

Major Kalshi Classes

TA Online Course

Syllabus Session 2020-2021

ENGLISH

Sr. No.	Chapter
1	Time & Tense
	Kinds of Tense
	Sequence of Tense
	Uses of Tense
2	Conditional Sentences
3	Question Tag
4	Verb
	Transformation
	Auxiliary
	Modals
	Reflexive
	Causative verbs
5	Finite & Non-finite Verbs
	Non finite
	Participle: Kinds of participle, Use of Participle
	Gerund: use of Gerund
	Infinitive: Use of Infinitive
6	Voice
	Transformation
	Uses
7	Narration
	Assertive
	Interrogative
	Imperative
	Optative
	Exclamatory
8	Noun
	Kinds of Noun
	Proper of Noun
	Common Noun
	Collective Noun
	Material
	Abstract
	Formation of Abstract Noun, Verb-Noun, Adjective Noun, Common Noun Abstract noun
	Noun Gender
	Noun Number
	Noun Case

9	Pronoun
	Kinds of Pronoun
	Use of Pronoun
10	Adjective
	Kinds of Adjective
	Adjectives order before noun
	Adjectives position
	Comparison of degree
	Uses of Adjective
11	Articles
	Kinds of Articles: Use of A/AN
	Use of The
12	Adverb
	Simple
	Interrogative
	Relative
	Position of Adverb
	Inversion
13	Preposition
	Kinds of preposition: Simple
	Compound
	Phrase Preposition
	Participle Preposition
	Relation Expressed by Preposition
	Words followed by preposition
	Correct use of Preposition
14	Conjunction
	Kinds of Conjunction: (a) Co-ordinating conjunction (b) Sub-ordinating conjunction
	Uses of Conjunction
15	Syntax (Subject Verb agreement)
16	Rearrangement of words in a sentence
17	Arrangement of sentences
18	Cloze Test/Fillers
19	Reading Comprehension
20	Idioms & Phrases
21	Synonyms
22	Antonyms
23	One word substitution
24	Spelling Error

ARITHMETIC

Sr. No.	Chapter
1	Number System
	Introduction
	Place value & face value, classification
	Rules of divisibility
	Division based question
	Addition of natural no. series
	Miscellaneous
2	Square Root & Cube Root
	Introduction
	Difference between Square & square roots
	To find, square & square roots
	Square roots, based question
	Cube & cube roots
	To find cube & cube roots
Cube & cube roots based question	
3	Simplification
	V-BODMAS-rule
	Fractions-based
	Factorization
	Miscellaneous
4	H.C.F. & L.C.M
	H.C.F.
	Definition, to find H.C.F. of various types of numbers
	H. C. F. based question
	L.C.M.
	Definition, to find L.C.M. of all types of numbers
	L. C. M. based questions
	Relation between L.C.M. & H.C.F.
5	Decimal Fraction
	Vulgar fraction
	Types
	Operations
	Comparisons (Increasing & decreasing order)
	Fractions based question
	Types terminating and non terminating
	Operations
6	Surds & Indices
	Introduction
	Basic rules of surds
	Surds based questions
	Basic rules of Indices
	Indices based questions
7	Percentage
	Basic concept & rules to find percentage
	Examination based Questions, increasing, decreasing
	Election based Questions
	Income expenditure & saving based questions
Vane-diagram based Questions	

	Population based question
	Menstruation based question
	Miscellaneous
8	Profit and Loss
	Introduction -what is profit and loss
	To find profit and loss
	To find S. P. and C. P. on profit and loss
	Successive profit % based Questions
	Successive loss %
	Discount
	Equivalent discount
	To find M. R. P.
9	Average
	Introduction of average
	How to find average
	Average of numbers
	Average of ages & weights etc
	Miscellaneous
10	Ratio & Proportion
11	Simple and Compound Interest
	Introduction
	Definition of interest
	Difference between SI & CI
	Rules to find S I & amount
	Rules to find C I & Amount
12	Time and Work
	Relation between workers, works and time
	Ratio based question
	Capacity based question
	Wages based question
	Pipe & cistern bases question
13	Speed, Time and Distance
	General concept and rule and how to find speed, distance and time
	Rules and question of general speed
	Train based question
	Boat and stream
	Average speed
14	Mensuration - I
	2D Unit-1st
	Triangle
	Quadrilaterals
	Circle
	Miscellaneous
15	Mensuration - II
	3D Unit-2nd
	Cuboids Cube
	Cylinder, Cone
	Sphere, Prism, pyramid, frustum
	Miscellaneous
16	Factor
	Rules of factorization
	Factorization based question
	Miscellaneous

