

ST. MONTFORT'S SENIOR SECONDARY SCHOOL	
SYLLABUS OF CLASS-XII (SCIENCE), FOR SESSION 2023 - 24	
1	SUBJECT: ENGLISH CORE (Code: 301)
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	FLAMINGO (Poetry) : My Mother at Sixty - six
	FLAMINGO (Prose) : The Last Lesson, The Lost Spring
	VISTAS (Prose) : The Third Level
	FLAMINGO (Poetry) : Keeping Quiet
	FLAMINGO (Prose) : Deep water
	VISTAS (Prose) : The Tiger King
	GRAMMAR : General grammar
	COMPOSITION : Notice / Formal and informal invitation and reply
	COMPREHENSION : Unseen
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	COMPOSITION : Letter (based on verbal / visual)
	COMPREHENSION : Unseen
	FLAMINGO (Prose) : The Rat Trap, Indigo
	VISTAS (Prose) : The Journey to the End of the Earth
	VISTAS (Poetry) : A Thing of Beauty
	VISTAS (Prose) : The Enemy
	FLAMINGO (Prose) : Poets and Pancakes
	FLAMINGO (Poetry) : Aunt Jennifer's Tiger
	GRAMMAR : General grammar
	COMPREHENSION : Unseen
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
2.1	SUBJECT: PHYSICS (Code: 042) THEORY
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	ELECTRIC CHARGES & FIELDS
	ELECTROSTATIC POTENTIAL AND CAPACITANCE
	CURRENT ELECTRICITY
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	ALTERNATING CURRENT
	MOVING CHARGES AND MAGNETISM
	MAGNETISM AND MATTER
	ELECTRO MAGNETIC INDUCTION
	ELECTROMAGNETIC WAVES
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
2.2	SUBJECT: PHYSICS PRACTICAL

MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	TO DETERMINE RESISTIVITY OF TWO WIRES BY PLOTTING A GRAPH FOR POTENTIAL DIFFERENCE VS CURRENT
	TO FIND RESISTANCE OF A GIVEN WIRE USING METER BRIDGE
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	TO VERIFY THE LAWS OF COMBINATION OF RESISTANCE USING A METER BRIDGE
	TO DETERMINE THE INTERNAL RESISTANCE OF A GIVEN CELL BY POTENTIOMETER
	TO CONVERT THE GIVEN GALVANOMETER INTO A VOLTMETER OF DERIVED RANGE
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
3.1	SUBJECT: CHEMISTRY (Code: 043) THEORY
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	CH 2 : SOLUTIONS
	CH 3: ELECTROCHEMISTRY
	CH 4 : CHEMICAL KINETICS
	CH 8 : THE d- BLOCK AND f- BLOCK ELEMENTS
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	CH 8 : THE d- BLOCK AND f- BLOCK ELEMENTS
	CH 9 : COORDINATION COMPOUNDS
	CH 10 : HALOALKANES AND HALOARENES
	CH 11 : ALCOHOLS, PHENOLS AND ETHERS
	CH 12 : ALDEHYDES, KETONES AND CARBOXYLIC ACID
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
3.2	SUBJECT: CHEMISTRY PRACTICAL
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	TO STUDY THE VARIATION OF CELL POTENTIAL IN $Zn / Zn^{2+} // Cu^{2+} / Cu$ CELL WITH CHANGE IN CONCENTRATION OF ELECTROLYTES ($CuSO_4$ AND $ZnSO_4$) AT ROOM TEMPERATURE
	DETERMINE THE ENTHALPY OF NEUTRALISATION OF HYDROCHLORIC ACID AND NaOH SOLUTION
	TO STUDY THE EFFECT OF CONCENTRATION ON THE RATE OF REACTION BETWEEN SODIUM THIOSULPHATE AND HCl ACID
	TO STUDY THE REACTION RATE OF REACTION OF IODIDE IONS WITH HYDROGEN PEROXIDE AT DIFFERENT CONCENTRATION OF IODIDE IONS
	TO PREPARE A PURE SAMPLE OF POTASS ALUM (FITKARI)
	PREPARATION OF POTASSIUM FERRIC OXALATE
	TO PREPARE AN ORGANIC COMPOUND (ANILINE, DIBENZALACETONE, P-NITRO ACETANILIDE OR 2-NAPHTHOL ANILINE DYE)
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	PREPARE M/40 SOLUTION OF OXALIC ACID. WITH ITS HELP DETERMINE THE MOLARITY AND STRENGTH OF THE GIVEN SOLUTION $KMnO_4$
	DETERMINE THE NO. MOLECULES OF WATER OF CRYSTALLIZATION IN A SAMPLE OF MOHR'S SALT, () PROVIDED 0.01M $KMnO_4$

