

THE AIR FORCE SCHOOL : SUBROTO PARK : DELHI CANTT-110010

Class -X

Sub: PHYSICS

Weekly Syllabus

Academic Session 2023-24

| Month | Week | Dates | | Days | No of Periods | Chapter | Contents | Syllabus |
|--------|------|-------|--|------|---------------|---------------------------------------|--|----------|
| March | | 09-27 | | | | Chap-9 Light reflection & refraction | 9.1 Reflection Of Light <ul style="list-style-type: none">• Laws of reflection of light• Real and virtual images• Spherical mirrors | |
| Apr-23 | I | 01 | 01-Working Saturday (Student) | 01 | 1 | Chap-9 Light reflection & refraction | 9.2 Spherical Mirrors <ul style="list-style-type: none">• Terms related to spherical mirrors. 9.2.1 Image formation by spherical mirrors | |
| | II | 03-07 | 04 - Mahavir Jayanti 07 – Good Friday | 03 | 2 | Chap-9- Light reflection & refraction | 9.2.2 Representation of images formed by spherical mirrors using ray diagrams <ul style="list-style-type: none">• Rules for image formation by spherical mirrors.• Image formation by concave mirror <u>Practical</u> To determine the focal length of the concave mirror | |
| | III | 10-14 | 14 - Ambedakar Jayanti | 04 | 2 | Chap-9. Light reflection & refraction | 9.2.2 Representation of images formed by spherical mirrors using ray diagrams <ul style="list-style-type: none">• Image formation by concave mirror• Uses of concave mirrors• Image formation by a | |

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| | | | | | | | convex mirror <ul style="list-style-type: none"> uses of convex mirrors Practical To determine the focal length of the concave mirror | |
| | IV | 17-21 | | 05 | 2 | Chap-9. Light reflection & refraction | 9.2.3 Sign convention for reflection by spherical mirrors 9.2.4 Mirror formula and magnification Practical- Determination of the focal length of convex lens by obtaining the image of a distant object. | |
| | V | 24-29 | 29-Working Saturday (Student) 29 – Parent Orientation VI & IX | 06 | 2 | Chap-9 Light reflection & refraction | 9.3 Refraction of light 9.3.1 Refraction through a rectangular glass slab 9.3.2 The refractive index Practical- Determination of the focal length of convex lens by obtaining the image of a distant object. | |
| May-23 | I | 01-05 | 05 – Budha Purnima 01-04 : ES-1 (XII)/ CT-1 (X) | 04 | 2 | Chap-9 Light reflection & refraction | 9.3.3 Refraction by spherical lenses 9.3.4 Image formation by lenses Practical Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. measure the angle of incidence, angle of refraction, angle of emergence and interpret the result. | ES-1 (XII)/ CT-1 (X) Date: 01-08 May Chap-9 Light reflection & refraction (up to 9.2.4 Mirror Formula and Magnification) |

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| | II | 08-12 | 08 : ES-1 (XII)/ CT-1 (X) 11,12 – The Quest | 05 | 2 | Chap-9 Light reflection & refraction | 9.3.5 Image formation in lenses using ray diagrams Practical Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. measure the angle of incidence, angle of refraction, angle of emergence and interpret the result. | |
| | III | 15-20 | 20- Working Saturday (Open House X & XII) | 06 | 2 | Chap-9 Light reflection & refraction | 9.3.6 Sign convention for spherical lenses 9.3.7 Lens formula and magnification 9.3.8 Power of a lens Practical -completion of practical file | |
| ***** summer break 22 may -30 jun 2023 ***** | | | | | | | | |
| Jul-23 | I | 01- | 01- School reopens for staff | 01 | | ----- | ----- | PT-I Class VI-X Date: 07 Jul – 19Jul Chap-10.: Light reflection & refraction (upto Image formation by lenses) ES-2 (XII): 07 Jul – 19Jul |
| | II | 03-07 | | 05 | 2 | CHAP-10 The Human eye and The colourful World | 10.1 The Human Eye 10.1.1 Power of accommodation 10.2 Defects of vision and their correction Practical- tracing the path of the rays of light through a glass prism | |
| | III | 10-14 | | 05 | 2 | CHAP-10 The Human eye and | 10.3 Refraction of light through a prism | |

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| | | | | | | The colourful World | 10.4 Dispersion of white light by a glass prism 10.5 Atmospheric refraction 10.6 Scattering of light Practical- tracing the path of the rays of light through a glass prism. | |
| | IV | 17-22 | 22 – Working Saturday (Students) | 06 | 2 | Chap-11- Electricity | 11.1 Electric current and circuit 11.2 Electric potential and potential difference 11.3 Circuit diagram <ul style="list-style-type: none"> Electric potential and potential difference Ohm's law Practical Studying the dependence of potential difference (v) across a resistor on the current (i) passing through it and determine its resistance. also plotting a graph between v and i. | |
| | V | 24-28 | 29-Muharram | 05 | 2 | Chap-11- Electricity | 11.4 Ohm's law 11.5 Factors on which the resistance of a conductor depends <ul style="list-style-type: none"> resistivity Practical studying the dependence of potential difference (v) across a resistor on the current (i) passing through it and determine its resistance. also plotting a graph between v and i. | |
| | VI | 31 | | 01 | 1 | Chap-12- Electricity | 11.6 Resistance of a system of resistors | |

