# SSC PUBLIC EXAMINATIONS - MARCH 2018

## 60 DAYS ACTION PLAN FROM DEC 23 TO MAR 12, 2018

## SUB : PHYSICAL SCIENCE

As 15 Marks weightage is given to conprehension (textual) passages. Focus should be given to passages in A/B/C readings in 6 units. (3+2) pattern from each reading.

| Day | A AND B | C,D GROUPS |
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| Day - 1 Heat | 1. Heat concept<br>2. Factors influence amount of heat<br>3. Specific heat<br>4. Experiment to fild the specific heat of melets<br>5. = m& , problems an it | 1. Evoproation, boiling differences<br>2. Explain why days paul during hot summer days using the concept of evoporation |
| Day - 2 Heat | 6. Condunsaion, Boiling, Meltings<br>7. Latarnt heat of Vapourisation what heat of fusion<br>8. Problems 1 and 6 in text book | 3. Why do we get alow on surface of a cold soft drink bottle kekey in open air<br>4. Applicent of specific heat |
| Day - 3 Heat | 9. Drilling of BITS Text book | Drilling of BITS in Text book |
| Day - 4 Chapter - 2 | 1. Balancing of chemical equations some examples<br>2. Why do we need to balance a chemical reaction<br>3. Conbustion Reactions - propare<br>4. Types of chemical reactions - chemical combintion | 1. Chemical decomposition - Heats of calcium larbrns experimat<br>2. Electrolysis of water |
| Day - 5 Chapter - 2 | 5. - Displacemet reactions<br>- Double displacement reactions<br>6. Oxidation and redation Redox reactions<br>7. Rancidify | 3. Differences betweens desplaremet and double displacement reactions<br>4. Distingwish between displarement and decomposition reaction<br>5. Explain Racidity |
| Day - 6 Chapter 2 | 8. Practice chemcial reactions in improve you learning<br>- 2,3,4,16<br>9. Diagrams - Electolysis of water<br>- Decomposistion of calcium carbonate<br>10. Some effects of oxidation in daily life | 6. Why do we apply paint on iron articles ?<br>7. Why do we k eep the food in air hight containers ?<br>8. Diagrams - electrolysis of water - Decomposition of calcium corbonats |
| Day - 7 Chap 2 | Drilling bits and drawing of diagrams | Drilling bits and drawing of diagrams |
| Day - 8 Chap - 3 | 1. Fermat priciple, pinhole lamera<br>2. Expt:- Laws of reflection<br>3. Differences between virtual image - real image<br>4. Differences between - convert concare mirror | 1. Laus of reflection - experment<br>2. Pinhole camera |
| Day - 9 Chap - 3 | 5. Labactivity - 2<br>6. Rules for ray diograms<br>7. Sign convention to the mirror euation | 3. differences between conver and concave mirror<br>4. lab activity - 2 |

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| Day - 10<br>Chap - 3 | 8. Ray diagrams of concove mirror<br>9. Magnificaion<br>10. Solar cooker<br>11. All bits in text book | 5. Ray diagrams of concare mirror<br>6. Solar cooker, mirrors formula<br>7. All Bits in text book |
| Day - 11<br>Chap - 4 | 1. Acds and basis - Reaction with metels<br>2. Nectealisations reaction<br>3. Propertics of Acids and basis | 1. Diagrams - Acid solution in water conducts electricity<br>- Reaction of Acids with Metals |
| Day - 12<br>Chap 4 | 4. Acid solution no water conducts electricity<br>5. What happens when water is added to acids<br>6. Strength of Acids & Basics - PH sclae | 2. PH Scale - in every day life<br>- Acid rains<br>- tooth decay<br>3. Uses of - Bleaching powder<br>- Washing soda<br>- Baking soda |
| Day - 13<br>Chap - 4 | 7. Uses of - Bleaching powder<br>- Washing soda<br>- baking soda<br>8. PH in every day life<br>9. BITS in text book<br>10. Water of crystelisation - activity | 4. What is reulsatisation - give example<br>5. Water of cryslatisation + activity<br>6. BITS - in text book |
| Day - 14<br>Chap - 5 | 1. Refraction, refractive Index - definiltus<br>2. Relation between angle of incidence - angle of reflarction - labactivity | |
| Day - 15<br>Chap - 5 | 3. Snells law - fromula, laus of refraction<br>4. Activity 6, and 7 explaints TIR<br>5. Lab activity 2 | 2. Snells Lab formula<br>3. Nature of image formed by glass slab - lab activity - 2 |
| Day - 16<br>Chap - 5 | 6. Applications of TIR - Brilliance of diamonds - optical fibres, mirages<br>7. BITS - | 4. Applications of TIR - Brilliance of diamond - Optical fibres<br>5. BITS |
| Day - 17 | Complete revision of BITS, Formula, - chapter 1 to 5 | 4. Applications of TIR - Brilliance of diamond - Optical fibres<br>5. BITS |
| Day - 19<br>Chap - 6 | 1. Linse - definition, different types of lenses<br>2. Lense - focous, focal length, radicus of ceruculure, pole, potnciple axis | 1. Ray diagrams for covex |
| Day - 20<br>Chap - 6 | 4. Lense formula, lense makers formula<br>5. Activity showing that focal length of lense depends on surrounding medium | 2. Lense formula, lense makes formula<br>3. Activity demonstration that focal length depends on surroundings medium |
| Day - 21<br>Chap - 6 | 6. How do you find focal length of a lense experimentally<br>7. BITS | 4. How do you find focal length of a lense experimentally<br>5. BITS |