	TO DETECT THE PRESENCE OF CARBOHYDRATES, FATS AND PROTEIN IN THE FOLLOWING FOOD STUFFS : GRAPES, POTATOES, RICE, BUTTER, BISCUITS, MILK, GROUNDNUT, BOILED EGGS.
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
4.1	SUBJECT: BIOLOGY (Code: 044) THEORY
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	Chapter 3: Human Reproduction
	Chapter 4: Reproductive Health
	Chapter 5: Principles of Inheritance and Variation.
	Chapter 8: Human Health and Diseases.
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	Chapter 7: Evolution
	Chapter 11: Biotechnology: Principles and Processes.
	Chapter 12: Biotechnology and its Applications.
	Chapter 13: Organisms and Populations.
	Chapter 14: Ecosystem.
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
4.2	SUBJECT: BIOLOGY PRACTICAL
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	SPOTTING : TS OF TESTIS
	TS OF OVARY
	MEIOSIS IN ONION BUD CELL
	COMMON DISEASE CAUSING ORGANISM LIKE ASCARIS, ENTAMOEBA, PLASMODIUM, ANY FUNGUS CAUSING RINGWORM.
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	STUDY THE PLANT POPULATION DENSITY BY QUADRAT METHOD
	STUDY THE PLANT POPULATION FREQUENCY BY QUADRAT METHOD
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
5	SUBJECT: MATHEMATICS (Code: 041)
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	RELATIONS AND FRACTIONS
	INVERSE TRIGONOMETRIC FUNCTIONS
	MATRICES
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	DETERMINANTS
	CONTINUITY AND DIFFERENTIABILITY
	APPLICATIONS OF DERIVATIVES
	INTEGRALS
	MATHS ACTIVITY
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
6	SUBJECT: PHYSICAL EDUCATION (Code: 048)
MONTHS	UNIT/TOPIC/CONTENT

MARCH, APRIL, MAY	Unit 1: Management of Sporting Events
	Unit 2: Children and Women in Sports
	Unit 3: Yoga as Preventive Measure for lifestyle Disease
	Yoga (Practical)
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	Unit 4: Physical Education And Sports for CWSN
	Fitness Test: SAI Khelo India
	Unit 5: Sports and Nutrition
	Unit 6: Test, Measurement in Sports
	Viva Voce (Health, Games / Sports, Yoga)
	Record File
	Practical Test
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
7.1	SUBJECT: COMPUTER SCIENCE (Code: 083)
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	Ch 1 Revision Python
	Ch 3 Functions
	Ch 4 File Handling
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	Ch 5 Data Structure: Stack
	Ch 6 Computer Networks I
	Ch 7 Computer Networks II
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
7.2	SUBJECT: COMPUTER SCIENCE (Code: 083) PRACTICAL
MONTHS	UNIT/TOPIC/CONTENT
MARCH, APRIL, MAY	Write a function that returns the greater of two numbers.
	Write a random number generator that generates random numbers between 1 and 6 (Stimulates a dice).
	Read a text file line by line and display each word separated by a #.
	Read a text file and display the number of vowels / consonants / uppercase / lowercase characters in a file.
	Create a bin file with name and roll number. Search for a given roll no. and update the marks.
	Remove all the lines that contain a character from a file.
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	Implement a stack and queue using a list data - structure
	Take a sample of ten phishing E - mails and find most commonly occurring words.
	Write the code for push (Roll no.) and pop () percentage obtained.
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	
8	SUBJECT: I.T. (Code: 802)
MONTHS	UNIT/TOPIC/CONTENT

MARCH, APRIL, MAY	ICT IV
	Java
	Communication Skill
	Green Skill IV
	Self Management Skill IV
FIRST MID - TERM SYLLABUS (PORTIONS FROM MARCH - MAY)	
JUNE, JULY, AUGUST	Operating Web - based application
	RDBMS
	Practical File
HALF YEARLY SYLLABUS (PORTIONS FROM MARCH - AUGUST)	