



**SOS-HGIC**

**IGCSE SYLLABUS SYNOPSES**

**AND**

**SUBJECT SELECTION GUIDE**

## INTRODUCTION

IGCSE (International General Certificate of Secondary Education) is an internationally recognized curriculum and examination system administered by CIE (Cambridge International Examinations), UK, which has a long history (since 1857) of delivering high quality examinations and assessments in over 165 countries.

IGCSE syllabuses are designed as two-year courses for examination at age 16-plus.

### FEATURES OF THE IGCSE COURSE

- Emphasizes the APPLICATION of concepts to familiar or unfamiliar situations
- Encourages the development of oral and practical skills
- Encourages the use of initiative to solve problems
- Develops the student's ability to undertake individual projects

IGCSE subjects are categorized into five syllabus groups, subjects within each group having similar AIMS and ASSESSMENT OBJECTIVES.

## GROUP 1 LANGUAGES

### 1. FIRST LANGUAGE ENGLISH

#### ***AIMS***

The aims are to:

1. Enable students to communicate accurately, appropriately and effectively in speech and writing;
2. Enable students to understand and respond appropriately to what they hear, read and experience;
3. Encourage students to enjoy and appreciate variety of language;
4. Complement students' other areas of study by developing skills of a more general application (e.g. analysis, synthesis, drawing of inferences);
5. Promote students' personal development and an understanding of themselves and others.

#### ***ASSESSMENT OBJECTIVES***

##### READING

Candidates will be assessed on their ability to:

- R1 Understand and collate explicit meanings
- R2 Understand, explain and collate implicit meanings and attitudes
- R3 Select analyse and evaluate what is relevant to specific purposes
- R4 Understand how writers achieve effects

## WRITING

Candidates will be assessed on their ability to:

- W1 Articulate experience and express what is thought, felt and imagined
- W2 Order and present facts, ideas and opinions
- W3 Understand and use a range of appropriate vocabulary
- W4 Use language and register appropriate to audience and context
- W5 Make accurate and effective use of paragraphs, grammatical structures, sentences, punctuation and spelling

## SPEAKING AND LISTENING

Candidates will be assessed on their ability to:

- S1 Understand, order and present facts, ideas and opinions
- S2 Articulate experience and express what is thought, felt and imagined
- S3 Communicate clearly and fluently
- S4 Use language and register appropriate to audience and context
- S5 Listen to and respond appropriately to the contributions of others

## **2. FOREIGN LANGUAGE FRENCH**

### ***AIMS***

The aims are to:

1. Develop the ability to use the language effectively for purposes of practical communication within the country of residence, where appropriate, and in all the countries where the language is spoken;
2. Form a sound base of the skills, language and attitudes required for further study, work and leisure;
3. Offer insights into the culture and civilisation of the countries where the language is spoken – this may include literature where appropriate;
4. Encourage fuller integration into the local community, where relevant;
5. Develop a fuller awareness of the nature of language and language learning;
6. Encourage positive attitudes toward foreign language learning and towards speakers of foreign languages and a sympathetic approach to other cultures and civilisations;
7. Provide enjoyment and intellectual stimulation;
8. Complement other areas of study by encouraging skills of a more general application (e.g.analysis, memorising, drawing of inferences).

**ASSESSMENT OBJECTIVES**

The one assessment objective in Foreign Language is Communication, which incorporates the four sub-skills:

- A Listening
- B Reading
- C Speaking
- D Writing

## GROUP 2 HUMANITIES AND SOCIAL SCIENCES

### 3. LITERATURE

#### ***AIMS***

The aims are to develop the ability of students to:

1. Communicate accurately, appropriately and effectively in speech and writing;
2. Understand and respond imaginatively to what they hear, read and experience in a variety of media;
3. Enjoy the reading of literature and appreciate its contribution to aesthetic and imaginative growth;
4. Explore areas of universal human concern, thus leading to a greater understanding of themselves and others.

#### ***ASSESEMENT OBJECTIVES***

The Assessment Objectives in Literature are grouped under headings as follows:

- A Knowledge with understanding
- B Critical interpretation
- C Judgement and personal response.

#### **A KNOWLEDGE WITH UNDERSTANDING**

Students should be able to:

1. acquire first-hand knowledge of the content of literary texts;
2. understand the literal meanings of texts and the contexts of those meanings.

