

Baridhara Scholars' International School and College (BSISC)

Monthly academic study plane - 2020

Std: XIA [International Advanced Subsidiary (IAS)]

Sub: Pure Mathematics 1(P1)

Book: 1. Pure Mathematics 1(student book)

Writer: Greg Attwood, Alistair Macpherson, Bronwen Moran, Jeo Petran, Keith Pledger, Geoff Staley

2. A level Mathematics Chapterwise Question Paper.

1st term (01 January to 23 June) 2020

| Month | Number of Classes | Topics |
|----------|-------------------|--|
| February | 08 | Chapter 1: Algebraic Expressions, Pg-(1-17) Chapter 2: Quadratics, Pg (1-33) & Question Paper solving related to the chapter |
| March | 10 | Chapter 3 : Equations and Inequalities, Page (33 - 54) Chapter 4 : Graphs and Transformations, Pg(58-65) & Question Paper solving related to the chapter |
| April | 10 | Chapter 4 : Graphs and Transformations, Pg (65-78) Chapter 5 : Straight line graphs (51 - 72) Chapter 6 : Trigonometric ratios, Page (104 - 119) & Question Paper solving related to the chapter |
| May | 02 | Chapter 6 : Trigonometric ratios, Page (120 - 129) & Question Paper solving related to the chapter |

2nd term (13 July to 16 November) 2020

| Month | Number of Classes | Chapter |
|-----------|----------------------|--|
| July | 06 | Chapter 7 : Radians, Pg (133 - 145) & Question Paper solving related to the chapter |
| August | 06 | Chapter 8 : Differentiation, Pg (150 - 167) & Question Paper solving related to the chapter |
| September | 10 | Chapter 8 : Integration Pg (170 - 178) |
| October | 16 | Overall revision, yearwise QP solving |
| November | 12 | Qualifying test and |
| December | | Mock test |

Note: Question pattern and distribution of marks according to IAS and IAL pattern

Baridhara Scholars' International School and College (BSISC)

Monthly academic study plane - 2020

Std: XIA [International Advanced Subsidiary (IAS)]

Sub: Pure Mathematics 2(P2)

Book: 1. Pure Mathematics 2(student book)

Writer: Greg Attwood, Alistair Macpherson, Bronwen Moran, Jeo Petran, Keith Pledger, Geoff Staley

2. A level Mathematics Chapterwise Question Paper.

1st term (01 January to 23 June) 2020

| Month | Number of Classes | Topics |
|----------|-------------------|---|
| February | 08 | Chapter 1 : Algebraic Methods, Pg-(1-21) Chapter 2 : Coordinate Geometry in (x-y) plane, Pg(25-44) & Question Paper solving related to the chapter |
| March | 10 | Chapter 3 : Exponentials and Logarithms, Page (49 - 60) Chapter 4 : The Binomial Expansion, Pg (62 - 67) & Question Paper solving related to the chapter |
| April | 10 | Chapter 4 : The Binomial Expansion, Pg (67 - 77) Chapter 5 : Sequences and Series (80 - 107) Chapter 6 : Trigonometric Identities and Equations, Page (112 - 133) & Question Paper solving related to the chapter |
| May | 02 | Chapter 6 : Trigonometric Identities and Equations, Page (125 - 133) & Question Paper solving related to the chapter |

2nd term (13 July to 16 November) 2020

| Month | Number of Classes | Chapter |
|-----------|----------------------|--|
| July | 06 | Chapter 7 : Differentiation, Pg (137 - 148) & Question Paper solving related to the chapter |
| August | 06 | Chapter 8 : Integration, Pg (152 - 170) & Question Paper solving related to the chapter |
| September | 10 | Chapter 8 : Integration |
| October | 16 | Overall revision, yearwise QP solving |
| November | 12 | Qualifying test and |
| December | | Mock test |

Note: Question pattern and distribution of marks according to IAS and IAL pattern

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std: XI A (IAL)

