



## 2023 End-of-Year Examinations Topics List Secondary 3 Express

Secondary 3 EX Subjects	Topics / Chapters
English Language	<p>3 EXP</p> <p>Paper 1</p> <p>Sect A: Editing</p> <p>Sect B: Situational Writing</p> <p>Sect C: Essay Writing</p> <p>Paper 2</p> <p>Sect A: Visual Text</p> <p>Sect B: Literary Text</p> <p>Sect C: Informative Text</p> <p>Paper 3</p> <p>Listening Comprehension</p>
Elementary Mathematics	<p><b>Sec 1 and 2 Topics</b></p> <ol style="list-style-type: none"><li>1. Factors and Multiples</li><li>2. Approximation and Estimation</li><li>3. Ratio, Rate and Speed</li><li>4. Percentage</li><li>5. Number patterns</li><li>6. Perimeter and Area of Plane Figures</li><li>7. Volume and Surface area of solids</li><li>8. Algebraic manipulation</li><li>9. Expansion and Factorisation of Algebraic Expressions</li><li>10. Quadratic Fractions and Equations</li><li>11. Linear Equations in Two variables</li><li>12. Map Scale and Proportion</li><li>13. Polygons and Construction</li><li>14. Data Analysis</li></ol> <p><b>Sec 3 Topics tested</b></p> <ol style="list-style-type: none"><li>1. Indices</li><li>2. Quadratic Equations</li><li>3. Linear Inequalities</li><li>4. Conditions of Congruency and Similarity</li><li>5. Coordinate Geometry</li><li>6. Functions and Graphs</li><li>7. Trigonometry</li><li>8. Applications of trigonometry</li><li>9. Angle Properties of Circles</li><li>10. Arc Length &amp; Sector Area</li></ol>

Secondary 3 EX Subjects	Topics / Chapters
Additional Mathematics	<b>Topics tested</b> 1. Non-linear Simultaneous Equation 2. Polynomials and Partial Fractions 3. Exponential and Logarithmic functions 4. Surds 5. Quadratic Equations and Inequalities 6. Coordinate Geometry and Equation of Circles 7. Trigonometric Functions and Their Graphs 8. Further Trigonometry (excluding Additional formula, Double Angle Formula and R-formula)
Science Chemistry	1. Experimental Chemistry 2. The Particulate Nature of Matter 3. Atomic Structure 4. Chemical Bonding and Structure 5. Formulae and Equation Writing 6. The Mole Concept and Stoichiometry 7. Properties of Acids
Science Physics	1. Physical Quantities, Units and Measurement 2. Kinematics 3. Forces and Pressure 4. Dynamics 5. Turning Effect of Forces 6. Energy 7. Kinetic Particle Model of Matter 8. Thermal Processes 9. General Wave Properties I: Introduction 10. Electromagnetic Waves
Science Biology	1. Cell Structure and Organisation 2. Movement of Substances 3. Biological Molecules 4. Enzymes 5. Nutrition in Humans 6. Transport in Humans 7. Respiration

Secondary 3 EX Subjects	Topics / Chapters
Chemistry	<ol style="list-style-type: none"> <li>1. Experimental Chemistry</li> <li>2. Kinetic Particle Theory</li> <li>3. Atomic Structure</li> <li>4. Chemical Bonding</li> <li>5. Structure and Properties of Materials</li> <li>6. Chemical Formulae and Equations</li> <li>7. Mole Concept and Stoichiometry</li> <li>8. Acids and Bases</li> <li>9. Salts</li> <li>10. Ammonia</li> <li>11. Qualitative Analysis</li> <li>12. Periodic Table (exclude specific group trends in Group 1, 17, 18 and Transition Elements)</li> </ol>
Physics	<ol style="list-style-type: none"> <li>1. Physical Quantities, Units and Measurement</li> <li>2. Kinematics</li> <li>3. Dynamics I: Mass and Weight</li> <li>4. Dynamics II: Forces</li> <li>5. Turning Effect of Forces</li> <li>6. Pressure</li> <li>7. Energy</li> <li>8. Kinetic Particle Model of Matter</li> <li>9. Thermal Processes</li> <li>10. Thermal Properties of Matter</li> <li>11. General Wave Properties I: Introduction</li> <li>12. General Wave Properties II: Sound</li> <li>13. Electromagnetic Waves</li> </ol>
Biology	<ol style="list-style-type: none"> <li>1. Cell Structure and Organisation</li> <li>2. Movement of Substances</li> <li>3. Biological Molecules</li> <li>4. Enzymes</li> <li>5. Animal Nutrition</li> <li>6. Transport in Humans</li> <li>7. Respiration</li> <li>8. Excretion</li> <li>9. Homeostasis and Hormonal Control</li> </ol>