17	Geometry
	Line and parallel lines
	Triangles
	Quadrilaterals
	Circles
	Tangent line
18	Trigonometry
	Measures of angles
	T. Ration
	Identities
	Sum & different of multiple of angles based question
	Height and distance
	Charts and tabulation
19	Allegation
20	Partnership
21	Algebra
22	Quadratic Equation and Inequalities
23	Statistics
24	Data Inerpretation
25	Permutation and Combination
26	Probability
27	Algorithm
28	Set theory

Reasoning	
Sr. No.	Chapter
1	Coding-Decoding
	Letter coding
	Direct letter coding
	Number/Symbol coding
	Deciphering message word codes/numeral codes
2	Substitution
	Arrangement of word according to dictionary
	Alpha-numeric sequence
	Letter-word problems
	Rule detection
3	English Alphabet
	Number Series
	To find a missing term
4	To find the number that does not follow the pattern
	Analogy
	Direct Simple analogy
	Completing the analogous pair
	Choosing the analogous pair
5	Choosing a similar word
	Classification
	Choosing the odd word
	Choosing the odd pair of words
	Choosing the odd letter group
6	Choosing the off number/pair of numbers
	Blood Relations
	Deciphering from jumbled-up descriptions
	Relation puzzles
7	Coded relations
	Direction and Distance
	Based on final direction
8	Based on displacement
	Sitting Arrangement
	Arrangement around a circle
9	Arrangement in a line or others
	Syllogism
	Two premise arguments
10	More than two premises arguments
	Cube and Dice
	Some facts about cube
	Counting the number of cubes/blocks in the given figures
	Dice
Dice formation	

	Types of dice
11	Clock and Calendar
12	Word Arrangement
	Arrangement around a circle
	Arrangement in a live or others
13	Number, Ranking and Time Sequence Test order sequence
	Number Test
	Ranking test
	Time sequence test
14	Mathematical Operations
15	Missing Term
16	Mathematical Reasoning
17	Venn Diagrams
	Universal Affirmative
	Universal Negative
	Particular
	Miscellaneous
	Venn Diagrams formed by using different geometrical figures
18	Series
	Rotation
	Design/Element
19	Figural Analogy
	Based on shape
	Based on structure
	Based on number
	Based on mirror image
	Based on water image
	Rotation of figure
	Movement of figure
Replacement of positions of element	
20	Figural Classification
	Choosing the odd Shape
	Choosing the odd pair of words
	Choosing the odd letter group
	Choosing the off number/pair of numbers
21	Figure Completion
22	Embedded Figures
23	Grouping of Identical figures
24	Paper Folding and Cutting
25	Mirror Image
	Letter/number images
	Geometrical images
26	Water Image
	Letter/number images
	Geometrical images
27	Formation of Figure
28	Counting figures

G.K.

Ancient History

1.	fl ðkq /kkVh I H; rk@ Indus Valley civilization
	ifjp; @ Introduction
	i æçk LFkykæ ds uke@ Name of main places.
	I kekft d] vkfFKd , oajktu srd thou@ Social Economic and political life.
2.	o snd dky@ Vedic Period
	on @ Veda
	mi on@ Upveda
	mi fu"kn@ Upanishada
	I kekft d] vkfFKd , oajktu srd thou@ Social Economic and Political Life
	mRrj o snd dky@ Later Vedic Period
3.	NBha 'knh bā k i 7@ 6 th Century B.C
	cð dk thou ifjp;] f'k{k o I æhfr@
	Introduction to the life of Bhuddha, Education and Sangiti
	egkohj Lokeh dk thou ifjp;] f'k{k o I æhfr@
	Introduction to Mahavir Swami, Education and Sangiti
4.	ekš ðky , oamRrj ekš l dky@ Maurya and Post Mourya period
	i æçk oāk o 'kkl d@ Main dynasty and Ruler
	ekš ðāk ds 'kkl d @ Rulers of Maurya dynasty
	płnæqr@ Chandra gupta
	fclnd kj@ Bindusar
	v'kkd@ Ashoka
	mRrj ekš ðky@ Post Maurya Period
	'kæoāk@ Shunga dynasty
	d.o oāk@ Kanv dynasty
	vkW/kz I krokgu@ Andhra Satvahan
5.	xqr oāk , oamRrj xqr oāk@ Gupta dynasty and post gupta dynasty
	i æçk 'kkl d@ Main Ruler
	Jhxqr@ Srigupta
	płnæqr i fke@ Chandragupta 1 st
	I eqæqr@ Samudragupta
	płnæqr IInd@ Chandragupta II nd
	dækj xqrk@ Kumargupta
	xqrkærdky@ Post gupta
	i ð; Hækr oāk@ Pushyabhuti dynasty kg"kb/kū@ Harshavardhana)
	dñ i æçk jkt oāk o muds I æFKi d@ Some main dynasties and their founder.
6.	e/; dkyhu bfrgkl @ Medieval History
	vjc vkØe.k@ Invasion of Arab
	egEen fcu dkfl e@ Mohammad Bin Kasim

