Material of coil (C) Geometry of coil (D) Stiffness of coil

(10) A 50 mH coil carries a current of 2.0 A. Then energy stored in its magnetic field is:-

(A) 0.1 J (B) 10 J (C) 100 J (D) 1000 J

(11) The phase at the positive peak is:-

(A) Zero (B) π (C) 2π (D) $\frac{\pi}{2}$

(12) In three phase A.C. supply, if first coil has phase 0^o, then the other two coils will have phases:-

(A) 0^o and 120^o (B) 120^o and 240^o (C) 240^o and 360^o (D) 0^o and 360^o

(13) In ferromagnetic substances, domain contains atoms nearly equal to:-

(A) 10^8 to 10^{12} (B) 10^{10} to 10^{14} (C) 10^{12} to 10^{16} (D) 10^{14} to 10^{18}

(14) _____ is the building block of every complex electronic circuit.

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(16) The rest mass of Photon is:-

(A) Infinite (B) Small (C) Zero (D) $1.67 \times 10^{-27}\, kg$

(17) Application of wave nature of particle is:-

(A) Photodiode (B) Simple microscope

(C) Compound microscope (D) Electron microscope

Paper Code Number: 4475

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: 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. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

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(A) Density of coil (B) Material of coil (C) Geometry of coil (D) Stiffness of coil

(17) A 50 mH coil carries a current of 2.0 A. Then energy stored in its magnetic field is:-

(A) 0.1 J (B) 10 J (C) 100 J (D) 1000 J

Paper Code Number: 4477	2018 (A) INTERMEDIATE PART-II (12th CLASS)	Roll No._____

PHYSICS PAPER-II (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: 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. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

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(A) Have no effect (B) Repel each other (C) Have no field around them (D) Attract each other

2018 (A) Roll No: _____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 2.40 Hours **SUBJECTIVE** MAXIMUM MARKS: 68

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

SECTION-I

2. Attempt any eight parts. **8 × 2 = 16**

(i) How can you identify that which plate of a capacitor is negatively charged?

(ii) Electric lines of force never cross. Why?

(iii) Prove that $1eV = 1.6 \times 10^{-19} J$

(iv) Explain briefly the role of deflection plates in inkjet printers.

(v) Why does the picture on a T.V screen become distorted when a magnet is brought near it?

(vi) How can you use a magnetic field to separate isotopes of chemical element?

(vii) Explain briefly the working of electron gun in CRO.

(viii) Differentiate between magnetic flux and flux density.

(ix) Does the induced emf always act to decrease the magnetic flux through a circuit? Explain.

(x) Is it possible to change both the area of the loop and the magnetic field passing through the loop and still not have an induced emf in the loop? Explain

(xi) A glass rod of length 'L' is moving perpendicular to the applied magnetic field B with velocity V. Explain briefly about the induced emf in it.

(xii) Define self inductance. Name any two factors upon which it depends.

3. Attempt any eight parts. **8 × 2 = 16**

(i) Is the filament resistance lower or higher in a 500 W, 220 V light bulb than in a 100W, 220 V bulb?

(ii) What is Wheatstone bridge? How can it be used to determine an unknown resistance?

(iii) What is Thermistor? Write its two uses.

(iv) What is the principle of Metal Detector? Write two uses of metal detector.

(v) How can you establish the formula for power in A.C circuits? Explain the role of power factor in it.

(vi) How does doubling of frequency affect the reactance of (a) An inductor (b) A capacitor?

(vii) Define Polymerization Reaction. Write two examples of Polymeric solids.

(viii) Define Brittle and Ductile Substances. Give two examples in each case.

(ix) Why is it impossible to have an isolated north or south pole of magnet? Explain.

(x) What is the role of potential barrier in a diode? How is it formed in a diode?

(xi) Describe by a circuit diagram, how current flows in a n – p – n transistor?

(xii) How is the XOR gate so called? Draw its symbol.

4. Attempt any six parts. **6 × 2 = 12**

(i) Differentiate between Photoelectric Effect and Compton Effect.

(ii) What are the measurements on which two observers in relative motion will always agree upon? Explain

(iii) Will bright light eject more electrons from a metal surface than dimmer light of the same colour?

(iv) Write any two Postulates of Bohr's model of the Hydrogen atom.

(v) What do we mean when we say that the atom is excited?

P.T.O

(vi) A particle which produces more ionization is less penetrating. Explain.

(vii) Why are heavy Nuclei Unstable? Explain.

(viii) What is meant by Absorbed Dose? Write its unit.

(ix) Define Hadrons and Leptons.