#### **B CRITICAL INTERPRETATION**

Students should be able to:

3. understand literary texts beyond their literal meanings in terms of the issues and attitudes they raise;
4. recognise and appreciate ways in which writers use language to create their effects of narration, description, characterisation and literary structure.

#### **C JUDGEMENT AND PERSONAL RESPONSE**

Students should be able to:

5. explain and discuss evaluations
6. communicate a sensitive and informed personal response to what is read.

## 4. ECONOMICS

### ***AIMS***

The aims are to enable candidates to:

1. Develop a sound knowledge and understanding of economic terminology and principles and elementary economic theory;
2. Develop basic economic numeracy and literacy and the ability to handle simple data including graphs and diagrams;
3. Use the tools of economic analysis in particular situations;
4. Identify and discriminate between differing sources of information and to distinguish between facts and value judgements in economic issues;
5. Employ economic skills, with reference to individuals, groups and organisations in order to understand better the world in which they live;
6. Participate more fully in decision-making processes, as consumers and producers and as citizens of the local, national and international community;
7. Develop an understanding of the economies of developed and developing nations and of the relationships between them; and to appreciate these relationships from the perspective of both developed and developing nations.

### ***ASSESSMENT OBJECTIVES***

The four assessment objectives in Economics are:

- A Knowledge with understanding
- B Analysis
- C Judgement and decision-making
- D Investigation.

A description of each assessment objective follows.

#### A KNOWLEDGE WITH UNDERSTANDING

Students should be able to demonstrate their knowledge and understanding in relation to:

1. Economic phenomena, facts, definitions, concepts, principles and theories;
2. Economic vocabulary, terminology and conventions.

#### B ANALYSIS

Students should be able to:

3. Select, organise and interpret data;
4. Apply economic knowledge and understanding in verbal, numerical, diagrammatic, pictorial and graphical form;

5. Use economic data, to recognise patterns in such data, and to deduce relationships.

## C JUDGEMENT AND DECISION MAKING

Students should be able to:

6. Distinguish between evidence and opinion, make reasoned judgements and communicate them in an accurate and logical manner;
7. Recognize that economic theory is subject to various limitations and uncertainties;
8. Evaluate the social and environmental implications of particular courses of economic action.

## D INVESTIGATION

Students should be able to:

9. Observe and record accurately and systematically;
10. Draw conclusions from economic enquiry, and evaluate critically observations and other data;
11. Communicate conclusions in a logical and concise manner.

## 5. **GEOGRAPHY**

### ***AIMS***

The aims are to encourage students to develop:

1. A sense of place and an understanding of relative location on a local, regional and global scale;
2. An awareness of the characteristics and distribution of a selection of contrasting physical and human environments;
3. An understanding of some of the processes affecting the development of such environments;
4. An understanding of the spatial effects of the ways in which people interact with each other and with their environments;
5. An understanding of different communities and cultures throughout the world and an awareness of the contrasting opportunities and constraints presented by different environments.

### ***ASSESSMENT OBJECTIVES***

The four assessment objectives in Geography are:

- A Knowledge with understanding
- B Analysis
- C Judgment and decision-making

D Investigation (enquiry skills, practical skills and presentation skills).

A description of each assessment objective follows.

A KNOWLEDGE WITH UNDERSTANDING

Students should be able to demonstrate an understanding of:

1. The wide range of processes, including human actions, contributing to the development of
  - (a) Physical, economic, social, political and cultural environments and their associated effects on the landscapes;
  - (b) Spatial patterns and interactions which are important within such environments;
2. The inter-relationships between people's activities and the total environment and an ability to seek explanations for them;
3. The importance of scale (whether local, regional or global) and the time at which spatial distributions and the working of systems are considered;
4. The changes, which occur through time and places, landscapes and spatial distribution.

B ANALYSIS

Students should be able to:

5. Select, organise, present and interpret geographical data;
6. Use and apply geographical knowledge and understanding in verbal, numerical, diagrammatic, pictorial and graphical form;
7. Use geographical data to recognise patterns in such data and to deduce relationships.