	egem xtuoh@Mahmood Ghaznavi
	ekgfen xlgjh@Mohammad Ghorī
	fnYyh I Yrur@Delhi Sultanate
	ifjp; @Introduction
	ieqk oak@Main dynasty
	ieqk 'kkl d@Main Ruler
7.	eqy I kekT; @Mughal Empire
	,d ifjp; @An Introduction
	ieqk 'kkl d@Main Ruler
	I yjh oak@Suri dynasty
	mRrjorkI eqy 'kkl d@Later mughal emperor
8.	ejkBk , oafI D[k xq @Maratha and Sikkha Guru
	ejkBa dk , d ifjp; , oaf'kokth@An Introduction of Marathas and Shivaji
	fl D[k xq vka dsuke o dk; I@Name of Sikkha Gurus and their work
9.	vk/kfud bfrgkl @Modern History
	; ykjh; dEi fu; ka dk vkxeu@Arrival of European Companies
	i r'kkyh@Portuguese
	Mp@Dutch
	vaxt @British
	Ykd hl h@France
	Mfu'k@Denis
10.	18oha 'krknh dsu; s Lok; Rr jkT; @New Autonomous states 18 th Century
	caky@Bengal
	gnjkkn@Hyderabad
	eI j@Mysore
	Iykl h dk ; q @Battle of Plassey
	cDI j dk ; q @Battle of Buxar
11.	vkfkd i hko@Economic Impact
	/ku fu'dkl u fl)kr@Wealth Drain Theory
	LFk; h cksLR@Permanent Settlement
	jS; rokMh cksLR@Raiyyatwari Settlement
	egkyokMh cksLR@Mahalwari Settlement
12.	I kekftd vlg /kfed I qkj vknkyu@Social and Religious reform movement
	ifjp; @Introduction
	vk; I ekt@Aryasamaj
	i kfkuk I ekt@Prarthna Samaj
	cge I ekt@Brahmo samaj
	jked".k fe'ku@Ramkrishna Mission
13.	1857 bD dk fonkg o vU; fonkg@Revolt of 1857 A.D. and other revolts
	fonkg ds dkj .k@Causes of revolt
	I kekftd @Social
	vkfkd@Economic

	jktulfrd@Political
	dñ iæçk fontg ds dñz@Some main Centres of revolt
14.	vk/kud f'k{k dk iñ kj ,oaHkjr; I ekpj i=k dk bfrgkI @Expansion of modern education and history of Indian newspapers
15.	Hkjr; j'Vh; dkd vlj ml ds iæçk vf/košku rFk vU; I ðFku@Indian national congress and its major session and other Institution
16.	Hkjr; Lorark I ð'k@Indian Freedom Struggle
	caKy folktu@Partition of Bengal
	eQYe yhx@Muslim League
	dkd dk I jr vf/košku@I.N.C session of Surat
	y[kuÅ iDV@Lucknow Pact
	gk: y yhx vnkkyu@Home rule league movement
	jkSyV , DV@Rolatt Act
	tfy; kckx gr; kdk.M@Jaliawala bagh massacre
	f[kyQr vnkkyu@Khilafat Movement
	vl g; lx vnkkyu@Non-Co-operation Movement
	I kbeu deh'ku@Simon Commission
	xkyest I feyu@Round Table Conference
	I kñkf; d i pkV@Communal Award
	fQII fe'ku@Cripps Mission
	Hkjr NkMks vnkkyu@Quit India Movement
	ooy; kst uk@Wavell Plan
	dscuV fe'ku@Cabinet Mission
	yMZ ekm.V cVU ; kst uk o Lorark@Lord Mountbeten Plan and Independence
	dñ iæçk opu o ukj@Some Important Slogans
17.	xouj tujy@Governor General
18.	iæçk rF; @Main Fact