SECTION-II

NOTE: - Attempt any three questions. **$3 \times 8 = 24$**

5.(a) Define Resistivity. How does it depend upon temperature? Also define temperature coefficient of resistance. 1 + 3 + 1 = 5

(b) Determine the electric field at the position $\vec{r} = (4\hat{i} + 3\hat{j})\ m$ caused by a point charge $q = 5.0 \times 10^{-6}\ C$ placed at origin. 3

6.(a) Derive the relation for energy stored in an inductor. 5

(b) A power line 10.0 m high carries a current 200 A. Find the magnetic field of the wire at the ground. 3

7.(a) What is Transistor? Describe the use of transistor as an amplifier. Also calculate its voltage gain. 1+2+2

(b) What is the resonant frequency of a circuit which includes a coil of inductance $2.5\ H$ and a capacitance of $40\mu F$? 3

8.(a) Define Positron. How Davison and Germer experiment confirms the wave nature of particles? 1+4

(b) A 1.25 cm diameter cylinder is subjected to a load of 2500 Kg. Calculate the stress on the bar in mega pascals. 3

9.(a) Define Spontaneous and Stimulated emissions. Explain the Laser action in detail. 1+1+3

(b) A 75 kg person receives a whole body radiation dose of 24 m – rad, delivered by α – particles for which RBE factor is 12. Calculate (a) The absorbed energy in Joules and (b) The equivalent dose in rem. 3

Paper Code Number: 4472	2018 (A) INTERMEDIATE PART-II (12th CLASS)	Roll No._____

PHYSICS PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: 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. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) The value of ε_r for air is:-

(A) 1.6 (B) 1.06 (C) 1.006 (D) 1.0006

(2) In case of photocopier, a special dry, black powder called toner is given a:-

(A)Positive charge (B) Negative charge (C) Neutral (D) First positive then negative

(3) The potential difference between the head and tail of an electric eel can be up to:-

(A) 500 V (B) 600 V (C) 700 V (D) 800 V

(4) The current flowing towards the reader can be represented by a symbol:-

(A) Dot (B) Dash (C) Cross (D) Line

(5) The vector sum of the electric force and magnetic force is known as:-

(A) Maximum force (B) Lorentz force (C) Deflecting force (D) Newton's force

(6) The expression for energy density of solenoid is given as:-

(A) $\frac{B^2}{\mu_o}$ (B) $2\frac{B^2}{\mu_o}$ (C) $\frac{1}{2}\frac{B^2}{\mu_o}$ (D) $B^2\mu_o$

(7) A simple device that prevents the direction of current from changing is called:-

(A) Commutator (B) Rotor (C) Armature (D) Detector

(8) The unit of impedance is:-

(A) Volt (B) Ohm (C) Farad (D) Watt

(9) At resonance, the behaviour of R – L – C series circuit is:-

(A) Resistive (B) Capacitive (C) Inductive (D) Modulative

(10) Glass is also known as:-

(A) Solid (B) Liquid (C) Solid liquid (D) Gas

(11) The open loop gain of Op – Amp is of the order of:-

(A) 10^2 (B) 10^3 (C) 10^4 (D) 10^5

(12) The common emitter current amplification factor β is given by:-

(A) $\frac{I_C}{I_E}$ (B) $\frac{I_C}{I_B}$ (C) $\frac{I_E}{I_B}$ (D) $\frac{I_B}{I_E}$

(13) The speed of earth around its orbit is:-

(A) $10\,km/s$ (B) $20\,km/s$ (C) $25\,km/s$ (D) $30\,km/s$

(14) The unit of Plank's constant "h" is:-

(A) JC (B) J/C (C) JS (D) J/S

(15) In Helium – Neon Laser, the discharge tube is filled with:-

(A) 85 % of He (B) 80 % of He (C) 90 % of He (D) 95 % of He

(16) The half-life of radon gas is:-

(A) 3.8 hours (B) 3.8 minutes (C) 3.8 days (D) 3.8 years

(17) The background radiation to which we are exposed, on the average is:-

(A) $1\,mSv$ per year (B) $2\,mSv$ per year (C) $3\,mSv$ per year (D) $4\,mSv$ per year

Paper Code Number: 4474

2018 (A)

Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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(13) Glass is also known as:-

(A) Solid (B) Liquid (C) Solid liquid (D) Gas

(14) The open loop gain of Op – Amp is of the order of:-

(A) 10^2 (B) 10^3 (C) 10^4 (D) 10^5

(15) The common emitter current amplification factor β is given by:-

(A) $\frac{I_C}{I_E}$ (B) $\frac{I_C}{I_B}$ (C) $\frac{I_E}{I_B}$ (D) $\frac{I_B}{I_E}$

(16) The speed of earth around its orbit is:-

(A) $10\,km/s$ (B) $20\,km/s$ (C) $25\,km/s$ (D) $30\,km/s$

(17) The unit of Plank's constant "h" is:-

(A) JC (B) J/C (C) JS (D) J/S

Paper Code Number: 4476

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: 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. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) The unit of impedance is:-

(A) Volt (B) Ohm (C) Farad (D) Watt

(2) At resonance, the behaviour of R – L – C series circuit is:-

(A) Resistive (B) Capacitive (C) Inductive (D) Modulative

(3) Glass is also known as:-

(A) Solid (B) Liquid (C) Solid liquid (D) Gas

(4) The open loop gain of Op – Amp is of the order of:-

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(A) $\frac{I_C}{I_E}$ (B) $\frac{I_C}{I_B}$ (C) $\frac{I_E}{I_B}$ (D) $\frac{I_B}{I_E}$