C JUDGEMENT AND DECISION MAKING

Through their geographical training students should be able to:

8. Reason, make judgements (including evaluation and conclusions) which demonstrate, where appropriate
  - (a) A sensitivity to, and a concern for, landscape and the environment;
  - (b) An aesthetic appreciation of the earth including its people, places, landscapes, natural processes and phenomena;
  - (c) An appreciation of the attitudes, values and beliefs of others in cultural, economic, environmental, political and social issues which have a geographical dimension;
  - (d) An awareness of the contrasting opportunities and constraints of people living in different places and under different physical and human conditions;
  - (e) A willingness to review their own attitudes in the light of new knowledge and experiences;



9. Recognize the role of decision making within a geographical context as affected by
  - (a) The physical and human contexts in which decisions are made;
  - (b) The values and perceptions of groups or individuals;
  - (c) The choices available to decision makers and the influences and constraints within which they operate.

#### D INVESTIGATION (ENQUIRY, PRACTICAL AND PRESENTATION SKILLS)

Students will be expected to demonstrate the ability to do the following:

10. Select and use suitable basic techniques for observing, collecting, classifying, presenting, analysing and interpreting data;
11. Use a variety of sources for obtaining information including
  - (a) Maps and plans at a variety of scales;
  - (b) Audiovisual materials such as pictures, photographs, film, television and radio;
  - (c) Documentary materials such as books, newspapers and magazines;
  - (d) Statistics;
12. Depict information in simple map and diagrammatic form;
13. Select, use and present geographical information in an appropriate form and an effective manner.

## 6. HISTORY

### ***AIMS***

The aims are to:

1. Stimulate interest in and enthusiasm about the past;
2. Promote the acquisition of knowledge and understanding of human activity in the past;
3. Ensure that the candidates' knowledge is rooted in an understanding of the nature and use of historical evidence;
4. Promote an understanding of the nature of cause and consequence, continuity and change, similarity and difference;
5. Provide a sound basis for further study and the pursuit of personal interest;
6. Encourage international understanding;
7. Encourage the development of linguistic and communication skills.

### ***ASSESSMENT OBJECTIVES***

Candidates will be expected to:

1. Recall, select, organise and deploy knowledge of the syllabus content;
2. Demonstrate an understanding of:

- (a) Change and continuity, cause and consequence, similarity and difference;
  - (b) The motives, emotions, intentions and beliefs of people in the past;
3. Comprehend, interpret, evaluate and use a range of sources as evidence in their historical context.

## GROUP 3 SCIENCES

### 7. BIOLOGY

#### **AIMS**

The aims are to:

1. Provide, through well designed studies of experimental and practical science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to
  - 1.1 Become confident citizens in a technological world, to take or develop an informed interest in matters of scientific import;
  - 1.2 Recognize the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life;
  - 1.3 Be suitably prepared for studies beyond the IGCSE level in pure sciences, in applied sciences or in science-dependent vocational courses.
2. Develop abilities and skills that
  - 2.1 Are relevant to the study and practice of Biology;
  - 2.2 Are useful in everyday life;
  - 2.3 Encourage efficient and safe practice;
  - 2.4 Encourage effective communication.
3. Develop attitudes relevant to Biology such as
  - 3.1 Concern for accuracy and precision;
  - 3.2 Objectivity;
  - 3.3 Integrity;
  - 3.4 Enquiry;
  - 3.5 Initiative;
  - 3.6 Inventiveness.
4. Stimulate interest in, and care for, the environment.
5. Promote an awareness that
  - 5.1 Scientific theories and methods have developed, and continue to do so, as a result of the co-operative activities of groups and individuals;
  - 5.2 The study and practice of science is subject to social, economic, technological, ethical and cultural influences and limitations;
  - 5.3 The applications of science may be both beneficial and detrimental to the individual, the community and the environment;
  - 5.4 Science transcends national boundaries and that the language of science, correctly and rigorously applied, is universal.

**ASSESSMENT OBJECTIVES**

The three assessment objectives in Biology are:

- A Knowledge with understanding
- B Handling information and solving problems
- C Experimental skills and investigations.

A description of each Assessment Objective follows.