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| | | | | | | | <ul style="list-style-type: none"> Resistance of a system of resistors in series | |
| Aug-23 | I | 01-05 | 05 – Working Saturday (Open House (VI-X), XII) | 05 | 2 | Chap-12- Electricity | <ul style="list-style-type: none"> Resistance of a system of resistors in parallel Advantages and disadvantages of series and parallel combination Practical- determination of the equivalent resistance of two resistors when connected in series and parallel. | |
| | II | 07-11 | | 05 | 2 | Chap-12- Electricity | 11.7 Heating Effect Of Electric Current 11.7.1 Practical applications of heating effect of electric current 11.8 Electric Power Practical- Determination of the equivalent resistance of two resistors when connected in series and parallel. | |
| | III | 14-18 | 15 – Independence Day | 04 | 2 | Chap-12- Electricity | NCERT back exercise | |
| | IV | 21-26 | 24,25-Class Test 26-Working Saturday (Students) 26-Annual Prize | 06 | 2 | | Revision | |

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| | | | Distribution | | | | | |
| | V | 28-32 | 30-Raksha Bandhan 28,29 -Class Test | 03 | 2 | | Revision | |
| Sep-23 | I | 01 | 01 -Class Test | 01 | 1 | | Revision | |
| | II | 04-08 | 07-Janmashtami | 04 | | Mid Term/ Hye Exam | | Mid Term (PT-II)/ HYE Date 11-23 Sep Chap-9 Light reflection & refraction CHAP-10 The Human eye and The colourful World CHAP-11- ELECTRICITY |
| | III | 11-16 | 16 – Working Saturday (Students) | 06 | | | | |
| | IV | 18-23 | 23 – Working Saturday (Students) | 06 | | | | |
| | V | 25-30 | 28-Milad-un-Nabi | 04 | 2 | Chap-12 Magnetic Effects of Electric Current | 12.1 Magnetic Field and Field Lines 12.2 Magnetic field due to a current-carrying conductor 12.2.1 Magnetic field due to a current through a straight conductor Practical- Determination of the equivalent resistance of two resistors when connected in series and parallel. | |
| Oct-23 | II | 02-07 | 02-Mahatma Gandhi's Birthday 07-Annual Prize Distribution | 05 | 2 | CHAP-12 MAGNETIC EFFECTS OF ELECTRIC CURRENT | 12.2.2 Right-hand thumb rule 12.2.3 Magnetic field due to a current through a circular loop Practical- determination of the equivalent resistance of two resistors when connected | |

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| | | | | | | | in series and parallel. | |
| | III | 09-14 | 14- Working Saturday(Open House VI-XII) | 06 | 2 | Chap-12 Magnetic Effects of Electric Current | 12.2.4 Magnetic field due to a current in a solenoid. 12.3 Force on a current-carrying conductor in a magnetic field | |
| | IV | 16-20 | | 05 | 2 | Chap-12 Magnetic Effects of Electric Current | 12.4 Domestic electric circuits NCERT back exercise | |
| | V | 23-27 | 23- Autumn Break 24- Dussehra 28-Maharishi Valmiki's Birthday | 03 | 2 | Chap-12 Magnetic Effects of Electric Current | NCERT back exercise | |
| | VI | 30-31 | | 02 | | | Revision | |
| | *** autumn break 23 oct 2023 *** | | | | | | | |
| Nov-23 | I | 01-04 | 01- Karwa Chouth 04 – Working Saturday (Students) | 03 | | | Revision | |
| | II | 06-10 | 07 – Annual Day | 05 | | | Revision | |

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| | III | 13-18 | 11-15 – Diwali Break | 03 | | | Revision | PT-III (IX & X); 20 Nov-30 Nov-Entire Syllabus |
| | IV | 20-24 | | 05 | | PT-III | | |
| | V | 27-30 | 27 – Guru Nank’s Birthday | 03 | | | | |
| Dec-23 | I | 01-02 | 01,02 – Annual Athletic Meet | 02 | | | Revision from Sample Papers | |
| | II | 04-09 | 09 – Sports Day | 06 | | | | |
| | III | 11-16 | 16-Working Saturday, Open House (IX,X & XII) | 06 | | | | |
| | IV | 18-22 | 20-22 – TAFS MUN 24,25 – Christmas Holidays | 05 | | | | |
| *** Winter Break from 26 Dec to 05 Jan 2024 *** | | | | | | | | |
| Jan-24 | I | 08-12 | | 05 | | | ----- | Pre-Board (X & XII): 09 Jan-23 Jan |
| | II | 15-20 | 20-Working Saturday, Open House (VI-VIII, XI) | 06 | | | ----- | |
| | III | 22-27 | 26-Republic Day 27- Farewell XII | 05 | | | ----- | |

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| | | | | | | | | |
| | IV | 29-31 | | 03 | | | Revision | |
| Feb-24 | I | 01-03 | 01,02- Class Test | 03 | | | Revision | |
| | | | 03-Working Saturday, Citation Ceremony, Open House (X& XII) | | | | | |
| | II | 05-09 | 05-08- Class Test | 05 | | | Revision | |
| | III | 12-16 | | 05 | | | Revision | |
| | IV | 19-23 | | 05 | | | ----- | |
| | V | 26-29 | | 04 | | | ----- | |
| Mar-24 | Annual Exam Classes VI-VIII – 26 Feb-11 Mar 2024 | | | | | | | |

Note: The examination syllabus as mentioned above is to be considered Tentative. The final syllabus for each exam will be uploaded on the website along with the Date Sheet at the time of the examination.