(6) The speed of earth around its orbit is:-

(A) $10\,km/s$ (B) $20\,km/s$ (C) $25\,km/s$ (D) $30\,km/s$

(7) The unit of Plank's constant "h" is:-

(A) JC (B) J/C (C) JS (D) J/S

(8) In Helium – Neon Laser, the discharge tube is filled with:-

(A) 85 % of He (B) 80 % of He (C) 90 % of He (D) 95 % of He

(9) The half-life of radon gas is:-

(A) 3.8 hours (B) 3.8 minutes (C) 3.8 days (D) 3.8 years

(10) The background radiation to which we are exposed, on the average is:-

(A) $1mSv$ per year (B) $2mSv$ per year (C) $3mSv$ per year (D) $4mSv$ per year

(11) The value of ε_r for air is:-

(A) 1.6 (B) 1.06 (C) 1.006 (D) 1.0006

(12) In case of photocopier, a special dry, black powder called toner is given a:-

(A)Positive charge (B) Negative charge (C) Neutral (D) First positive then negative

(13) The potential difference between the head and tail of an electric eel can be up to:-

(A) 500 V (B) 600 V (C) 700 V (D) 800 V

(14) The current flowing towards the reader can be represented by a symbol:-

(A) Dot (B) Dash (C) Cross (D) Line

(15) The vector sum of the electric force and magnetic force is known as:-

(A) Maximum force (B) Lorentz force (C) Deflecting force (D) Newton's force

(16) The expression for energy density of solenoid is given as:-

(A) $\frac{B^2}{\mu_o}$ (B) $2\frac{B^2}{\mu_o}$ (C) $\frac{1}{2}\frac{B^2}{\mu_o}$ (D) $B^2\mu_o$

(17) A simple device that prevents the direction of current from changing is called:-

(A) Commutator (B) Rotor (C) Armature (D) Detector

Paper Code Number: 4478	2018 (A) INTERMEDIATE PART-II (12th CLASS)	Roll No._____

PHYSICS PAPER-II (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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

Name of Subject: Physics Session: 2016 – 2018

Group : 1st New Scheme Group: 2nd New Scheme

Q. Nos	Paper Code 4471	Paper Code 4473	Paper Code 4475	Paper Code 4477
1	C	A	D	B
2	B	B	B	B, C
3	A	C	C	A
4	D	C	D	D
5	B	B	A	B
6	B, C	A	C	C
7	A	D	D	D
8	D	B	A	A
9	B	B, C	B	C
10	C	A	C	D
11	D	D	C	A
12	A	B	B	B
13	C	C	A	C
14	D	D	D	C
15	A	A	B	B
16	B	C	B, C	A
17	C	D	A	D
18				
19				
20				

Q. Nos	Paper Code 4472	Paper Code 4474	Paper Code 4476	Paper Code 4478
1	D	A	B	B
2	B	C	A	C
3	B	B	C	A
4	A	D	D	B
5	B	B	B	A
6	C	B	D	C
7	A	A	C	D
8	B	B	A	B
9	A	C	C	D
10	C	A	B	C
11	D	B	D	A
12	B	A	B	C
13	D	C	B	B
14	C	D	A	D
15	A	B	B	B
16	C	D	C	B
17	B	C	A	A
18				
19				
20				

سرٹیفکیٹ بابت صحیح سوالیہ پرچہ/مارکنگ Key

ہم نے مضمون Physics پرچہ II گروپ I سکیم New انٹرسالانہ/ضمنی امتحان 2018 کا سوالیہ پرچہ انشائیہ ومعروضی(Subjective & Objective) کو بنظرِ عمیق چیک کرلیا 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 کرلیا 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 کرکے ان کا بغور مطالعہ کرلیا 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: 22-05-2018

S.#	Name	Designation	Institution	Mobile No	Signature
1	Shahid Iqbal.	A.P	Govt. W.H. Sci. College Multan	03077360030	
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5	Bashir Ahmad Bhatti	A-P	Govt. College Kabirwala	0300 6305057	

Re-Checked By ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی)، معروضی "Key" اور ہدایات کے حوالے سے مکمل طور پر تسلی کرلی ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

1	Abdul Ghani Ansari	A.P	Govt. AHS College Multan	0305-8438895	
2	Kaleem Ullah	A.P	Govt. College of Science	0301 7400172	

تاریخ

2018 (A) Roll No: _____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-I

TIME ALLOWED: 3.10 Hours **SUBJECTIVE** MAXIMUM MARKS: 83

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

SECTION-I

2. Attempt any Eight parts. **8 × 2 = 16**

(i) Define Potential Difference. Also define its unit.

(ii) State Coulomb's Law and Gauss's Law.

(iii) Suppose that you follow an electric field line due to positive point charge. Is electric field and potential increase or decrease?

(iv) Do electrons tend to go to region of high potential or of low potential?

(v) Define Galvanometer. Also define dead beat or stable galvanometer.

(vi) Draw circuit diagram of voltage measuring part of Avometer.

(vii) Suppose that a charge q is moving in a uniform magnetic field with a velocity V. Why there is no work done by the magnetic force?

(viii) How can a current loop be used to determine the presence of a magnetic field in a given region of space?

(ix) Write down any two methods for inducing emf.

(x) Define Transformer. Write down names of two causes of power loss in transformer.

(xi) Does the induced emf in a circuit depend on resistance of the circuit? Does the induced current depend on resistance of circuit?