**A KNOWLEDGE WITH UNDERSTANDING**

Students should be able to demonstrate knowledge and understanding in relation to:

1. Scientific phenomena, facts, laws, definitions, concepts, theories;
2. Scientific vocabulary, terminology, conventions (including symbols, quantities and units);
3. Scientific instruments and apparatus, including techniques of operation and aspects of safety;
4. Scientific quantities and their determination;
5. Scientific and technological applications with their social, economic and environmental implications;

The curriculum content defines the factual material that candidates need to recall and explain.

Questions testing these objectives will often begin with one of the following words: define, state, describe, explain or outline.

**B HANDLING INFORMATION AND SOLVING PROBLEMS**

Students should be able, using oral, written, symbolic, graphical and numerical forms of presentation, to

1. Locate, select, organise and present information from a variety of sources;
2. Translate information from one form to another;
3. Manipulate numerical and other data;
4. Use information to identify patterns, report trends and draw inferences;
5. Present reasoned explanations of phenomena, patterns and relationships;
6. Make predictions and propose hypotheses;
7. Solve problems, including some of a quantitative nature.

These skills cannot be precisely specified in the curriculum content as questions testing such skills are often based on information, which is unfamiliar to the candidate. In answering such questions, candidates are required to use principles and concepts that are within the syllabus and apply them in a logical, deductive manner to a novel situation.

Questions testing these skills will often begin with one of the following words: discuss, predict, suggest, calculate or determine.

## C EXPERIMENTAL SKILLS AND INVESTIGATIONS

Students should be able to:

1. Use techniques, apparatus, and materials (including the following of a sequence of instructions, where appropriate);
2. Make and record observations and measurements;
3. Interpret and evaluate experimental observations and data;
4. Plan and carry out investigations, evaluate methods and suggest possible improvements (including the selection of techniques, apparatus and materials).

## 8. CHEMISTRY

### ***AIMS***

The aims are to:

1. Provide through well-designed studies of experimental and practical science a worthwhile educational experience for all students whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to
  - 1.1 Become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import;
  - 1.2 Recognize the usefulness, and limitations, of scientific method and appreciate its applicability in other disciplines and in everyday life;
  - 1.3 Be suitably prepared for studies beyond the IGCSE level in pure sciences, in applied sciences or in science-dependent vocational courses.
2. Develop abilities and skills that
  - 2.1 Are relevant to the study and practice of Chemistry;
  - 2.2 Are useful in everyday life;
  - 2.3 Encourage efficient and safe practice;
  - 2.4 Encourage effective communication.
3. Develop attitudes relevant to Chemistry such as
  - 3.1 Concern for accuracy and precision;
  - 3.2 Objectivity;
  - 3.3 Integrity;
  - 3.4 Enquiry;
  - 3.5 Initiative;
  - 3.6 Inventiveness.
4. Stimulate interest in, and care for, the environment.

5. Promote an awareness that
  - 5.1 scientific theories and methods have developed, and continue to do so, as a result of cooperative activities of groups and individuals;
  - 5.2 the study and practice of science are subject to social, economic, technological, ethical and cultural influences and limitations;
  - 5.3 the applications of science may be both beneficial and detrimental to the individual, the community and the environment;
  - 5.4 science transcends national boundaries and that the language of science, correctly and rigorously applied, is universal.

### ***ASSESSMENT OBJECTIVES***

The three assessment objectives in Chemistry are

- A Knowledge with understanding
- B Handling information and solving problems
- C Experimental skills and investigations

A description of each assessment objective follows.

#### **A KNOWLEDGE WITH UNDERSTANDING**

Students should be able to demonstrate knowledge and understanding in relation to:

1. Scientific phenomena, facts, laws, definitions, concepts and theories;
2. Scientific vocabulary, terminology and conventions (including symbols, quantities and units);
3. Scientific instruments and apparatus, including techniques of operation and aspects of safety;
4. Scientific quantities and their determination;
5. Scientific and technological applications with their social, economic and environmental implications.

The Curriculum Content defines the factual material that candidates may be required to recall and explain. Questions testing this will often begin with one of the following words: define, state, describe, explain or outline.