Subject : Mechanics 1

Books: Pearson Edexcel International A Level Mechanics 1 Student Book

1st term (01 January to 23 June) 2020

| Month | Number of Classes | Chapters/Topics |
|--|-------------------|--|
| February | 14 | Chapter 1 : Mathematical Models in Mechanics Chapter 2 : Constant Acceleration Related Problem from Review Exercise - 1 |
| March | 15 | Chapter 3 : Vectors in Mechanics Chapter 4 : Dynamics of A Particle Moving in A Straight Line Related Problem from Review Exercise - 1 |
| April | 17 | Chapter 5 : Forces and Friction Related Problem from Review Exercise - 2 |
| May | 2 | Revision & Question Paper Solution |
| June | 5 | Revision & Question Paper Solution |
| 2 nd term (13 July to 16 November 2020) | | |
| July | 10 | Chapter 6 : Momentum and Impulse Related Problem from Review Exercise - 2 |
| August | 13 | Chapter 7 : Statics of a Particle Related Problem from Review Exercise - 2 |
| September | 18 | Chapter 8 : Moments Related Problem from Review Exercise - 2 Revision & Question Paper Solution |

Note: Question pattern and distribution of marks according to IAS and IAL pattern

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std. XI (International)

Subject: Physics

Book: Pearson Edexcel International AS/A LEVEL , Physics

Students Book 1 (Miles Hudson)

1st term (01 January to 23 June) 2020

| Month | Number of Classes | Chapter/Topics |
|----------|-------------------|--|
| February | 15 | Working as a physicist 1- Standard units in physics 2- Estimation Topic -1 (Mechanics), 1A Motion 1 - velocity and acceleration Unit2 : Topic 3 (Wave and particle Nature of light) 3A Basic waves 1. Wave basics 2. Wave types 3B- (Behaviour of waves) 1. Wave phase and superposition Solving Past paper Questions related to the chapters |
| March | 16 | Topic -1 (Mechanics), 1A 1A Motion 1 - Velocity and acceleration 2 - Motion graphs 3 - adding forces 4 - Moments Unit 2 : 3B 2. Stationary waves 3. Diffraction 4. Wave interference Solving Past paper Questions related to the chapters |
| April | 14 | Topic -1 (Mechanics), 1A 1A Motion 1 - Newton's law of motion 2 - Kinematics equation 3 - Resolving vectors 4 - Projectiles |

| | | |
|------|----|--|
| | | Unit 23C(More wave properties of light) 1.Refraction 2.Total internal reflection Solving Past paper Questions related to the chapters |
| May | 10 | Topic -1 (Mechanics), 1B Energy 1 - gravitational potential and kinetic energies 2 - work and power Topic - 1 (Mechanics), 1C Energy 1 - Momentum 2 - conservation of linear momentum Unit 2 3C 3. Polarisation 3D (Quantum Physics) 1. Wave-particle duality 2. The photoelectric effect. Unit 2 3D 3. Electron diffraction and interference 4. Atomic electron energies Solving Past paper Questions related to the chapters |
| June | 01 | Revision |

2nd term (13 July to 16 November) 2020

| Month | Number of Classes | Chapter/Topics |
|-----------|-------------------|--|
| July | 10 | Unit 2 : Topic 4 (Electric circuits) 4A (Electrical quantities) 1. Electric current 2. Electrical energy transfer 3. Current and voltage relationships 4. Resistivity 5. Conduction and resistance 6. Semiconductors Topic- 2 (Materials), 2A Fluids 1 - Fluids, density and up thrust 2 - fluid movement 3 - viscosity 4 - thermal velocity Solving Past paper Questions related to the chapters |
| August | 16 | Topic - 2 (Materials), 2A Fluids 1 - Hooke's law 2 - Stress, strain and the young modulus 3 - Stress-strain graph Unit 2 : 4 B (complete electrical circuits) 1. Series and Parallel circuits 2. Electrical circuits rules 3. Potential dividers 4. EMF and internal resistance 5. Power in electric circuits Solving Past paper Questions (Jan 2015 June 2019) |
| September | 12 | Qualifying Test Unit 1, Unit 2 & Unit 3 Solving Past paper Questions (Jan 2009 June 2014) |
| October | 14 | Mock Test |
| November | 10 | Mock Test |

Question Pattern & marks Distribution :

First Half Yearly Exam : Unit 1 + Unit 2 + Unit 3 = 80+80+50 = 210

First Half Yearly Exam Total converted into = 75

CT = 25

Total = 100

Second Half Yearly Exam - 3 Mock exams covering all the chapters of IAS

Syllabus.