(xii) Can a D.C. motor be turned into a D.C generator? What changes are required to be done?

3. Attempt any Eight parts. **8 × 2 = 16**

(i) Do bends in a wire affect its electrical resistance? Explain.

(ii) Define Drift Velocity. What is its value at room temperature?

(iii) Find the resistance in a 440 W and 220 V lighted bulb.

(iv) Find the frequency of an inductor of $1.0\,H$ having a reactance of $500\,\Omega$.

(v) How many times per second will an incandescent lamp reach maximum brilliance when connected to a $50\,Hz$ source?

(vi) What is meant by A.M and F.M?

(vii) Distinguish between Crystalline and Amorphous solids.

(viii) Define Stress and Strain. Write their units.

(ix) What are Super Conductors?

(x) Why is the base current in a transistor very small?

(xi) The anode of a diode is 0.2 V positive with respect to its cathode. Is it forward biased?

(xii) Why charge carriers are not present in the depletion region?

4. Attempt any Six parts. **6 × 2 = 12**

(i) We do not notice the de Broglie wave length for a pitched cricket ball. Explain why?

(ii) When does light behave as a wave? When does it behave as a particle?

(iii) As a solid is heated it begins to glow, why does it appear red first?

(iv) What are the advantages of lasers over ordinary light?

(v) Write two uses of Laser.

(vi) How can radioactivity help in the treatment of Cancer?

(vii) What do we mean by term Critical Mass?

(viii) Write the names of main types of Nuclear Reactors.

(ix) Distinguish between Nuclear Fission and Nuclear Fusion.

P.T.O

SECTION-II (Essay Type)

NOTE: - Attempt any three questions. **8 × 3 = 24**

5.(a) Define Electric Potential. Find the electric potential at a certain point due to a point charge. 1+4

(b) 1.0×10^7 electrons pass through a conductor in $1\,\mu S$. Find the current in ampere flowing through the conductor. Electronic charge is $1.6 \times 10^{-19}\,C$. 3

6.(a) Describe the method to determine the e/m of an electron. 5

(b) The back emf in a motor is 120 V when the motor is turning at 1680 rev per minute. What is the back emf when the motor turns 3360 rev per minute? 3

7.(a) What is meant by Rectification? Explain the action of semiconductor diode as full wave rectifier. 5

(b) What is the resonant frequency of a circuit which includes a coil of inductance $2.5\,H$ and a capacitance $40\,\mu F$? 3

8.(a) Write a note on Black Body Radiation. 5

(b) A 1.25 cm diameter cylinder is subjected to a load of 2500 kg. Calculate the stress on the bar in mega pascals. 3

9.(a) Give the postulates of Bohr's theory and also give the de-Broglie's interpretation of Bohr's orbits. 5

(b) A sheet of lead $5.0\,mm$ thick reduces the intensity of a beam of γ – rays by a factor 0.4. Find half value thickness of lead sheet which will reduce the intensity to half of its initial value. 3

SECTION-III (PRACTICAL)

10. (a) Give answers to any Four. **4 × 2 = 8**

(i) What are practical uses of a potentiometer? (ii) Why a diode does not conduct when it is reverse biased?

(iii) Define Volt and Ohm. (iv) What is OR Gate? Write its truth table.

(v) The galvanometer shows half deflection when both keys are closed and value of shunt resistance is adjusted. Why? (vi) Draw the circuit diagram of Half Deflection Method.

(vii) What is the difference between a Photocell and a Solar cell? (viii) Is tungsten filament an Ohmic device?