Polity

19	भारत का संवैधानिक विकास / Constitutional development of India
20	संविधान निर्माण / Making of the constitution
	देशी स्रोत / Indian Source
	विदेशी स्रोत / Foreign Source
21	प्रस्तावना / The Preamble
	संविधान की विशेषतायें / Properties of Constitution
22	संघ एवं उसकी सीमा / Union and its Territory
23	नागरिकता / Citizenship
24	मौलिक अधिकार / Fundamental Right
25	राज्य के नीति निदेशक तत्व / Directive Principle of state
26	मूलकर्तव्य / Fundamental Duties
27	संघीय प्रशासन / Union Administration
	<ul style="list-style-type: none"> • राष्ट्रपति / President • अधिकार एवं शक्ति / Rights and power • महाभियोग प्रक्रिया / Impeachment procedure • उपराष्ट्रपति / Vice-President

	<ul style="list-style-type: none"> राज्यसभा / Rajjya Sabha लोकसभा / Loksabha प्रधानमंत्री एवं मंत्रि परिषद / Prime Minister and Council of Ministers भारत के महान्यायवादी / Attorney General of India. वित्तआयोग / Finance Commission नीति आयोग / NITI Ayog निर्वाचन आयोग / Election Commission संघलोक सेवा आयोग / Union public Service Commission अंतर्राज्यीय परिषद / Inter State Council राष्ट्रीय विकास परिषद / National development Council केन्द्रीय सतर्कता आयोग / Central Vigilance Commission. राजभाषा / Official Language.
28	राज्य प्रशासन / State Administration <ul style="list-style-type: none"> राज्यपाल / Governor एवं उसकी शक्तियां / ans his powers राज्य विधायिका / State Legislature विधानसभा / Legislative Assembly of State मुख्यमंत्री एवं मंत्रिपरिषद / Chief Minister and its Council of Ministers
29.	केन्द्र राज्य संबंध / Central State Relation
30.	संवैधानिक एवं अन्य संस्थायें / Constitutional and other Institutions
31	स्थानीय प्रशासन / Local Administration
32	सर्वोच्च न्यायालय एवं उच्च न्यायालय / Supreme Court and High Court
33.	आपातकालीन उपबंध / Constitutional Amendment / Emergency Provisions
34	संविधान की अनुसूचियां एवं अनुच्छेद तथा अन्य तथ्य / Schedules and Articles of Constitution and others Facts

Geography	
35.	ब्रह्माण्ड एवं सौरमण्डल / Universe and Solar System ग्रह / Planet, उपग्रह / Satellite, उल्का पिण्ड / Meteorite, क्षुद्रग्रह / Asteroids, धूमकेतु / Comet चन्द्रमा / Moon, पृथ्वी / Earth
36.	पृथ्वी की गतियां / Motion and Revolution of Earth
37.	पृथ्वी की आंतरिक संरचना / Internal Structure of the Earth पृथ्वी की बाह्य संरचना / Outer structure of the Earth.
38.	शैल, पठार व मरुस्थल / Rocks, Plateau and desert – Igneous Rock/ आग्नेय शैल – Sedimentary Rock/ अवसादी शैल – Metamorphic Rock/ कार्यांतरित शैल
39.	महाद्वीप / Continents
40.	भूकम्प एवं ज्वालामुखी / Earthquake and Volcano
41.	जलमण्डल / Hydrosphere <ul style="list-style-type: none"> महासागर / Ocean सागर / Sea प्रमुख गर्त / Main Trench जल संधियाँ / Straits प्रमुख जलधारायें / Oceanic currents जलप्रपात / Waterfalls प्रमुख झीलें / Main Lakes प्रमुख नदियाँ / Main Rivers प्रमुख नहरें / Main Canals
42.	वायुमण्डल / Atmosphere