Secondary 3 EX Subjects	Topics / Chapters
Chinese Language	CL: P1 : 实用文、作文 P2 ( 单元 1-5 ) 语文应用、阅读理解一、阅读理解二 P3: 口试和听力
Malay Language	<b>Kertas 1 Penulisan Fungsional dan Esei</b>  <b>Bahagian A</b> <b>Penulisan Fungsional</b> <ul style="list-style-type: none"> <li>• Respons terhadap sebuah blog/forum</li> <li>• E-mel Formal</li> </ul> <b>Bahagian B</b> <b>Penulisan Esei</b> <ul style="list-style-type: none"> <li>• Deskriptif</li> <li>• Ekspositori</li> <li>• Naratif</li> </ul> <b>Kertas 2 Penggunaan Bahasa dan Pemahaman</b>  <b>Bahagian A</b> <b>Penggunaan Bahasa</b> <ul style="list-style-type: none"> <li>• Tatabahasa</li> <li>• Respons Bebas</li> </ul> <b>Bahagian B</b> <b>Soalan B1</b> Menginterpretasi teks  <b>Soalan B2</b> Rangsangan Grafik  <b>Bahagian C</b> Teks Bacaan 3 (OE)  <b>Kertas 3</b> <ul style="list-style-type: none"> <li>• Lisan</li> <li>• Kefahaman Mendengar</li> </ul>

Secondary 3 EX Subjects	Topics / Chapters
Tamil Language	<p><b>TL</b></p> <p><b>Paper 1 கட்டுரை</b>  <b>‘அ’ பிரிவு</b>  மின்னஞ்சல் எழுதுதல் (உறவுமுறை மின்னஞ்சல், அலுவல் சார்ந்த மின்னஞ்சல்)  <b>‘ஆ’ பிரிவு</b>  கட்டுரை  வகைகள்: நிகழ்வு, விளக்கம், கதை  <b>Paper 2 மொழிமரபும் பயன்பாடும் மற்றும் கருத்தறிதலும்</b>  <b>‘அ’ பிரிவு</b>  A1 மரபுத்தொடர்களும் இணைமொழிகளும்  A2 முன்னுணர்வுக் கருத்தறிதல்  <b>‘ஆ’ பிரிவு</b>  B3 தெரிவுவிடைக் கருத்தறிதல்  B4 பிழை திருத்தம்</p> <p><b>‘இ’ பிரிவு</b>  C5 சுயவிடைக் கருத்தறிதல்</p> <p><b>Paper 3</b>  வாய்மொழி  வாய்விட்டு வாசித்தல், உரையாடல்  கேட்டல் கருத்தறிதல்</p>
Higher Chinese Language	<p>P1 : 实用文和作文</p> <p>P2 : 语文应用 ( 短文填空&amp;病句修改 )、阅读理解一、阅读理解二、片段缩写</p> <p>P3 : 口试</p>

