YEAR 11		Description	Levels covered	Skills & content covered	Skills & content revisited
COMPUTING					
AUTUMN 1	Programming	Revisit of main concepts. Finish main theory section on high level to machine code and use of compilers.		(c) explain the difference between high level code and machine code (d) explain the need for translators to convert high level code to machine code (e) describe the characteristics of an assembler, a compiler and an interpreter (f) describe common tools and facilities available in an integrated development environment (IDE): editors, error diagnostics, run-time environment, translators, auto-documentation.Handling data in algorithms Candidates should be able to: (j) define the terms variable and constant as used in an imperative language (k) use variables and constants (l) describe the data types integer, real, Boolean, character and string (m) select and justify appropriate data types for a given program (n) perform common operations on numeric and Boolean data (o) use one-dimensional arrays. Testing Candidates should be able to: (p) describe syntax errors and logic errors which may occur while developing a program (q) understand and identify syntax and logic errors (r) select and justify test data for a program, stating the expected outcome of each test	Creation of and testing of algorithms based on a particular problem.
AUTUMN 2	Programming Unit A453. Preparation for PPE.			Candidates should be able to: (a) identify and use variables, operators, inputs, outputs and assignments (b) understand and use the three basic programming constructs used to control the flow of a program: Sequence; Conditionals; Iteration (c) understand and use suitable loops including count and condition controlled loops (d) use different types of data including Boolean, string, integer and real appropriately in solutions to problems (e) understand and use basic string manipulation (f) understand and use basic file handling operations: open, read, write and close (g) define and use arrays as appropriate when solving problems.	Revise and practise exam questions on all topics. ICT systems, Software, Hardware, Representation of Data, Databases, Networks, Programming

SPRING 1	Programming Unit A453	Carrying out project under controlled conditions		Candidates should be able to: (a) develop a solution to the identified problem using a suitable programming language (b) demonstrate testing and refinement of the code during development (c) explain the solution using suitable annotation and evidence of development. Test their solution Candidates should be able to: (a) use a suitable test plan and data to test the function of the system (b) test the system against the success criteria (c) provide good evidence of test procedures (d) modify the system, if required, to meet success criteria where these are not met (e) evaluate the system against the success criteria to establish how successful, or otherwise, their implementation has been.	Programming practise.
SPRING 2	Revision and exam preparation	Revision of theory content.		Revisit topics covered from Year 9 with exam practise. Diagnostics for each student.	Revise and practise exam questions on all topics. ICT systems, Software, Hardware, Representation of Data, Databases, Networks, Programming
SUMMER 1	REvision and exam preparation	Revision of theory content.		Revisit topics covered from Year 9 with exam practise. Diagnostics for each student.	Revise and practise exam questions on all topics. ICT systems, Software, Hardware, Representation of Data, Databases, Networks, Programming