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| Day - 22<br>Chap - 7 | 1. Stucture of human eye<br>2. Role of citiary muscles in adjusting the focal length of eye lens<br>3. Eye difuts - Myopia - Hypermetropea | 1. Role of ciliary muscles in adjusting the focal length<br>2. Eye defutes - Myopia - Hypermetropia - Diagrams also |
| Day - 23<br>Chap - 7 | 4. Power of lense<br>5. Refractive index of prison - lab activity<br>6. Dispession, scalering - deficutions<br>7. Formation of Rainbow - activity | 3. Formation of rainbow - activity |
| Day - 24<br>Chap - 7 | 8. Role of N2, O2 molcules in the blue color of sky<br>9. C.V. Raman - life History, Invention - Importance | 4. Role of N2, O2 molecules in blue colour of sky |
| Day - 25<br>Chap - 8 | 1. Ratherfolds atomic theory<br>2. Bohr's atomic theory | 1. Shapes of s, p, d orbitals<br>2. Moeller diagram |
| Day - 26<br>Chap - 8 | 4. Electronic configuration of first 20 clements<br>5. Huuds Rule, Afbau principle, paulis exclusion pronciple<br>6. Orbit, orbital<br>7. Absorption specture, emission spectrion | 3. Electronic configuration of first 20 elements<br>4. Hunds rule, Afban principle, paulis exclusion principle<br>5. Four quantum numbers<br>6. nlx method |
| Day - 27<br>Chap - 8 | Text book questions, BITS | BITS |
| Day - 28<br>Chap - 9 | 1. Draw the periodic table - 1,2, 13, 14, 15, 16, 18 group elements in the table<br>2. Salicut features of modern periodic table<br>3. Dobernier triads, New lands theory of octaves | 1. Dabenicer triads<br>2. Features of Modern penodic table |
| Day - 29<br>Chap - 9 | 4. Properties of atoms in periods and groups<br>- Atormic radius<br>- Ionsisation energy<br>- Electro negativity<br>- Election Affinity<br>- Electro positivity<br>- Metallic chanatr | 3. Properties of atrms in perids and groups<br>- Atomic radicy<br>- Ionisation energy<br>- Electron Affinity<br>- Electro negativity |
| Day - 30<br>Chap - 9 | 5. Practice all the questions given in text book - BITS | BITS |
| Day - 31<br>Day - 32<br>Day 33 | Revision of chapters from 6 to 9 | Revision of chapters from 6 to 9 |
| Day - 34<br>Chap - 10 | 1. Lewis dot structures of atoms<br>2. Electronic theory of values by lews and kossel with examples | 1. Lews dot structure, - formation of Nacl, Cao<br>2. What is odet rule ? How do you appreciate this in explaining chemical properties of elemants |