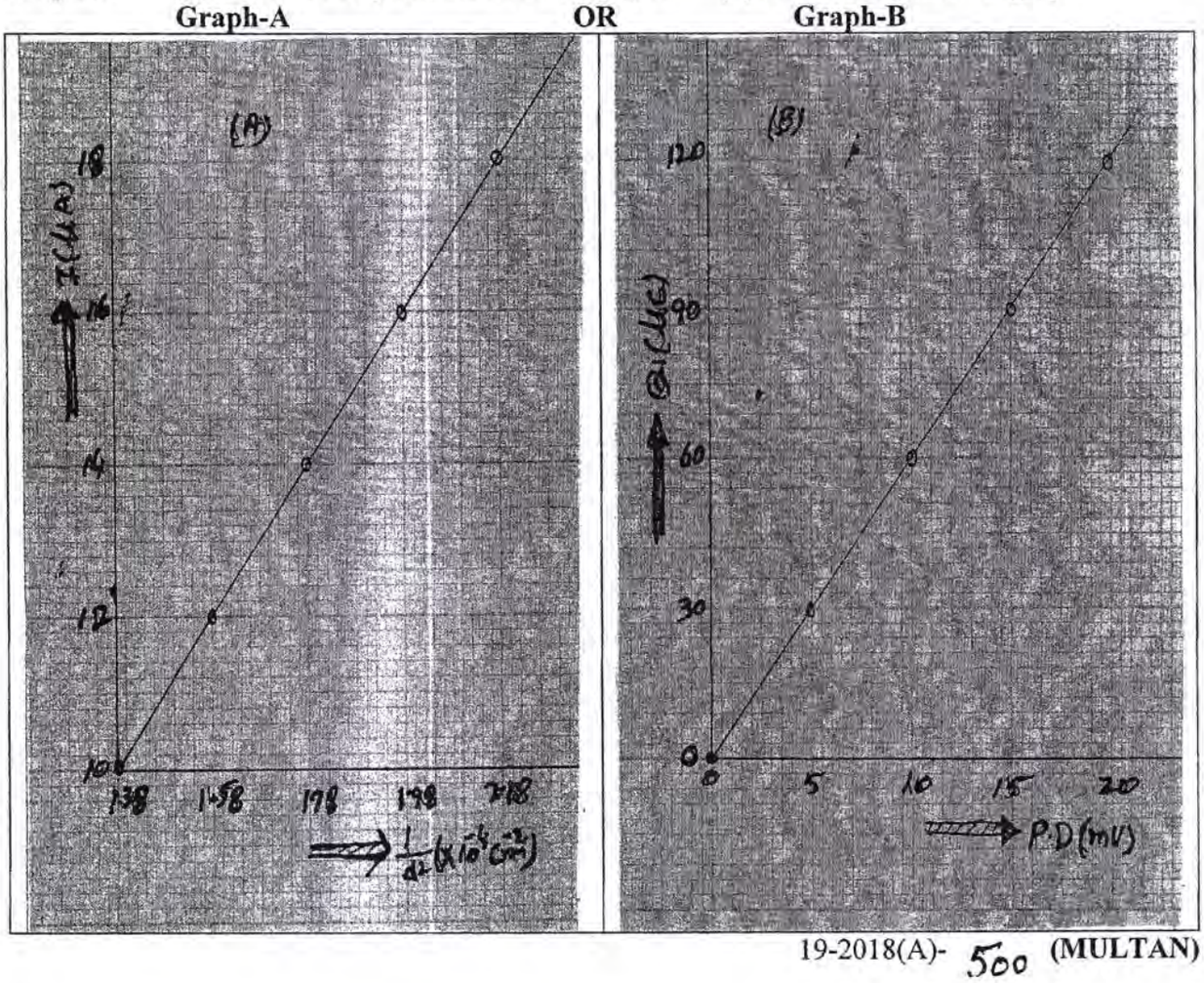
(b) Write down the brief procedure to study the relation between current and capacitance when different capacitors are used in A.C circuit. **OR** 3
Write down the brief procedure for the study of variation of photoelectric current with the intensity of light.

(c) Answer the questions given below on the basis of the following graph. 4

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

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

Graph-A **OR** **Graph-B**



Paper Code Number: 8471

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) If the distance between two charges is doubled, the electric force between them will become:-

(A) Half (B) Twice (C) Four times (D) One fourth

(2) The work done in moving a unit positive charge from one point to another against the electric field is a measure of:-

(A) Capacitance (B) Resistance (C) Electric intensity (D) Potential difference

(3) _____ bulb has the least resistance.

(A) 100 watt (B) 200 watt (C) 500 watt (D) 1000 watt

(4) In order to increase the range of an ammeter, the shunt resistance is:-

(A) Decreased (B) Increased (C) Kept constant (D) Some times increased and sometimes decreased

(5) Magnetic field inside a long solenoid is:-

(A)Uniform (B) Non – uniform (C) Circular (D) Negligible

(6) The direction of induced current is such that it opposes the cause which induces it. This is the statement of:-

(A) Faraday's Law (B) Ampere's Law (C) Lenz's Law (D) Gauss's Law

(7) A motor is a device which converts electrical energy into:-

(A) Heat energy (B) Light energy (C) Chemical energy (D) Mechanical energy

(8) The process of combining the low frequency signal with a high frequency signal is called:-

(A) Amplification (B) Rectification (C) Modulation (D) Resonance

(9) In a three phase A.C generator, the phase difference between each pair of coil is equal to:-

(A) 45° (B) 90° (C) 120° (D) 180°

(10) When a stress changes the length of a body, it is called:-

(A) Compressional stress (B) Volumetric stress (C) Shear stress (D) Tensile stress

(11) The value of potential barrier for germanium at room temperature is:-

(A) 0.3 V (B) 0.5 V (C) 0.7 V (D) 0.9 V

(12) In P – type substances majority charge carriers are:-

(A) Electrons (B) Protons (C) Positrons (D) Holes

(13) A positron is an antiparticle of:-

(A) Electron (B) Proton (C) Neutron (D) Photon

(14) Pair production can take place by using:-

(A) X – rays (B) Alpha rays (C) Beta rays (D) γ – rays

(15) Helium Neon laser discharge tube contains neon:-

(A) 15 % (B) 18 % (C) 25 % (D) 85 %

(16) When a nucleus emits beta particle then its atomic mass:-

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

(17) The isotopes of ${}_{1}^{1}H$ contain:-

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

Paper Code Number: 8473

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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Paper Code Number: 8475	2018 (A)	Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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(17) The direction of induced current is such that it opposes the cause which induces it. This is the statement of:-

(A) Faraday's Law (B) Ampere's Law (C) Lenz's Law (D) Gauss's Law

Paper Code Number: 8477

2018 (A)

Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) In order to increase the range of an ammeter, the shunt resistance is:-

(A) Decreased (B) Increased (C) Kept constant (D) Some times increased and sometimes decreased

(2) Magnetic field inside a long solenoid is:-

(A)Uniform (B) Non – uniform (C) Circular (D) Negligible

(3) The direction of induced current is such that it opposes the cause which induces it. This is the statement of:-

(A) Faraday's Law (B) Ampere's Law (C) Lenz's Law (D) Gauss's Law

(4) A motor is a device which converts electrical energy into:-

(A) Heat energy (B) Light energy (C) Chemical energy (D) Mechanical energy

(5) The process of combining the low frequency signal with a high frequency signal is called:-

(A) Amplification (B) Rectification (C) Modulation (D) Resonance

(6) In a three phase A.C generator, the phase difference between each pair of coil is equal to:-

(A) 45^o (B) 90^o (C) 120^o (D) 180^o

(7) When a stress changes the length of a body, it is called:-

(A) Compressional stress (B) Volumetric stress (C) Shear stress (D) Tensile stress

(8) The value of potential barrier for germanium at room temperature is:-

(A) 0.3 V (B) 0.5 V (C) 0.7 V (D) 0.9 V

(9) In P – type substances majority charge carriers are:-

(A) Electrons (B) Protons (C) Positrons (D) Holes

(10) A positron is an antiparticle of:-

(A) Electron (B) Proton (C) Neutron (D) Photon

(11) Pair production can take place by using:-

(A) X – rays (B) Alpha rays (C) Beta rays (D) γ – rays

(12) Helium Neon laser discharge tube contains neon:-

(A) 15 % (B) 18 % (C) 25 % (D) 85 %

(13) When a nucleus emits beta particle then its atomic mass:-

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

(14) The isotopes of ${}_1^1H$ contain:-

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

(15) If the distance between two charges is doubled, the electric force between them will become:-

(A) Half (B) Twice (C) Four times (D) One fourth

(16) The work done in moving a unit positive charge from one point to another against the electric field is a measure of:-

(A) Capacitance (B) Resistance (C) Electric intensity (D) Potential difference

(17) _____ bulb has the least resistance.

(A) 100 watt (B) 200 watt (C) 500 watt (D) 1000 watt

2018 (A) Roll No: _____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-II

TIME ALLOWED: 3.10 Hours **SUBJECTIVE** MAXIMUM MARKS: 83

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

SECTION-I

2. Attempt any Eight parts. **8 × 2 = 16**

(i) Write the formula for capacitance of equivalent capacitor of three capacitors with capacitances C_1, C_2 and C_3 for their (i) Parallel combination (ii) Series combination

(ii) What is Xerograph?

(iii) How can you identify that which plate of a capacitor is positively charged?

(iv) Electric lines of force can never cross each other. Why?

(v) What is stable or dead beat galvanometer?

(vi) How can we increase the range of an Ammeter and voltmeter?

(vii) A plane conducting loop is located in a uniform magnetic field that is directed along $X-$axis. For what orientation of the loop is the flux a maximum? For what orientation is the flux a minimum?

(viii) Suppose that a charge q is moving in a uniform magnetic field with velocity V. Why is there no work done by the magnetic force that acts on the charge q?

(ix) What is back motor effect in generator?

(x) What is Mutual Inductance? Define its unit.

(xi) When an electric motor, such as an electric drill, is being used, does it also act as a generator? If so what is the consequence of this?

(xii) Is it possible to change both the area of the loop and magnetic field passing through the loop and still not have an induced emf in the loop?

3. Attempt any Eight parts. **8 × 2 = 16**

(i) What are the difficulties in testing whether the filament of a lighted bulb obeys Ohm's law?

(ii) Explain why the terminal potential difference of a battery decreases when the current drawn from it is increased?

(iii) Define Electrical Power and Power dissipation in resistors.

(iv) How the reception of a particular radio station is selected on your radio set?

(v) What is meant by A.M and F.M?

(vi) What is Choke? Write its main uses.

(vii) Define the modulus of elasticity. Show that units of modulus of elasticity and stress are same.

(viii) Distinguish between crystalline solid and amorphous solid.

(ix) Define Proportional limit and ultimate tensile strength (UTS).

(x) Why charge carriers are not present in the depletion region?

(xi) Write the truth table of NAND gate. Also write its mathematical notation.

(xii) What is the net charge on a n – type or a p – type substance?

4. Attempt any Six parts. **6 × 2 = 12**

(i) Will higher frequency light eject greater number of electrons than low frequency light?

(ii) What is meant by inertial and non-inertial frame of reference?

(iii) If an electron and a proton have the same de-Broglie wavelength, which particle has greater speed?

(iv) Define Metastable state and Population inversion.

(v) How can the spectrum of Hydrogen contain so many lines although it contains one electron only?

(vi) What do the terms "Parent Element" and "Daughter element" mean?

(vii) Why are heavy Nuclei unstable?

(viii) What fraction of a radioactive sample decays after two half lives have elapsed?

(ix) Explain how alpha and beta particles may ionize an atom without directly hitting the electrons?