Secondary 3 EX Subjects	Topics / Chapters
Higher Malay Language	<p><b>Kertas 1: Karangan</b>  <b>Bahagian A</b>  <b>Penulisan Fungsional</b></p> <ul style="list-style-type: none"> <li>• Respons terhadap sebuah forum</li> <li>• E-mel Tidak Rasmi</li> </ul> <p><b>Bahagian B</b>  Penulisan Esei</p> <ul style="list-style-type: none"> <li>• Naratif</li> <li>• Deskriptif</li> <li>• Ekspositori</li> </ul> <p><b>Kertas 2 Penggunaan Bahasa dan Pemahaman</b>  <b>Bahagian A</b>  <b>Penggunaan Bahasa</b></p> <ul style="list-style-type: none"> <li>• Teks Bacaan 1 (FIB)</li> <li>• Teks Bacaan 2 (Penyuntingan)</li> </ul> <p><b>Bahagian B</b>  Pemahaman Teks 1 (MCQ &amp; OE)</p> <p><b>Bahagian C</b>  Pemahaman Teks 2 (OE)  Pemahaman Teks 3 (OE)</p> <p><b>Bahagian D</b>  Ringkasan</p> <p><b>Kertas 3</b>  Lisan</p>
Literature in Chinese	<p>A 组：现当代短篇小说和古代诗歌选读 （2 题选答 1 题，每题 25 分。）</p> <p>B 组：现当代诗歌选读和文学作品赏析 （2 题选答 1 题，每题 25 分。）</p>
Core Geography	<p>Topics covered:</p> <p>Cluster 1: Geography in Everyday Life</p> <ul style="list-style-type: none"> <li>• Topic 1 – Thinking Geographically</li> <li>• Topic 2 – Sustainable Development</li> <li>• Topic 3 – Geographical Methods</li> </ul> <p>(All pages of Textbook in cluster 1 are covered)</p> <p>Cluster 3: Climate</p> <ul style="list-style-type: none"> <li>• Topic 1 – Weather and Climate</li> <li>• Topic 2 – Climate change (Up to Textbook Pg 62)</li> </ul>

Secondary 3 EX Subjects	Topics / Chapters
Elective Geography	<p>Total: 32 m [1 hr 15 min]</p> <p>Section A - Geography of Everyday life + GI [14m] All pages of Textbook in Geography in Everyday Life</p> <p>Section B - Climate Cluster- [18m] (Climate types, Determinants of Temperature, Formation and types of precipitation) Page 1 - 19 of Textbook in Climate</p>
Social Studies	<p>Section A: Source Based Case Study (35m)</p> <ol style="list-style-type: none"> <li>1. Inference</li> <li>2. Purpose</li> <li>3. Comparison</li> <li>4. Reliability</li> <li>5. Evaluation</li> </ol> <p>Section B: Structured Response Question (15m)</p> <ol style="list-style-type: none"> <li>1. Opinion response</li> <li>2. Description &amp; Explanation of Factors</li> </ol> <p>Topics from Textbook: Chapter 1-5</p>
Core History	<p><u>Section A (SBQ) - 30m</u></p> <ol style="list-style-type: none"> <li>1. Infer Basic</li> <li>2. Infer Purpose</li> <li>3. Comparison</li> <li>4. Reliability</li> <li>5. Evaluation</li> </ol> <p>Topics: Malaya, Hitler, Causes of WWII (Europe)</p> <p><u>Section B (SEQ)</u></p> <p>3 questions choose 2</p> <p>Topics: Malaya, Vietnam, ToV/LoN, Hitler, Japan, Causes of WWII (Europe)</p>

Secondary 3 EX Subjects	Topics / Chapters
Elective History	<p>Section A (30 Marks) Source-Based Case Study: Answer all 5 questions</p> <ol style="list-style-type: none"> <li>1. Inference</li> <li>2. Purpose</li> <li>3. Comparison</li> <li>4. Reliability</li> </ol> <p>Topic: Nazi Germany</p> <p>Section B (20 Marks) Structured Essay Question Skills Answer both questions</p> <ol style="list-style-type: none"> <li>1. Explain and evaluate</li> </ol> <p>Topics:</p> <ul style="list-style-type: none"> <li>• Chapter 1 - Attempts to Make and Keep Peace</li> <li>• Chapter 3 - Militarist Japan</li> </ul>
Elective Literature	<p>Prose and Unseen Poetry [50 marks]</p> <p>There will be two sections in this paper.</p> <ul style="list-style-type: none"> <li>• Candidates will select one question from each of the two sections.</li> <li>• In total, candidates will answer two questions.</li> <li>• Each question is 25% of the total weighting.</li> </ul> <p>Section A: Prose [25 marks] - The Chrysalids by John Wyndham (Chapters 1 to 4)</p> <ul style="list-style-type: none"> <li>• For this section, one passage-based question and two essay questions will be set.</li> <li>• Candidates will answer one question [25%]</li> </ul> <p>Section B: Unseen Poetry [25 marks]</p> <ul style="list-style-type: none"> <li>• There will be a choice of two unseen poems with one question set (2 part questions) on each poem.</li> <li>• Candidates will answer one of the two questions [25%].</li> <li>• One question will be set on a Singapore text.</li> </ul>



