## YEAR 13 Batch 1 & 2 - BIOLOGY

### WEEK 6 (4<sup>th</sup> Oct - 8<sup>th</sup> Oct)

### Work sent to students through Class Bio Whats App Group /Google Classroom

### **Topic 7.3:- Gene Technology**

**L.O** – Describe how genetically modified organisms (micro organisms and animals) can be produced .Discuss the risks and benefits associated with the use of GM organisms

#### **Biology Students Book 2**

	Students able to
<b>B2 - Sunday</b> – 6 <sup>th</sup> & 7 <sup>th</sup>	• Outline the key steps involved in producing GM insulin using E.
Period (Zoom)	Coli.
	• Compare GM insulin production using reverse transcriptase with
<b>B1- Monday –2<sup>nd</sup> Period</b>	E. Coli method.
(Zoom)	•Describe the use of microinjection, micro projectile & liposome
	wrapping technique in producing GM animals.
<b>B1 -Tuesday – 4th Period</b>	
(Zoom)	<b>Resources:</b> PowerPoint – Genetic engineering ,Board works – gene
	technology & Video link
	https://www.youtube.com/watch?v=BK12dQq4sJw
	https://www.youtube.com/watch?v=5Ryb7ZLJSh0
	Students to complete text book questions
	Pg.126 Q.1-3
<b>B1-</b> Monday – 1 <sup>st</sup> Period	Assessment via Google forms - 20 marks
B1- Monday – 1 <sup>st</sup> Period (Zoom)	Assessment via Google forms - 20 marks
B1- Monday – 1 <sup>st</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday – 3 <sup>rd</sup> Period	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to •Compare gene expression in prokaryotes & eukaryotes
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to •Compare gene expression in prokaryotes & eukaryotes • Identify epigenetic mechanisms
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to •Compare gene expression in prokaryotes & eukaryotes • Identify epigenetic mechanisms •Role of epigenetic in development & differentiation in organisms.
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to •Compare gene expression in prokaryotes & eukaryotes • Identify epigenetic mechanisms •Role of epigenetic in development & differentiation in organisms.
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to •Compare gene expression in prokaryotes & eukaryotes • Identify epigenetic mechanisms •Role of epigenetic in development & differentiation in organisms. Students to turn in text book questions on stem cells in GC
B1- Monday – 1 <sup>st</sup> Period (Zoom) B2 - Monday– 3 <sup>rd</sup> Period (Zoom)	Assessment via Google forms - 20 marks Topic 7.2- Gene expression & Epigenetics Text Book pg.108-112,114&115 Students able to •Compare gene expression in prokaryotes & eukaryotes • Identify epigenetic mechanisms •Role of epigenetic in development & differentiation in organisms. Students to turn in text book questions on stem cells in GC

# YEAR 13 Batch 1 & 2 - BIOLOGY

WEEK 6 (4th Oct - 8th Oct)

Work sent to students through Class Bio Whats App Group /Google Classroom

Topic 6-Microbiology and pathogens [6.1.2-Measuring the growth of bacterial cultures]

**L.O-** Understand the different methods of measuring the growth of bacterial cultures as illustrated by cell counts, dilution plating, mass and optical methods (turbidity)

**Biology Students Book 2** 

B1- Tuesday – 3rd period	Students able to
(Zoom)	•Measure the changes in the bacterial culture and the growth
	in the population
B2- Sunday – 0 period	•Analyse the cell count method using haemocytometer
(Zoom)	
	www.science.co.uk/biology/culture techniqueshtml,
	www.internet4classrooms.com
	Video and ppt- Basic aseptic techniques used in culturing
	microorganisms
	Resources and advice on cultures of bacteria can be found
	online, including guides to identifying colony types. Try
	searching for 'observing microbes'
	Text Book Page Numbers – 47-48
	Worksheet – Microbial techniques
	Students able to-
D1 Thursdoy 5th	• Explain the different method of measuring bacterial growth
B1- Inursuay – Sui	of bacterial cultures by dilution plating mass and optical
andomperiod(200m)	methods(turbidity)
B2 - Monday – 8th &	•Analyse and evaluate the advantages and disadvantages of
Thursday 7 <sup>th</sup> period	optical methods and dilution plating.
(Zoom)	www.science.co.uk/biology/culture techniqueshtml,
()	www.internet4classrooms.com
	Video and ppt- Basic aseptic techniques used in culturing microorganisms
	Resources and advice on cultures of bacteria can be found
	online, including guides to identifying colony types. Try
	searching for 'observing microbes'
	Text Book Page Numbers – 48 -49
	Workshoot Migrapial taghniques
	wurksneet – witcrubiar techniques