SECTION-II (Essay Type)

NOTE: - Attempt any three questions. **8 ×3 = 24**

5.(a) Define and explain resistivity. Explain its dependence upon temperature in detail. 5

(b) Find the electric field strength required to hold suspended a particle of mass $1.0 \times 10^{-6}\,kg$ and charge $1.0\mu C$ between two plates 10.cm apart. 3

6.(a) What do you mean by a current generator? Write down the principle, construction and working of an Alternating current generator. 1+1+1+2

(b) A power line 10.0 m high carries a current 200 A. Find the magnetic field of the wire at the ground. 3

7.(a) Describe an R–L–C Series circuit. Derive the relation for resonance frequency in this circuit. 5

(b) Calculate the gain of an amplifier in which the collector resistance R_C is $5k\Omega$. The input resistance between the base and emitter of a typical transistor is $2.5k\Omega$ and the value of its $\beta = 100$. 3

8.(a) What is Semiconductor? How p–type and n–type semiconductors are formed from a pure silicon crystal? 1 + 4

(b) Find the mass m of a moving object with speed $0.8c$. Find the mass 'm' in terms of rest mass 'm_o' 3

9.(a) What is nuclear reactor? Describe briefly the function of its four main parts. 5

(b) The wavelength of $K\ X-$ ray from Copper is $1.377 \times 10^{-10}\,m$. What is the energy difference between the two levels from which this transition results? 3

SECTION-III (PRACTICAL)

10. (a) Give answers to any Four. **4 ×2 = 8**

(i) What is shunt resistance? (ii) Draw circuit diagram for half deflection method.

(iii) Define electronic and conventional current. (iv) How is an ammeter connected in circuit?

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

(vii) What are practical uses of potentiometer? (viii) What is OR gate?

(b) Write down a brief procedure to find the resistance of voltmeter.

OR 3

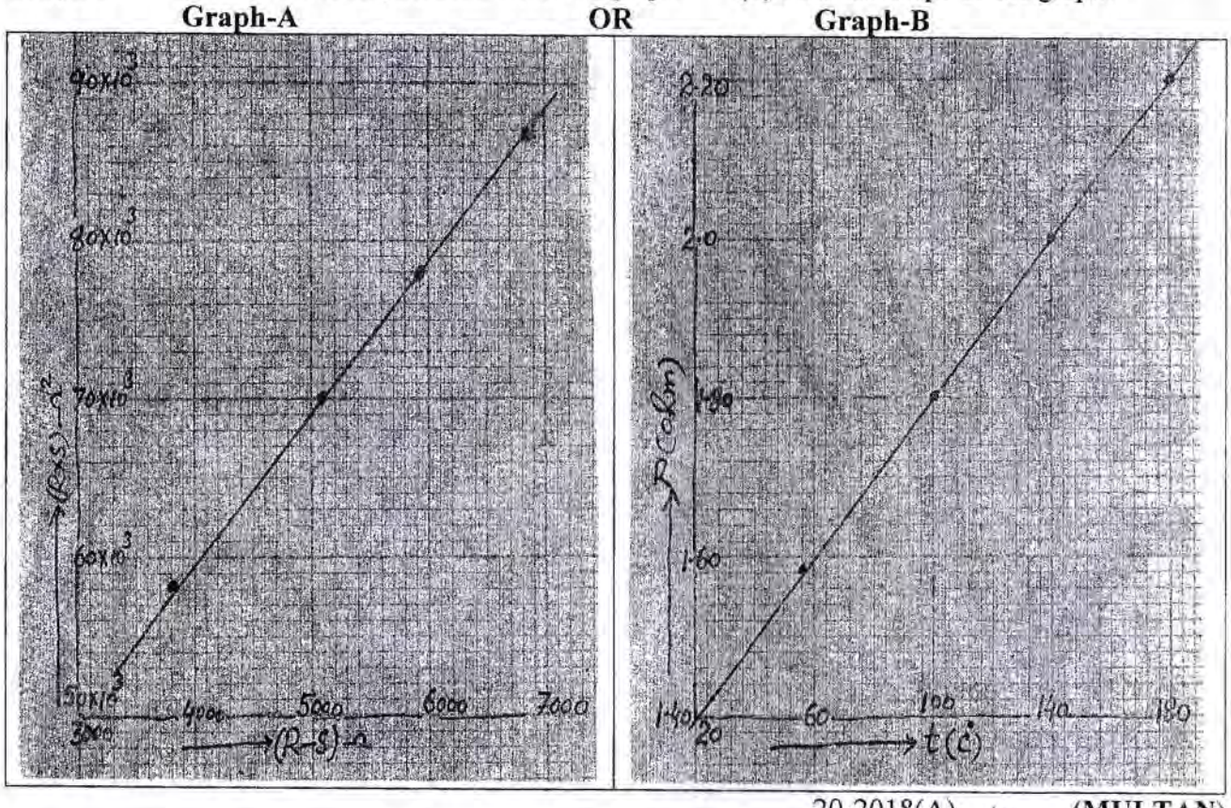
Write down a brief procedure to find high resistance by using Neon Flash Lamp.