#### **B HANDLING INFORMATION AND PROBLEM SOLVING**

Students should be able, in words or using other written forms of presentation (i.e. symbolic, graphical and numerical), to:

1. Locate, select, organise and present information from a variety of sources,
2. Translate information from one form to another,
3. Manipulate numerical and other data,
4. Use information to identify patterns, report trends and draw inferences,
5. Present reasoned explanations for phenomena, patterns and relationships,
6. Make predictions and hypotheses,

7. Solve problems, including some of a quantitative nature.

These skills cannot be precisely specified in the Curriculum Content because questions testing such skills are often based on information, which is unfamiliar to the candidate. In answering such questions, candidates are required to use principles and concepts that are within the syllabus and apply them in a logical, deductive manner to a novel situation. Questions testing these skills will often begin with one of the following words: predict, suggest, calculate or determine.

## C EXPERIMENTAL SKILLS AND INVESTIGATIONS

Students should be able to:

1. Use techniques, apparatus and materials (including the following of a sequence of instructions where appropriate),
2. Make and record observations, measurements and estimates,
3. Interpret and evaluate experimental observations and data,
4. Plan and carry out investigations, evaluate methods and suggest possible improvements (including the selection of techniques, apparatus and materials).

## 9. PHYSICS

### **AIMS**

The aims are to:

1. Provide, through well designed studies of experimental and practical science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge
  - 1.1 To become confident citizens in a technological world, to take or develop an informed interest in matters of scientific import;
  - 1.2 To recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life;
  - 1.3 To be suitably prepared for studies beyond the IGCSE level in pure sciences, in applied sciences or in science-dependent vocational courses.
2. Develop abilities and skills that
  - 2.1 Are relevant to the study and practice of Physics;
  - 2.2 Are useful in everyday life;
  - 2.3 Encourage safe practice;
  - 2.4 Encourage effective communication.
3. Develop attitudes relevant to Physics such as
  - 3.1 Concern for accuracy and precision;

- 3.2 Objectivity;
  - 3.3 Integrity;
  - 3.4 Enquiry;
  - 3.5 Initiative;
  - 3.6 Inventiveness.
- 4. Stimulate interest in, and care for, the environment.
  - 5. Promote an awareness that
    - 5.1 Scientific theories and methods have developed, and continue to develop, as a result of co-operative activities of groups and individuals;
    - 5.2 The study and practice of science are subject to social, economic, technological, ethical and cultural influences and limitations;
    - 5.3 The applications of science may be both beneficial and detrimental to the individual, the community and the environment;
    - 5.4 Science transcends national boundaries and that the language of science, correctly and rigorously applied, is universal.

### ***ASSESSMENT OBJECTIVES***

The three assessment objectives in Physics are:

- A Knowledge with understanding
- B Handling information and solving problems
- C Experimental skills and investigations.

A description of each assessment objective follows.

#### **A KNOWLEDGE WITH UNDERSTANDING**

Students should be able to demonstrate knowledge and understanding in relation to:

- 1. Scientific phenomena, facts, laws, definitions, concepts and theories;
- 2. Scientific vocabulary, terminology, conventions (including symbols, quantities and units);
- 3. Scientific instruments and apparatus, including techniques of operation and aspects of safety;
- 4. Scientific quantities and their determination;
- 5. Scientific and technological applications with their social, economic and environmental implications.

The Curriculum Content defines the factual material that candidates may be required to recall and explain. Questions testing these objectives will often begin with one of the following words: define, state, describe, explain or outline.

#### **B HANDLING INFORMATION AND SOLVING PROBLEMS**

Students should be able, in words or using other written forms of presentation (e.g. symbolic, graphical and numerical), to:



1. Locate, select, organise and present information from a variety of sources;
2. Translate information from one form to another;
3. Manipulate numerical and other data;
4. Use information to identify patterns, report trends and draw inferences;
5. Present reasoned explanations for phenomena, patterns and relationships;
6. Make predictions and hypotheses;
7. Solve problems, including some of a quantitative nature.

These skills cannot be precisely specified in the Curriculum Content because questions testing such skills are often based on information, which is unfamiliar to the candidate. In answering such questions, candidates are required to use principles and concepts that are within the syllabus and apply them in a logical, deductive manner to a novel situation. Questions testing these objectives will often begin with one of the following words: predict, suggest, calculate or determine.