	<ul style="list-style-type: none"> • मण्डलों के नाम / Name of Spheres • वायुदाब पेटियाँ/ Wind pressure belts • स्थानीय पवनें/ Local winds • प्रमुख चक्रवात/ Main Cyclones • बादल के प्रकार/ Types of Clouds
43.	प्रमुख शहर व नदियों के किनारे बसे शहर तथा पवनें Main cities, Cities located on river banks and winds
44.	भारत का परिचय / Introduction of India
45.	प्रमुख दर्रे / Main Passes
46.	प्रमुख नदियाँ, बाँध, परियोजनायें तथा झीलें / Main Rivers, Dams, Projects and Lakes
47.	भारत की प्रमुख मिट्टियाँ / Main Soils of India
48.	भारतीय परिवहन / Indian Transport
49.	वन एवं राष्ट्रीय उद्यानों के नाम / Forest and National Parks
50.	प्रमुख खनिज / Main Minerals

Miscellaneous	
51	Economic
52	Abbreviation
53	Sports
54	Award and Prizes
55	Monument
56	Terminology (Geographical/ Astronomical Term etc)
57	UNO
58	Indian Armed forces
59	States and its UT
60	Research centre and space programme
61	News agencies
62	Invention & Discoveries
63	Continently
64	National/ International Days
65	Nation & International Organisation
66	Books & Author
67	World planets & animals
68	Religion & Communities
69	Who's who
70	Dance & Festival
71	Current Affairs
72	Computer
73	Miscellaneous

General Science (PHYSICS)

Sr. No.	Chapter			
1	Physical World and Measurement			
	1	What is physics?	7	Measurement of time
	2	Fundamental forces in nature	8	Accuracy, precision of instruments and errors in measurement
	3	Nature of Physical laws	9	Significant figures
	4	The international system of units	10	Dimensions of physical quantities
	5	Measurement of length	11	Dimensional formulae and dimensional equations
	6	Measurement of mass	12	Dimensional analysis and its applications
2	Uniform Motion			
	1	Position, path length and displacement	5	Kinematic equations for uniformly accelerated motion
	2	Average velocity and average speed	6	Relative velocity
	3	Instantaneous velocity and speed	7	Projectile motion
	4	Acceleration		
3	Law of Motion			
	1	The law of inertia	5	Conservation of momentum
	2	Newton's first law of motion	6	Equilibrium of a particle
	3	Newton's second law of motion	7	Common forces in mechanics
	4	Newton's third law of motion	8	Circular motion
4	Work, Energy and Power			
	1	Notions of work and kinetic energy : The work-energy theorem	7	The conservation of mechanical energy
	2	Work	8	The potential energy of a spring
	3	Kinetic energy	9	Various forms of energy : The law of conservation of energy
	4	Work done by a variable force	10	Power
	5	The work energy theorem for a variable force	11	Collisions
	6	The concept of potential energy		
5	Centre of Mass and Rotational Mechanics			
	1	Centre of mass	6	Equilibrium of a rigid body
	2	Motion of centre of mass	7	Moment of inertia
	3	Linear momentum of a system of particles	8	Theorems of perpendicular and parallel axes
	4	Angular velocity and its relation with linear velocity	9	Rolling motion
	5	Torque and angular momentum		
6	Gravitation			
	1	Kepler's Law	7	Escape speed
	2	Universal law of gravitation	8	Earth satellite
	3	The gravitational constant	9	Energy of an orbiting satellite
	4	Acceleration due to gravity of the earth	10	Geostationary and polar satellites
	5	Acceleration due to gravity below and above the surface of earth	11	Weightlessness
	6	Gravitational potential energy		
7	Properties of Matter			
	1	Elastic behaviour of solids	12	Surface tension
	2	Stress and strain	13	Temperature and heat
	3	Hooke's law	14	Measurement of temperature
	4	Stress-strain curve	15	Ideal-gas equation and absolute temperature