Secondary 3 EX Subjects	Topics / Chapters
Principles of Accounts	<p>Paper 1 : 40 marks (1 hour) 3 to 4 questions  Paper 2: 60 marks (2 hours) 4 questions</p> <p><u>Topics covered:</u>  Chapter 1 to 5, Chapter 8 to 10 (Express)</p>
Computing	<p>Chapter 1: How do computers work  Chapter 2: How can algorithms be used to solve problems  Chapter 3: How do I use flowcharts and pseudo-code?  Chapter 4: How do I write programs?  Chapter 5: How can programs be used to solve problems?  Chapter 6: How do I ensure that a program works as intended?  Chapter 8: How are number systems applied in real life?  Chapter 9: How do logic circuits make decisions?</p>
Visual Art	<p>Coursework</p> <p>1. 8 pages of A3 Preparatory Studies (Drawn on the front and back of 3 A3 drawing paper)</p> <ul style="list-style-type: none"> <li>● Investigation and Interpretation of Theme</li> <li>● Exploration and Development of Theme</li> <li>● Aesthetics Qualities</li> <li>● Control of Materials and Technical Processes</li> <li>● Personal Response</li> </ul> <p>2. Drawing and painting - Final work  Individual ideation based on selected topic: Topics have been introduced on Term 3 Week 10.</p>



## 2023 End-of-Year Examinations Topics List Secondary 3 Normal (Academic)

Secondary 3 NA Subjects	Topics / Chapters
English Language	<p>Paper 1 Sect A: Editing Sect B: Situational Writing Sect C: Essay Writing</p> <p>Paper 2 Sect A: Visual Text Sect B: Literary Text Sect C: Informative Text</p> <p>Paper 3 Listening Comprehension</p>
Elementary Mathematics	<p><b>Sec 1 and 2 Topics tested</b></p> <ol style="list-style-type: none"><li>1. Numbers ( prime numbers etc..)</li><li>2. Factors and Multiples</li><li>3. Approximation and Estimation</li><li>4. Ratio, Rate and Speed</li><li>5. Percentage</li><li>6. Number patterns</li><li>7. Perimeter and Area of Plane Figures</li><li>8. Algebraic manipulation</li><li>9. Expansion and Factorisation of Algebraic Expressions</li><li>10. Quadratic Fractions and Equations</li><li>11. Linear Equations in Two variables ( includes basic linear inequalities)</li><li>12. Maps &amp; Proportion</li><li>13. Mensuration- surface area, volume of a solid</li><li>14. Angles and parallel lines</li><li>15. Statistics ( including Mean, Median &amp; mode)</li></ol> <p><b>Sec 3 Topics tested</b></p> <ol style="list-style-type: none"><li>1. Algebraic Expressions &amp; Formulae</li><li>2. Quadratic Equations &amp; graphs</li><li>3. Indices &amp; standard form</li><li>4. Coordinate Geometry</li><li>5. Functions and Graphs</li><li>6. Trigonometry</li><li>7. Applications of trigonometry</li><li>8. Congruence &amp; Similarity tests</li><li>9. Area &amp; volume of Similar Figures &amp; Solids</li><li>10. Arc Length &amp; sector Areas (in degree only)</li></ol>

Secondary 3 NA Subjects	Topics / Chapters
Additional Mathematics	Chapter 1 Quadratic Function Chapter 2 Equations and Inequalities Chapter 3 Surds Chapter 4 Polynomials, Cubic equations and Partial Fractions Chapter 7 Coordinate Geometry Chapter 9 Trigonometric Functions and Graphs
Science Chemistry	1. Experimental Chemistry 2. Kinetic Particle Theory 3. Atomic Structure 4. Chemical Bonding 5. Structure and Properties of Materials 6. Chemical Formulae and Equations 7. Mole Concept and Stoichiometry 8. Acids and Bases 9. Qualitative Analysis
Science Physics	1. Physical Quantities, Units and Measurement 2. Kinematics 3. Forces and Pressure 4. Dynamics 5. Energy 6. Kinetic Particle Model of Matter 7. Thermal Processes 8. General Wave Properties I: Introduction 9. Electromagnetic Waves
Science Biology	1. Cell Structure and Organisation 2. Movement of Substances 3. Biological Molecules 4. Enzymes 5. Animal Nutrition 6. Transport in Humans 7. Respiration in Humans