### C EXPERIMENTAL SKILLS AND INVESTIGATIONS

Students should be able to:

1. Use techniques, apparatus and materials (including following a sequence of instructions where appropriate);
2. Make and record observations and measurements;
3. Interpret and evaluate experimental observations and data;
4. Plan and carry out investigations, evaluate methods and suggest possible improvements (including the selection of techniques, apparatus and materials).

## GROUP 4 MATHEMATICS

### 10. MATHEMATICS

#### ***AIMS***

The aims are to enable students to:

1. Develop their mathematical knowledge and oral, written and practical skills in a way which encourages confidence and provides satisfaction and enjoyment;
2. Read mathematics, and write and talk about the subject in a variety of ways;
3. Develop a feel for number, carry out calculations and understand the significance of the results obtained;
4. Apply mathematics in everyday situations and develop an understanding of the part which mathematics plays in the world around them;
5. Solve problems, present the solutions clearly, check and interpret the results;
6. Develop an understanding of mathematical principles;
7. Recognize when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem;
8. Use mathematics as a means of communication with emphasis on the use of clear expression;
9. Develop an ability to apply mathematics in other subjects, particularly science and technology;
10. Develop the abilities to reason logically, to classify, to generalise and to prove;
11. Appreciate patterns and relationships in mathematics;
12. Produce and appreciate imaginative and creative work arising from mathematical ideas;
13. Develop their mathematical abilities by considering problems and conducting individual and co-operative enquiry and experiment, including extended pieces of work of a practical and investigative kind;
14. Appreciate the interdependence of different branches of mathematics;
15. Acquire a foundation appropriate to their further study of mathematics and of other disciplines.

#### ***ASSESSMENT OBJECTIVES***

The abilities to be assessed in the IGCSE Mathematics examination cover a single assessment objective, technique with application. The examination will test the ability of candidates to:

1. Organize, interpret and present information accurately in written, tabular, graphical and diagrammatic forms;
2. Perform calculations by suitable methods;
3. Use an electronic calculator;

4. Understand systems of measurement in everyday use and make use of them in the solution of problems;
5. Estimate, approximate and work to degrees of accuracy appropriate to the context;
6. Use mathematical and other instruments to measure and to draw to an acceptable degree of accuracy;
7. Interpret, transform and make appropriate use of mathematical statements expressed in words or symbols;
8. Recognize and use spatial relationships in two and three dimensions, particularly in solving problems;
9. Recall, apply and interpret mathematical knowledge in the context of everyday situations;
10. Make logical deductions from given mathematical data;
11. Recognize patterns and structures in a variety of situations, and form generalisations;
12. Respond to a problem relating to a relatively unstructured situation by translating it into an appropriately structured form;
13. Analyze a problem, select a suitable strategy and apply an appropriate technique to obtain its solution;
14. Apply combinations of mathematical skills and techniques in problem solving;
15. Set out mathematical work, including the solution of problems, in a logical and clear form using appropriate symbols and terminology.

## **11. ADDITIONAL MATHEMATICS**

The Additional Mathematics syllabus is intended for high ability candidates who have achieved or likely to achieve, Grade A\*, A or B in the IGCSE Mathematics examination.

### ***AIMS***

The aims are to enable students to:

1. Consolidate and extend their elementary mathematical skills, and use these in the context of more advanced techniques;
2. Further develop their knowledge of mathematical concepts and principles, and use this knowledge for problem solving;
3. Appreciate the interconnectedness of mathematical knowledge;
4. Acquire a suitable foundation in mathematics for further study in the subject or in mathematics related subjects;
5. Devise mathematical arguments and use and present them precisely and logically;
6. Integrate information technology to enhance the mathematical experience;
7. Develop the confidence to apply their mathematical skills and knowledge in appropriate situations;
8. Develop creativity and perseverance in the approach to problem solving;

9. Derive enjoyment and satisfaction from engaging in mathematical pursuits, and gain an appreciation of the beauty, power and usefulness of mathematics.

### ***ASSESSMENT OBJECTIVES***

The examination will test the ability of candidates to:

1. Recall and use manipulative technique;
2. Interpret and use mathematical data, symbols and terminology;
3. Comprehend numerical, algebraic and spatial concepts and relationships;
4. Recognize the appropriate mathematical procedure for a given situation;
5. Formulate problems into mathematical terms and select and apply appropriate techniques of solution.