	5	Elastic moduli	16	Thermal expansion
	6	Applications of elastic behaviour of materials	17	Specific heat capacity
	7	Pressure	18	Calorimetry
	8	Streamline flow	19	Change of state
	9	Bernoulli's principle	20	Heat transfer
	10	Viscosity	21	Newton's law of cooling
	11	Reynolds number		
8	Thermo-Dynamics			
	1	Thermal equilibrium	7	Thermodynamic processes
	2	Zeroth law of thermodynamics	8	Heat engines
	3	Heat, internal energy and work	9	Refrigerators and heat pumps
	4	First law of thermodynamics	10	Second law of thermodynamics
	5	Specific heat capacity	11	Reversible and irreversible processes
	6	Thermodynamic state variables and equation of state	12	Carnot engine
9	Kinetic Theory of Gas			
	1	Molecular nature of matter	4	Law of equipartition of energy
	2	Behaviour of gases	5	Specific heat capacity
	3	Kinetic theory of an ideal gas	6	Mean free path
10	Electrostatics			
	1	Electric charges	16	Potential due to a Point Charge
	2	Conductors and Insulators	17	Potential due to an Electric Dipole
	3	Charging by Induction	18	Potential due to a System of Charges
	4	Basic properties of electric charge	19	Equipotential Surfaces
	5	Coulomb's law	20	Potential Energy of a System of Charges
	6	Forces between Multiple charges	21	Potential Energy in an External Field
	7	Electric field	22	Electrostatics of Conductors
	8	Electric field lines	23	Dielectrics and Polarisation
	9	Electric Flux	24	Capacitors and Capacitance
	10	Electric Dipole	25	The Parallel plate capacitor
	11	Dipole in a uniform external field	26	Effect of Dielectric on Capacitance
	12	Continuous Charge Distribution	27	Combination of Capacitors
	13	Gauss's Law	28	Energy Stored in a Capacitor
	14	Application of Gauss's Law	29	Van de Graaff Generator
	15	Electrostatics Potential		
11	Electric Current and Resistance			
	1	Electric Current	9	Combination of Resistors- Series and Parallel
	2	Electric Currents in Conductors	10	Cells, emf, Internal Resistance
	3	Ohm's Law	11	Cells in Series and in Parallel
	4	Drift of Electrons and the Origin of Resistivity	12	Kirchhoff's Law
	5	Limitations of Ohm's Law	13	Wheatstone Bridge
	6	Resistivity of various Materials	14	Meter Bridge
	7	Temperature Dependence of Resistivity	15	Potentiometer
	8	Electrical Energy, Power		
12	Magnetic Field Due to Electric Current			
	1	Magnetic Force	6	Ampere's Circuital Law
	2	Motion in a Magnetic Field	7	The Solenoid and the Toroid
	3	Motion in Combined Electric and Magnetic Fields	8	Force between two parallel currents, the Ampere
	4	Magnetic Field due to a current element, Biot-Savart Law	9	Torque on Current Loop, Magnetic Dipole

	5	Magnetic Field on the Axis of a Circular Current Loop	10	The Moving Coil Galvanometer
13	Magnets and Earth's Magnetism			
	1	Introduction	5	Magnetisation and Magnetic Intensity
	2	The Bar Magnet	6	Magnetic Properties of Materials
	3	Magnetism and Gauss's Law	7	Permanent Magnets and Electromagnets
	4	The Earth's magnetism		
14	Electromagnetic Induction and Alternating Current			
	1	The Experiments of Faraday and Henry	10	AC Voltage Applied to a Resistor
	2	Magnetic Flux	11	Representation of AC Current and Voltage by Rotating Vectors- Phasors
	3	Faraday's Law of Induction	12	AC Voltage applied to an Inductor
	4	Lenz's Law and Conservation of Energy	13	AC voltage applied to a capacitor
	5	Motional electromotive Force	14	AC Voltage applied to a series LCR circuit
	6	Energy Consideration: A Quantitative Study	15	Power in AC Circuit: The Power Factor
	7	Eddy Currents	16	LC Oscillations
	8	Inductance	17	Transformers
	9	AC Generator		
15	Electromagnetic Waves			
	1	Introduction	3	Electromagnetic Current
	2	Displacement Current	4	Electromagnetic Spectrum
16	Waves Optics and Ray Optics			
	1	Reflection of Light by Spherical Mirrors	7	Some Natural Phenomena due to Sunlight
	2	Refraction	8	Optical Instruments
	3	Total Internal Reflection	9	Huygens Principle
	4	Refraction at Spherical Surfaces and by Lenses	10	Refraction & Reflection of plane waves using Huygens Principle
	5	Refraction through a Prism	11	Coherent and Incoherent Addition of Waves
	6	Dispersion by a Prism	12	Interference of Light Waves & Young's Experiment
17	Diffraction and Polarisation			
		Diffraction		
		Polarisation		
18	Dual Nature of Matter and Radiation			
	1	Introduction	6	Einstein's Photoelectric equation: Energy Quantum of Radiation
	2	Electron Emission	7	Particle Nature of Light: The Photon
	3	Photoelectric Effect	8	Wave Nature of Matter
	4	Experimental Study of Photoelectric Effect	9	Davisson and Germer Experiment
	5	Photoelectric Effect & Wave Theory of Light		
19	Atoms			
	1	Alpha-particle Scattering & Rutherford's Nuclear Model of Atom	4	The Line spectra of the Hydrogen Atom
	2	Atomic Spectra	5	DE Broglie's Explanation of Bohr's Second Postulate of Quantisation
	3	Bohr Model of the Hydrogen Atom		
20	Conductors, Insulator and Semiconductor			
	1	Classification of Metals, conductors & Semiconductors	5	Semiconductor diode
	2	Intrinsic Semiconductor	6	Application of Junction Diode as a Rectifier
	3	Extrinsic Semiconductor	7	Digital Electronics and Logic Gates
	4	p-n Junction	8	Integrated Circuits