Secondary 3 NA Subjects	Topics / Chapters
Chinese Language	P1 : 实用文、作文 P2 ( 单元 1-5 ) 综合填空、阅读理解一、阅读理解二 P3: 口试和听力
Malay Language	<b>Kertas 1: Karangan</b>  <b>Bahagian A</b> <b>Penulisan Fungsional</b> <ul style="list-style-type: none"> <li>• Respons terhadap sebuah blog</li> <li>• E-mel Rasmi</li> </ul> <b>Bahagian B</b> Penulisan Esei <ul style="list-style-type: none"> <li>• Naratif</li> <li>• Deskriptif</li> <li>• Ekspositori</li> </ul> <b>Kertas 2 Penggunaan Bahasa dan Pemahaman</b> <b>Bahagian A</b> <b>Penggunaan Bahasa</b> <ul style="list-style-type: none"> <li>• Teks Bacaan 1 &amp; 2 (FIB dengan kata-kata bantuan )</li> </ul> <b>Bahagian B</b> <b>Soalan B1</b> Melengkapkan Dialog (MCQ)  <b>Soalan B2</b> Rangsangan Grafik  <b>Bahagian C</b> Teks Bacaan 3 (OE)  <b>Kertas 3</b> <ul style="list-style-type: none"> <li>• Lisan</li> <li>• Kefahaman Mendengar</li> </ul>

Secondary 3 NA Subjects	Topics / Chapters
Tamil Language	<p><b><u>TL</u></b></p> <p><b>Paper 1 கட்டுரை</b>  <b>‘அ’ பிரிவு</b>          மின்னஞ்சல் எழுதுதல் (உறவுமுறை மின்னஞ்சல், அலுவல் சார்ந்த மின்னஞ்சல்)  <b>‘ஆ’ பிரிவு</b>          கட்டுரை          வகைகள்: நிகழ்வு, விளக்கம், கதை  <b>Paper 2 மொழிமரபும் பயன்பாடும் மற்றும் கருத்தறிதலும்</b>  <b>‘அ’ பிரிவு</b>          A1 மரபுத்தொடர்களும் இணைமொழிகளும்          A2 முன்னுணர்வுக் கருத்தறிதல்  <b>‘ஆ’ பிரிவு</b>          B3 தெரிவுவிடைக் கருத்தறிதல்          B4 பிழை திருத்தம்  <b>‘இ’ பிரிவு</b>          C5 சுயவிடைக் கருத்தறிதல்  <b>Paper 3</b>          வாய்மொழி          வாய்விட்டு வாசித்தல், உரையாடல்          கேட்டல் கருத்தறிதல்</p>
Elective Geography	<p>Topics covered:</p> <p>Cluster 1: Geography in Everyday Life</p> <ul style="list-style-type: none"> <li>• Topic 1 – Thinking Geographically</li> <li>• Topic 2 – Sustainable Development</li> <li>• Topic 3 – Geographical Methods</li> </ul> <p>(All pages of Textbook of Geography in Everyday Life are covered)</p> <p>Cluster 3: Climate</p> <ul style="list-style-type: none"> <li>• Topic 1 – Weather and Climate - Only until factors affecting temperature (altitude and latitude)</li> </ul> <p>Pg 1 - Pg 10 of textbook of Climate</p>

Secondary 3 NA Subjects	Topics / Chapters
Elective History	<p>Section A (30 Marks) Source-Based Case Study: Answer all 5 questions</p> <ol style="list-style-type: none"> <li>1. Inference</li> <li>2. Purpose</li> <li>3. Comparison</li> <li>4. Reliability</li> </ol> <p>Topic: Nazi Germany</p> <p>Section B (20 Marks) Structured Essay Question Skills Answer both questions</p> <ol style="list-style-type: none"> <li>1. Explain</li> </ol> <p>Topics:</p> <ul style="list-style-type: none"> <li>• Chapter 1 - Attempts to Make and Keep Peace</li> <li>• Chapter 3 - Militarist Japan</li> </ul>
Social Studies	<p>Section A: Source Based Case Study (35m)</p> <ol style="list-style-type: none"> <li>1. Inference</li> <li>2. Purpose</li> <li>3. Comparison</li> <li>4. Reliability</li> <li>5. Evaluation</li> </ol> <p>Section B: Structured Response Question (15m)</p> <ol style="list-style-type: none"> <li>1. Opinion response</li> <li>2. Description &amp; Explanation of Factors</li> </ol> <p>Topics from Textbook: Chapter 1-5</p>