Any of the assessment objectives can be assessed in any of the two examination papers.

## GROUP 5 CREATIVE, TECHNICAL AND VOCATIONAL

### 12. COMPUTER STUDIES

#### ***AIMS***

The aims are to:

1. Develop in students an appreciation of the range and power of computer applications;
2. Foster an interest in, enjoyment of, and confidence in the use of computing;
3. Develop students' abilities to solve problems using computing techniques;
4. Develop an awareness in students of the place of computing in society and issues computing raises in society;
5. Provide students with a firm understanding of the basic techniques and knowledge required for computing applications;
6. Foster a desire to use computers within other interests.

#### ***ASSESSMENT OBJECTIVES***

The three assessment objectives in Computer Studies are:

- A Knowledge and understanding
- B Problem-solving and realisation
- C Communication

A description of each assessment objective follows.

#### A KNOWLEDGE AND UNDERSTANDING

Candidates should be able to demonstrate knowledge and understanding of computing, in relation to:

1. The range and scope of information processing applications;
2. The effects of the use of computers, both practical and social;
3. The range of equipment, tools and techniques used to solve problems;
4. The functions of the main hardware and software components of information-processing systems;
5. Appropriate terminology.

#### B PROBLEM-SOLVING AND REALISATION

Candidates should be able to:

1. identify problems within the field of information processing;
2. analyse problems by considering relevant functional, practical, human and economic factors;
3. draw up specifications for the computer-based solutions of problems;

4. Select from a range of resources those which are most suitable for solving problems;
5. Develop solutions using appropriate methods;
6. Implement solutions using equipment, tools and techniques sensibly;
7. Test, evaluate and refine solutions systematically;
8. Document solutions to problems.

### C COMMUNICATION

Candidates should be able to:

1. Interpret and organise information;
2. recognise and present information in a variety of forms;
3. Communicate in appropriate ways information about applications of computers, problems and their solutions.

## **13. INFORMATION TECHNOLOGY**

### ***AIMS***

The aims are to:

1. Help students to develop and consolidate their knowledge, skills and understanding in Information Technology;
2. Encourage students to develop further as autonomous users of Information Technology;
3. Encourage students to continue to develop their Information Technology skills in order to enhance their work in a variety of subject areas;
4. Provide opportunities for students to analyse, design, implement, test and evaluate Information Technology systems;
5. Encourage students to consider the impact of new technologies on methods of working in the outside world and on social, economic, ethical and moral issues;
6. Help students to grow in their awareness of the ways in which Information Technology is used in practical and work-related situations.

### ***ASSESSMENT OBJECTIVES***

The two assessment objectives in Information Technology are:

- A Practical Skills
- B Knowledge and understanding.

A description of each assessment objective follows.

#### A PRACTICAL SKILLS

Students should be able to:

1. Use e-mail and the Internet to gather and communicate information;
2. Use word processing facilities to prepare documents;
3. Use database facilities to manipulate data to solve problems and represent data graphically;
4. Integrate data from different sources into a single document or report;
5. Produce output in a specified format;
6. Use a spreadsheet to create and test a data model, extracting and summarising data;
7. Create a structured website with style sheets, tables and hyperlinks;
8. Create and control an interactive presentation.

#### B KNOWLEDGE AND UNDERSTANDING

Students should be able to demonstrate knowledge and understanding in relation to:

1. The functions of the main hardware and software components of computer systems;
2. The networking of information-processing systems;
3. The ways in which information technology is used and the effects of its use;
4. The stages and methods of system analysis and design;
5. Computing terminology.

### **14. BUSINESS STUDIES**

#### ***AIMS***

The aims are to enable students to:

1. Make effective use of relevant terminology, concepts and methods and recognise the strengths and limitations of the ideas used
2. Apply their knowledge and critical understanding to current issues and problems in a wide range of appropriate contexts
3. Distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements
4. Appreciate the perspectives of a range of stakeholders in relation to the environment, individuals, society, government and enterprise
5. Develop knowledge and understanding of the major groups and organisations within and outside business and consider ways in which they are able to influence objectives, decisions and activities

6. Develop knowledge and understanding of how the main types of business and commercial institutions are organised, financed and operated and how their relations with other organisations, consumers, employees, owners and society are regulated
7. Develop skills of numeracy, literacy, enquiry, selection and employment of relevant sources of information, presentation and interpretation
8. Develop an awareness of the nature and significance of innovation and change within the context of business activities

### ***ASSESSMENT OBJECTIVES***

The four assessment objectives in Business Studies are:

- A Knowledge and understanding
- B Application
- C Analysis
- D Evaluation

A description of each assessment objective follows.