(c) Answer the questions given below on the basis of the following graph. 4

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

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

Graph-A **OR** **Graph-B**



Paper Code Number: 8472

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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Q.No.1

(1) If time constant in RC – circuit is small, then the capacitor is charged or discharged:-

(A) Rapidly (B) Slowly (C) At constant rate (D) Intermittently

(2) The negative of potential gradient is:-

(A) Electrostatic force (B) Electromotive force (C) Potential difference (D) Electric intensity

(3) A wire of resistance R is cut into three equal parts, which are then joined in parallel, the new resistance is:- (A) R/I (B) $R/3$ (C) R (D) IR

(4) The magnetic force on an electron travelling with $v = 10^8 ms^{-1}$ parallel to magnetic field of strength $1 wb\, m^{-2}$ is:- (A) Zero (B) $10^{-12} N$ (C) $10^3 N$ (D) $1.6 \times 10^{-12} N$

(5) A proton travels from left to right in the plane of the paper in a magnetic field perpendicular to and directed out of the paper. It is deflected:-

(A) Up (B) Down (C) Into the paper (D) Out of the paper

(6) Current is flowing through a wire away from the reader. The direction of magnetic line of force is:-

(A) Parallel to the wire (B) Perpendicular to the wire (C) Clockwise (D) Anti clockwise

(7) The emf induced in the coil of an A.C. generator is due to the phenomenon of:-

(A) Electrostatic induction (B) Mutual induction (C) Electromagnetic induction (D) Self induction

(8) In R–L–C series circuit at resonance, the phase angle between voltage across inductor and voltage across capacitor is:- (A) 0^o (B) 90^o (C) 180^o (D) 270^o

(9) In a three phase A.C. generator, when angle of 1st phase is 30^o, then phase angle of 3rd phase of A.C. will be:-

(A) 150^o (B) 210^o (C) 240^o (D) 270^o

(10) When a stress decreases the length of the body, then this type of stress is called:-

(A) Volumetric stress (B) Shear stress (C) Tensile stress (D) Compressional stress

(11) The SI – unit of current gain is:-

(A) Volt (B) Ampere (C) Coulomb (D) No unit

(12) The reverse current through a semi conductor diode is due to:-

(A) Minority carriers (B) Majority carriers (C) Holes (D) Electrons

(13) If a material object moves with speed of light, its mass becomes:-

(A) Equal to its rest mass (B) 4 times of its rest mass (C) Double of its rest mass (D) Infinite

(14) The maximum KE of Photo electrons depends upon:-

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

(15) An electron in Hydrogen atom is excited from ground state to $n = 4$. How many _____ spectral lines are possible? (A) 3 (B) 4 (C) 5 (D) 6

(16) The ionization produced by γ – rays in air in ion pair/mm is about:-

(A) 1 (B) 100 (C) 10^4 (D) Zero

(17) The particles which do not experience strong nuclear force are called:-

(A) Baryons (B) Hadrons (C) Mesons (D) Leptons

Paper Code Number: 8474	2018 (A)	Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

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(16) A proton travels from left to right in the plane of the paper in a magnetic field perpendicular to and directed out of the paper. It is deflected:-

(A) Up (B) Down (C) Into the paper (D) Out of the paper

(17) Current is flowing through a wire away from the reader. The direction of magnetic line of force is:-

(A) Parallel to the wire (B) Perpendicular to the wire (C) Clockwise (D) Anti clockwise

Paper Code Number: 8476

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

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(17) A wire of resistance R is cut into three equal parts, which are then joined in parallel, the new resistance is:- (A) $R/1$ (B) $R/3$ (C) R (D) $1R$

Paper Code Number: 8478

2018 (A) Roll No._____

INTERMEDIATE PART-II (12th CLASS)

PHYSICS PAPER-II (OLD SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes **OBJECTIVE** MAXIMUM MARKS: 17

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Q.No.1

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(A) 1 (B) 100 (C) 10^4 (D) Zero

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

Name of Subject: Physics Session: 2016 – 2018

Group : 1st Old Scheme Group: 2nd Old Scheme

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

Q. Nos	Paper Code 8472	Paper Code 8474	Paper Code 8476	Paper Code 8478
1	A	C	A	D
2	D	C	B	A
3	A,B,C,D	D	C	D
4	A	C	C	A
5	B	D	C	D
6	C	A	D	A,B,C,D
7	C	D	C	A
8	C	B	D	B
9	D	D	A	C
10	C	A	D	C
11	D	D	B	C
12	A	A	D	D
13	D	D	A	C
14	B	A,B,C,D	D	D
15	D	A	A	A
16	A	B	D	D
17	D	C	A,B,C,D	B
18				
19				
20				

سرٹیفکیٹ بابت صحیح سوالیہ پرچہ/مارکنگ Key

ہم نے مضمون فزکس پرچہ II گروپ I, II سیکشن اول انٹرسالانہ/ضمنی امتحان 2018 کا سوالیہ پرچہ انشائیہ ومعروضی(Subjective & Objective) کو بنظرِ عمیق چیک کرلیا 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 کرلیا 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 کرلیا 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:** 22-05-2018

S.#	Name	Designation	Institution	Mobile No	Signature
1	Muhammad Rafiq	Asso. Prof.	G.C. Burewala	03347201282	
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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 تسلی کرلی ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

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