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| Day - 35<br>Chap - 10 | 3. Formation of covalent using hewis dot structure for the following nolecules F2, O2, N2, CH4, NH3, H2O<br>4. VSEPRT theory for th above molecules<br>5. Formetion of --- (sigma) and ---(pi) bonds in the molecules O2 and N2 | 3. Explain the formation of N2 moleeale using valence bond theory<br>4. Explain the formation of O2 moleeale using valence bond theory |
| Day - 36<br>Chap - 10 | 6. Hybridisation - Deficintion<br>7. Explain the formation of Becl2, BF3 using hybridization | 5. Explain the formation of Becl2 and BF3 molecules using hybridisation |
| Day - 37<br>Chap - | BITS | BITS |
| Day - 38<br>Chap - 11 | 1. Electric charge, electric currect, potentid difference, drift speed, enof, - Definitions, units, - formulace<br>2. Ohm's law - experiment<br>3. Ohrmic, nonohrmic conductory | 1. Ohrn's law - experiment |
| Day - 39<br>Chap - 11 | 1. Electrice shock - explanation<br>2. Factors affecting the resistance of a conductor-<br>- Nature of material<br>- Temparature<br>- Length<br>- Area of crosetion<br>7. Specific Resistance defrition | 2. Electric shock - explantion<br>3. Resistance sclies annation |
| Day - 40<br>Chap - 11 | 8. Service connection of resistances - effective resistance<br>9. Parallal connection of resistances - Resoltant | 4. Parallel connection of resistances effective resistances |
| Day - 41<br>Chap - 11 | 10. Kirchoff's laws<br>11. Electric power, - P =<br>12. Overlawcl - importance of fuse | 5. Over load - explanation<br>6. Appreciation of role of fuse<br>7. BITS |
| Day - 42<br>Chap - 12 | 1. Magnetic field - Magnetic lines of force - Magnetic flux - Magnetic flux density - Definitions<br>2. Magnetic filed due to straight wire carrying correct - experiment<br>3. Magnetic field due to circular coil | 1. Magnetic field due to straight wire carrying current - experment<br>2. Magnetic field due to circular coil |
| Day - 43<br>Chap - 12 | 4. Magnetic field due to solenoid<br>5. What happens when a currct carrying wire is placed in a magnetic field | 3. Magnetic field due to solenoid |
| Day - 44<br>Chap - 12 | 6. Electric motor - priciple and working<br>7. Electric motor - diagram | 9. Electric motor diagram |
| Day - 45<br>Chap - 12 | 8. Faraday's law of cleeromagnetic inductior<br>9. Snell's law<br>10. Electric generator A.C. principle, working | 5. Electric generators A.C. diagram |
| Day - 46<br>Chap - 12 | 11. Electric generator D.C/A.C. diagrams<br>12. BITS | 6. Electric generator D.C. diagram<br>7. BITS |

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| Day - 47<br>Chap - 13 | 1. Some important metals, their minerals and ores.<br>2. Concentration/dressing of are - Froath fhatution<br>- Magnetic Separation (diagrams also)<br>3. Extraction of metals of - more reactive metals<br>- moderate reactive metals - low reactive metals | 1. Froath flaatation Magnetic separation diagrams |
| Day - 48<br>Chap - 13 | 4. Reduction of ones by more reactive metals - thermite process<br>5. Furification of crude metals by - Dbtilletion<br>- Poting<br>- Liquation<br>- Electorlysis<br>6. Conditions/causes for correction - experiment | 2. Thermitc process - importance<br>3. Cossosion - causes for ocurence of corrosion experiment |
| Day - 49<br>Chap 13 | 7. Prercntin of cossossion<br>8. Blast furnace - diagrams<br>9. Reserboratary furnace diagrams | 4. Prevention of corresion<br>5. Reserboratary farnace - diagram |
| Day - 50<br>Chap - 13 | BITS | BITS |
| Day - 51<br>Chap - 14 | 1. Hybradisation in Carbon - sp, sp2 sp3<br>2. Allotropes of Carbon - diamond, graphite, Buckminister pullasince | 1. Diagrams of othytence |
| Day - 52<br>Chap - 14 | 3. Catenation<br>4. Nomenclature -<br>- Hydrocarbons<br>- Compounds with C,H,O<br>Compunds with C,H,X | 2. Substitction reactions |
| Day - 53<br>Chap - 14 | 5. Functional groups in Carbon compounds -<br>Alcohols<br>Aldehydes<br>Ketones<br>Carboxyti Acids<br>Ethers<br>Esters<br>Amines | 2. Esterification Reactions |
| Day - 54<br>Chap - 14 | 6. Momenclatare with examples and explanation | 3. Saponification reactions |
| Day - 55<br>Chap - 14 | 7. Cleaning action soap<br>8. Micelle | 4. Cleaning action of soap |
| Day - 56<br>Chap - 14 | BITS | BITS |
| Day - 57 | Revision of all diagrams | |
| Day - 58 | Revision of all appreciation questions | |
| Day - 59 | Revision of all laboratary Activities | |
| Day - 60 | Revision of BITS throughout the text book | |