Type of Question - There will be three units in Physics The question

pattern will be as per IAS

specification.

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std: XIA (International)

Subject: Chemistry

Book: Edexcel AS Chemistry

1st term (01 January to 23 June) 2020

| Month | Number of Classes | Chapter/Topics |
|----------|-------------------|---|
| February | 16 | Unit 1 : Chapter 1 - Formulae, equations and amounts of substance Chapter 2 - Atomic structure and the periodic table Unit 2 : Topic 6 - Energetics, topic 7: Intermolecular Forces Unit 3 : Core Practical 2, 3 Unit 1 , Unit 2 & Unit 3 Solving Past paper Questions related to the chapters |
| March | 14 | Unit 1 : Chapter 3 - Bonding and Structure Chapter 4 - Introductory organic chemistry and alkanes Unit 2 : Topic 8 - Redox Chemistry and Groups 1,2,7 Topic 9- Introduction to kinetics and Equilibria Unit 1 , Unit 2 & Unit 3 Solving Past Paper Questions related to the chapters |
| April | 12 | Unit 1 : Chapter 5 - Alkenes Unit 2 : Topic 9 - Introduction to kinetics and Equilibria Topic 10 - Organic Chemistry: Halogen, Alkanes, Alcohols and Spectra Unit 3 : Core Practical 4 Unit 1, Unit 2 & Unit 3 Solving Past paper Questions related to the chapters |
| May | 1 | Unit 1, Unit 2 & Unit 3 Solving Past paper Questions |
| June | 14 | Revision |

2nd term (13 July to 16 November) 2020

| Month | Number of Classes | Chapter/Topic |
|-----------|-------------------|---|
| July | 08 | Unit 2 : Topic 9 - Introduction to Kinetics and Equilibria Unit 1, Unit 2 & Unit 3 Solving Past paper Questions (June 2019-Jan -2018) |
| August | 12 | Unit 2 : Topic 10 - Organic Chemistry: Halogenoalkanes, Alcohols and Spectra Unit 3 : Core Practical 5,6,7,8 Unit 1, Unit 2 & Unit 3 Solving Past Paper Questions (Jan 2014-June 2017) |
| September | 12 | Qualifying Test Unit 1, Unit 2 & Unit 3 Solving Past paper Questions (Jan 2009-June 2013) |
| October | 10 | Mock Test |
| November | 09 | Mock Test |

Question Pattern & Marks Distribution :

1st Term Exam: Unit 1 + Unit 2 + Unit 3 = 80+80+50 = 210

1st Term Exam Total converted into = 100

2nd Term Exam - 3 Mock exams covering the three IASunits (Units1, 2 and 3) content.

Type of Question - There will be three units in IAS Chemistry. The question pattern will be as per IASspecification.

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Level : International Advance Level (IAL)

CLASS: XIA

SUBJECT : Biology Unit 1,2 and 3

Book : Edexcel AS Biology student's

First Half Yearly (1st January to 23 June) 2020

| Month | Number of Classes | Chapter/Topic |
|----------|----------------------|---|
| January | 6 | Topic 1, Molecules, Transport and Health. Chemistry for Biologists. The Chemistry of life. Carbohydrates Mono and Polysaccharide |
| February | 6 | Topic 2 Molecules, Transport and Health. Lipid and Proteins Mammalian transpor system. Principles of circulation. The roles of the blood. |
| March | 8 | Topic 3. Membrane, proteins, DNA and Gene expression, Molecules, Transport and Health. Circulation of the blood vessel. Cardiovascular health and risk The benefit and risks of treatment. |
| April | 8 | Topic 4. Membrane, proteins, DNA and Gene expression. Cell membrane, Cell transpor and diffusion |
| | | A specaial case of diffusion |
| May | 1 | Topic 2. Membrane, proteins, DNA and Gene expression. Proteins and DNA, Gene expression and genetics. |