Secondary 3 NA Subjects	Topics / Chapters
Elective Literature in English	<p>Prose and Unseen Poetry [50 marks]</p> <p>There will be two sections in this paper.</p> <ul style="list-style-type: none"> <li>• Candidates will select one question from each of the two sections.</li> <li>• In total, candidates will answer two questions.</li> <li>• Each question is 25% of the total weighting.</li> </ul> <p>Section A: Prose [25 marks] - How We Live Now ed. by Yu-Mei Balasingamchow (Short Stories: 'Painting the Tiger', 'Close to Home', 'Fireworks')</p> <ul style="list-style-type: none"> <li>• For this section, one passage-based question and two essay questions will be set.</li> <li>• Candidates will answer one question [25%]</li> </ul> <p>Section B: Unseen Poetry [25 marks]</p> <ul style="list-style-type: none"> <li>• There will be a choice of two unseen poems with one question set (2 part questions) on each poem.</li> <li>• Candidates will answer one of the two questions [25%].</li> <li>• One question will be set on a Singapore text.</li> </ul>
Design and Technology	<ol style="list-style-type: none"> <li>1. Design</li> <li>2. Mechanisms</li> <li>3. Electronics</li> </ol> <p>Refer to <a href="https://www.seab.gov.sg/docs/default-source/national-examinations/syllabus/nlevel/2023syllabus/7055_y23_sy.pdf">https://www.seab.gov.sg/docs/default-source/national-examinations/syllabus/nlevel/2023syllabus/7055_y23_sy.pdf</a></p>

Secondary 3 NA Subjects	Topics / Chapters
Nutrition and Food Science	<ol style="list-style-type: none"> <li>1) Nutrients (Chapter 1 to Chapter 5) <ul style="list-style-type: none"> <li>• Proteins, Carbohydrates, Fats, Vitamins, Minerals</li> </ul> </li> <li>2) Water, Dietary fibre (Chapter 6)</li> <li>2) Diet and Health Problems <ul style="list-style-type: none"> <li>- Obesity, Hypertension, Type 2 Diabetes, Coronary heart disease, Dehydration, Heat stroke, Constipation, Osteoporosis, Anaemia</li> </ul> </li> <li>3) Diet and Meal Planning <ul style="list-style-type: none"> <li>- Balanced diet, Energy balance, Factors to consider when planning meals</li> </ul> </li> <li>4) Meal Analysis <ul style="list-style-type: none"> <li>- Evaluate and modify recipes / meals using food guides from HPD and RDA to meet different nutritional needs</li> </ul> </li> <li>5) Convenience Food <ul style="list-style-type: none"> <li>- Different types of convenience food (ready-to-cook, ready-to-eat, bottled, canned, dried, frozen, chilled food)</li> <li>- Food and nutrition label</li> </ul> </li> <li>6) Food Safety <ul style="list-style-type: none"> <li>- Avoid and reduce risk of food spoilage and food contamination</li> </ul> </li> <li>7) Preparation and Cooking of Food <ul style="list-style-type: none"> <li>- Meat, Poultry, Eggs, Dairy products, Fruit, Vegetables</li> </ul> </li> <li>8) Methods of Cooking <ul style="list-style-type: none"> <li>- Heat transfer: Conduction, Convection, Radiation</li> <li>- MOCs: Grilling, Baking, Dry frying, Stir frying, Sauteing, Shallow frying, Deep frying, Boiling, Simmering, Steaming</li> </ul> </li> <li>9) Reactions in Food during Preparation and Cooking <ol style="list-style-type: none"> <li>a) Food reactions <ul style="list-style-type: none"> <li>- Carbohydrates: Gelatinisation, Caramelisation, Dextrinisation</li> <li>- Fats: Shortening, Emulsion, Melting point, Smoke point</li> <li>- Proteins: Denaturation, Foaming, Coagulation, Gluten development, Maillard browning</li> <li>- Fruits / Vegetables: Enzymatic browning</li> </ul> </li> <li>b) Preparation of dishes and function of key ingredients (flour, sugar, raising agent, fat, egg, liquid) in: <ul style="list-style-type: none"> <li>- Cakes, Biscuits (creaming, rubbing in, whisking)</li> <li>- Short crust pastry</li> <li>- Batters (thin and thick)</li> <li>- Sauces (roux and blended)</li> </ul> </li> </ol> </li> </ol>