#### **A KNOWLEDGE AND UNDERSTANDING**

Students should be able to:

1. Demonstrate knowledge and understanding of facts, terms, concepts and conventions appropriate to the syllabus;
2. Demonstrate knowledge and understanding of theories and techniques commonly applied to or used as part of business behaviour.

#### **B APPLICATION**

Students should be able to:

3. Apply their knowledge and understanding of facts, terms, concepts and conventions to business problems and issues;
4. Apply their knowledge and understanding of theories and techniques commonly applied to business problems and issues.

#### **C ANALYSIS**

Students should be able to:

5. Distinguish between evidence and opinion in a business context;
6. Order, analyse and interpret information, in narrative, numerical and graphical forms, using appropriate techniques.



**D EVALUATION**

Students should be able to:

7. Present reasoned explanations, develop arguments, understand implications and draw inferences;
8. Make judgements, recommendations and decisions.

**15. ART & DESIGN*****AIMS***

The aims are to stimulate, encourage and develop:

1. Confidence, enthusiasm and a sense of achievement in the practice of Art and Design;
2. An ability to identify and solve problems in visual and tactile form;
3. An ability to record from direct observation and personal experience;
4. The technical competence and manipulative skills necessary to form, compose and communicate in two and three dimensions;
5. Knowledge of a working vocabulary relevant to the subject;
6. The ability to organise and relate abstract ideas to practical outcomes;
7. Experimentation and innovation through the inventive use of materials and techniques;
8. Intuitive and imaginative responses showing critical and analytical faculties;
9. An interest in, and a critical awareness of, environments and cultures.

***ASSESSMENT OBJECTIVES***

The assessment objectives in Art and Design are grouped under the following headings:

**A KNOWLEDGE WITH UNDERSTANDING**

Candidates should be able to:

1. Recognize and render form and structure;
2. Appreciate space and spatial relationships in two and three dimensions and understand space in terms of pictorial organisation;
3. Use chosen media competently, showing clarity of intention and be able to explore surface qualities;
4. Handle tone and/or colour in a controlled and intentioned manner.

**B INTERPRETATIVE AND CREATIVE RESPONSE**

Candidates should be able to:

5. Express ideas visually;
6. Respond in an individual and personal way;
7. Demonstrate quality of idea as seen by interpretation rather than literal description of a theme;
8. Make informed aesthetic judgments.

**C PERSONAL INVESTIGATION AND DEVELOPMENT**

Candidates should be able to:

9. Show personal vision and commitment, through a mature and committed response;
10. Research appropriate resources;
11. Assess a design problem and arrive at an appropriate solution;
12. Show development of ideas through appropriate processes, worksheets, etc, before arriving at a final solution.

## GUIDELINES FOR SELECTION OF SUBJECTS

In furtherance of the aim of this college to offer a balanced curriculum across a wide range of subjects and skills, we offer the **ICE** (**I**nternational **C**ertificate of **E**xamination) option of the IGCSE, which is a group examination in which candidates are required to reach certain standards in a group of subjects in order to gain a certificate.

All candidates for the ICE must enter and sit for at least 7 subjects and must include:

TWO (different) subjects from GROUP 1(LANGUAGES)

- ONE subject from each of groups 2,3,4 and 5
- SEVENTH subject from any of the 5 IGCSE syllabus groups

Accordingly, the school's policy for subject selection is as follows

- First Language English, Foreign Language French\*, Literature, Mathematics and Computer Studies OR Information Technology are compulsory for all students.
- At least one subject should be chosen from Group 3(Sciences).
- Students are to offer a minimum of 8 subjects (including the compulsory ones)
- Students **may** offer a maximum of 10 subjects, depending on timetabling constraints.

STUDENTS WITHOUT ANY BACKGROUND IN FRENCH ARE EXEMPTED FROM OFFERING FOREIGN LANGUAGE FRENCH