Second Half Yearly (13 July-16 November) 2020

| Month | Number of Classes | Chapters |
|-----------|----------------------|--|
| June | 2 | Topic 2 - Cell structure, Reproduction and development. Active transport Osmosis, Eukaryotic cells 1 & 2 |
| July | 7 | Topic 3 Cell structure, Reproduction and development. Protein transport in cells Asexual reproduction and natural cloning Growth |
| August | 9 | Topic 4 Plant structure and function, Biodiversity and conservation. Plant pharmacies Modern drug development Developing new drugs. |
| September | 8 | 1 st Mock test |
| October | 10 | 2 nd Mock test |
| November | 9 | 3 rd Mock test |

Question Pattern & Marks Distribution:

First Half Yearly Exam: Unit 1 + Unit 2 + Unit 3 = 80+80+50 = 210

First Half Yearly Exam Total converted into = 75

CT = 25

Total = 100

Second Half Yearly Exam - 3 Mock exams covering all the chapters of IAS syllabus.

Type of Question - There will be three units in Biology. The question pattern will be as per IAS specification.

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Class: XI AS (International)

Subject : Psychology

Book : Edexcel AS/A level Psychology Pearson

1st term exam : (1 February - 14 July) 2020

| Month | Number of Classes | Chapter/Topic |
|----------|-------------------|---|
| February | 10 | Social Psychology: Obedience (Theories of obedience, Research into obedience, factors affecting obedience and resistance to obedience including individual differences eg- personality, gender, situation, culture.) |
| March | 11 | Prejudice-Explanation and research into prejudice, factors affecting prejudice, Social identity theory, realistic conflict theory. Individual differences in obedience /prejudice Developmental psychology in obedience/prejudice |
| April | 11 | Methods : Self reporting data (Designing & conducting questionnaires, interviews- unstructured semi-structured and unstructured interviews, open & close questions) Sample selection and techniques Analysis of quantitative data (central tendency, frequency tables, graphical presentation, measures of dispersion) Analysis of qualitative data using thematic analysis |
| May | 00 | |
| June | 06 | Ethical guidelines : BPS code of ethics and conduct including risk management. Different Classic studies |

2nd term (13 July to 16 November) 2020

| | | |
|-----------|----|---|
| July | 15 | <u>Cognitive Psychology:</u> Memory (the working memory model, the multi store model of memory), Explanation of long term memory- episodic and semantic memory, Reconstructive memory including schema theory, Individual differences in memory, Developmental psychology in memory. <u>Experimental methods:</u> -Design and conducting experiments, independent and dependent variables, experimental & null hypothesis, one tailed & two tailed tests and hypothesis Experimental & research designs -Operationalisation of variables, extraneous variables |
| August | 08 | <u>Experimental methods:</u> -Counterbalancing, randomization & order effect - Situational & participant variables - objectivity, reliability & validity - Experimental effects, demand characteristics & control issues. <u>Quantitative data analysis:</u> -Analysis of quantitative data : calculate measures of central tendency, frequency tables, measures of dispersion (range and standard deviation), percentages. -Graphical presentation of data (bar graph, histogram) -Decision making and interpretation of inferential |
| | | Statistics -Case study of brain-damaged patients, including Henry Molaison (HM) |
| September | 13 | -Different classic studies -Practical Investigation : One Practical research exercise to gather data relevant to topics covered in cognitive psychology. -Overall revision, year wise QP solving, Qualifying test and Mock test |
| October | 10 | |
| November | 13 | |

Note: Question pattern and mark distribution as per Edexcel question paper and marks distribution.

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std: XI A (IAL)

Subject: Business Studies

Books : Pearson Edexcel International A Level Business 1 Student Book

1st term (1st January to 23 June)2020

Unit 1 : Marketing and People

| Month | Number of Classes | Chapter/Topic |
|--|-------------------|--|
| February | 11 | Chapter 1-3 : Meeting Customer Needs Chapter 4-8 : The Market Related Problem from Review Exercise -1 |
| March | 14 | Chapter 9-13 : Marketing Mix and Strategy Chapter 14 : Approaches to Staffing Chapter 15 : Recruitment, Selection and Training Related Problem from Review Exercise-1 |
| April | 14 | Chapter 16-18 : Managing People Chapter : 19-22 : Entrepreneurs and Leaders Related Problem from Review Exercise -2 |
| May | 2 | Revision & Question Paper Solution |
| June | 4 | Revision & Question Paper Solution |
| 2nd term (13 July to 16 November)2020 Unit 2 : Managing Business Activities | | |
| July | 8 | Chapter 23-28 : Planning a Business and Raising Finance Related Problem from Review Exercise-2 |
| August | 11 | Chapter 29-33 : Financial Planning Chapter 34-36 : Managing Finance Related Problem from Review Exercise - 2 |
| September | 16 | Chapter 37-40 : Resource Mangement Chapter 41-43 : External Influences Related Problem from Review Exercise-2 Revision & Question Paper Solution |