	<p>10) Sensory Evaluation</p> <ul style="list-style-type: none"> <li>- Reasons for conducting sensory evaluation of food</li> <li>- Evaluate sensory properties of food (texture, flavour, appearance, aroma)</li> </ul>
Principles of Accounts	<p>Paper 1: 40 marks (1 hour) 3 to 4 questions  Paper 2: 60 marks (2 hours) 4 questions</p> <p><u>Topics covered:</u>  Chapter 1 to 5, Chapter 8 to 9 (NA)</p>



## JURONG SECONDARY SCHOOL

### 2023 End-of-Year Examinations Topics List Secondary 3 Normal (Technical)

Secondary 3 NT Subjects	Topics / Chapters
English Language	Paper 1 Paper 2 (Full papers)
Mathematics	1. Sec 1 Textbook - All Chapters 2. Sec 2 Textbook - All Chapters 3. Sec 3 Textbook - All Chapters
Science	Chapter 1: Energy Chapter 2: Electricity Chapter 3: Waves Chapter 4: Effects of Force Chapter 6: Food Chemistry Chapter 7: Food Safety Chapter 8: Staying Healthy (until including Calculating BMI)
Basic Chinese Language	P1 实用文：分享贴文 P1（单元 1-5）：语文理解与运用：语文应用、阅读理解一、阅读理解二 P2：口试 P3：听力
Basic Malay Language	<b>Kertas 1 Penggunaan Bahasa dan Pemahaman</b> <b>Bahagian 1</b> <b>Bahagian A</b> Respons Bebas (Blog/Forum/Hantaran)  <b>Bahagian 2</b> <b>Bahagian A</b> <ul style="list-style-type: none"><li>Teks Infografik 1 &amp; 2 (MCQ)</li></ul> <b>Bahagian B</b> <ul style="list-style-type: none"><li>Teks Bacaan 3 (MCQ)</li></ul> <b>Bahagian C</b> <ul style="list-style-type: none"><li>Teks Bacaan 4 (MCQ)</li></ul> <b>Kertas 2</b> <ul style="list-style-type: none"><li>Bacaan Lantang</li><li>Interaksi Lisan</li></ul> <b>Kertas 3</b> <ul style="list-style-type: none"><li>Kefahaman Mendengar</li></ul>

Secondary 3 NT Subjects	Topics / Chapters
Basic Tamil Language	<p><b>BTL:</b>  <b>Paper 1 (Part 1 &amp; 2)</b>  பகுதி -1 நடைமுறை சார்ந்த எழுத்துப்படைப்பு  பகுதி- 2 (மொழி மரபும் பண்பாடும் மற்றும் கருத்தறிதல்)  A1 மொழிப்பயன்பாடு (MCQ)  A2 மொழிப்பயன்பாடு (MCQ)  B3 மரபுத்தொடர்களும்,இணைமொழிகளும்(MCQ)  C4 கருத்து விளக்கப்படக் கருத்தறிதல்(MCQ)  D5 வாசிப்புக் கருத்தறிதல்(MCQ)</p> <p><b>Paper 2</b>  வாய்மொழி  <b>Paper 3</b>  கேட்டல் கருத்தறிதல்</p>
Elements of Business Skills	1. Introduction to Business Activities 2. Businesses in the Three Industries 3. Introduction to Marketing 4. The Marketing Mix 5. Communicating with the Customer 6. Customer Service
Computer Applications	Theory Paper 1 (30%) Practical Paper 2 (35%) - Inkscape, Word, Powerpoint Practical Paper 3 (35%) - Openshot, Excel, Scratch Topics 1. Computer Fundamentals (CPF) 2. Media Elements (MEL) 3. Document Processing (DOP) 4. Animation and Game Making (AGM) 5. Spreadsheet (SST) 6. Interactive Multimedia Communications ((IMC)
Mobile Robotics	Chapter 1 Mobile Robots Chapter 2 Basic Electricity Chapter 3 Basic Electronics Chapter 4 Digital Electronics