CHEMISTRY

1. Some Basic concept of chemistry, mole concept. Nature of metal, non metal. Metalized salt.
2. **Atomic structure**
 - Classical** - Discovery of e^- , p^+ , n^0
Discovery of nucleus
Bohr's, Bury electronic.
Atomic model
Rutherford, Bohr's, Sommerfeld
 - Modern** - De-Broglie Principle
Heisenberg Principle
Quantum Number.
Pauli's, Hund's, Aufbau's
3. **Radio Activity** - α, β, γ , rays
 - Soddy Fajans Russell (Group Displacement Law)
 - Half life disintegration constant
4. **Acid Base salt** - Type of acid, base and salt
5. **Periodic Table** -
 1. Classification
 2. Periodic properties
6. **Chemical Bonding** - Valency & type of Bonding
Lewis dot structure
7. **Oxidation and Reduction** -
 1. Oxidation Number.
 2. Ion Electron Method
 3. Electrode Potential
8. **Carbon & It's comp** -
 1. Allotrope
 2. Hydrocarbons
 3. Isomerism
9. **Glass & Cement** - Method & Properties
10. **Chemistry everyday life** - Medicine & Detergents

Biology

1. **Structural organization of cell.**
 - CELL ORGANELS**
 - Discovery of Cell
 - Cell Theory
 - Difference between prokaryotic cell and Eucaryotic cell
 - Endoplasmic Reticulum (ER)
 - Golgi apparatus
 - Lysosome etc.
 - Nucleus – chromosome
2. **Balance Diet :**
Carbohydrate, fat protein, minerals vitamin water.
3. **Vascular System : Blood, Blood corpusel.**
Plasma : Difference between Lymph and Blood.
Blood groupings : Antibodies, Human Heart and its function
4. **Endocrine System.**
All Glands(Pituitary Gland, Oxytocin. Thyroid Gland, Parathyroid Glands, Thymus Gland , Pancreas, Adrenal Glands, Gonods, Testes, Ovary
5. **Reproductive Systems**
 - Types of reproduction
 - Secondry sex organ
 - Menustrual cycle.
 - Estrous cycle.

- Amniocentesis
- 6. **Nervous System**
 - C.N.S.
 - P.N.S. → Cranial Nerve → Spinal Nerve
 - Sensory Organ
 - Ear
- 7. **Excretory System**
 - Nitrogenous waste Products.
 - Excretory System of mammals
- 8. **Respiratory System**
 - Types of Respiration
 - Respiratory organ
 - Structure of Lungs
- 9. **Skeleton System.**
 - Exoskeleton
 - Endoskeleton (Human)
 - Joints
 - Muscular System
- 10. **Human Disease.**

Bacterial Diseases.	Protozoan Disease.
Viral Disease.	<u>Helminthic Disease</u>
Fungal Disease	