Note : Question pattern and distribution of marks according to IAS and IAL Pattern.

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std: XI A (IAL)

Subject : Economics

Books: Pearson Edexcel International AS/A Level Economics Student Book-1

Author: Alan Hewison & Tracey Joad

1st term (1st January to 23 June)2020

| Month | Number of Classes | Chapter/Topic |
|----------|-------------------|--|
| February | 8 | UNIT 1 : MAKETS IN ACTION Introductory Concepts Chapter : 1 to 5 |
| March | 12 | UNIT 1 : MAKETS IN ACTION Consumer Behavior and Demand Chapter : 6 to 9 Supply Chapter : 10 UNIT 2 : MACROECONOMICS PERFORMANCE AND POLICY Measures of Economic Performance Chapter : 21 to 26 |
| April | 12 | UNIT 1 : MAKETS IN ACTION Price Determination Chapter : 11 to 13 UNIT 2 : MACROECONOMICS PERFORMANCE AND POLICY Aggregate Demand Chapter : 27 to 30 Aggregate Supply Chapter : 31 |
| May | 2 | Revision & Related Question Paper Solution |
| June | 3 | Revision & Related Question Paper Solution |

2nd term (13 July to 16 November)2020

| | | |
|-----------|----|--|
| July | 8 | UNIT 1 : MAKETS IN ACTION Market Failure Chapter : 14 to 18 UNIT 2 : MACROECONOMICS PERFORMANCE AND POLICY National Income Chapter : 32 to 34 |
| August | 10 | UNIT 1 : MAKETS IN ACTION Govt. Intervention in Markets Chapter : 19 to 20 UNIT 2 : MACROECONOMICS PERFORMANCE AND POLICY Economic Growth Chapter : 35 to 36 |
| September | 14 | UNIT 2 : MACROECONOMICS PERFORMANCE AND POLICY Macroeconomic Objectives and Policies Chapter : 37 to 40 Revision & Related Question Paper Solution |

Note: Question Pattern and distribution of marks according to IAS and IAL pattern.

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std: XI A [International Advanced Subsidiary (IAS)]

Sub: Information Technology (Unit 1)

2nd term (15 July to 17 December)2020

| Month | Number of Classes | Chapter |
|-----------|-------------------|--|
| July | 05 | Topical (a) : Hardware |
| August | 05 | Topical (b) : Software |
| September | 04 | Topic 2 : Network |
| October | (04+04) | Topic 3 : Online Error Ment Topic 4 : IT System |
| November | 04 | Topic 1,2,3,4 Revision |
| December | ---- | Exam |

Note: Question pattern and distribution of marks according to IAS and IAL pattern

Baridhara Scholars' International School and College (BSISC)

Monthly Academic Study Plan - 2020

Std: XI A [International Advanced Subsidiary (IAS)]

Sub: Information Technology (Unit 2)

2nd term (15 July to 17 December)2020

| Month | Number of Classes | Chapter |
|-----------|----------------------|--|
| July | 05 | Topic 7: Understanding the functionality of HTML |
| August | 05 | Topic 7: Understanding the functionalty of HTML Topic 8: Understanding the functionality of CSS |
| September | 04 | Topic 8: Understanding the functionality of CSS Topic 9 : Understanding the functions of Javascript |
| October | 08 | Topic 8: Understanding the functionalitiy of CSS Topic 9: Understandint the functions of JavaScript |
| November | 04 | Topic 9: Understanding the functions of JavaScript Revision |
| December | ----- | Exam |

Note: Question pattern and distribution of marks according to IAS and IAL pattern

