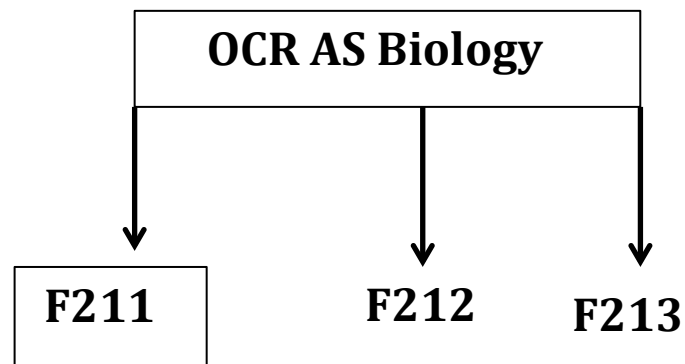


OCR AS GCE Biology A (H021)



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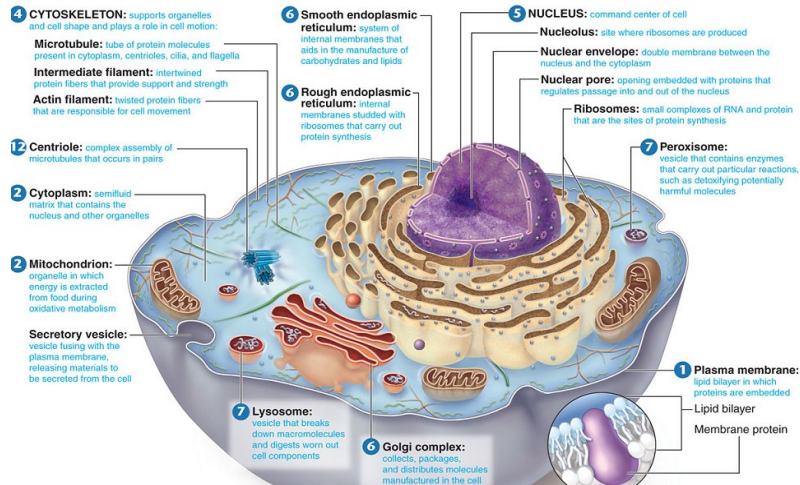
Unit F211: Cells, Exchange and Transport	Paper code: F211 QP																																	
1. Exam paper- Unit F211: Cells, Exchange and Transport Thursday 21 st May 2015 PM – 1 hour	15 % of Advanced GCE Biology																																	
Overview of content																																		
<ol style="list-style-type: none"> 1. Module 1: Cells 2. Module 2: Exchange and Transport 																																		
Overview of assessment																																		
<ol style="list-style-type: none"> 1. The unit is assessed through a 1-hour examination paper set and marked by OCR. 2. The total number of marks is 60. 3. Grades A–E are available. 4. Grades assessment by year: <table border="1" data-bbox="443 969 1214 1402"> <thead> <tr> <th>Year</th> <th>Raw Marks to 90 % UMS - A*</th> <th>Raw Marks to 80 % UMS grade 'A'</th> </tr> </thead> <tbody> <tr><td>Jan 2010</td><td>-</td><td>40</td></tr> <tr><td>Jun 2010</td><td>-</td><td>41</td></tr> <tr><td>Jan 2011</td><td>-</td><td>42</td></tr> <tr><td>Jun 2011</td><td>-</td><td>45</td></tr> <tr><td>Jan 2012</td><td>-</td><td>43</td></tr> <tr><td>Jun 2012</td><td>-</td><td>44</td></tr> <tr><td>Jan 2013</td><td>-</td><td>44</td></tr> <tr><td>Jun 2013</td><td>-</td><td>43</td></tr> <tr><td>Jun 2014</td><td>-</td><td>45</td></tr> <tr><td>Jun 2015</td><td>?</td><td>?</td></tr> </tbody> </table> 		Year	Raw Marks to 90 % UMS - A*	Raw Marks to 80 % UMS grade 'A'	Jan 2010	-	40	Jun 2010	-	41	Jan 2011	-	42	Jun 2011	-	45	Jan 2012	-	43	Jun 2012	-	44	Jan 2013	-	44	Jun 2013	-	43	Jun 2014	-	45	Jun 2015	?	?
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OCR AS GCE Biology A

AS unit F211: *Cells, Exchange and Transport*

Module 1: *Cells*

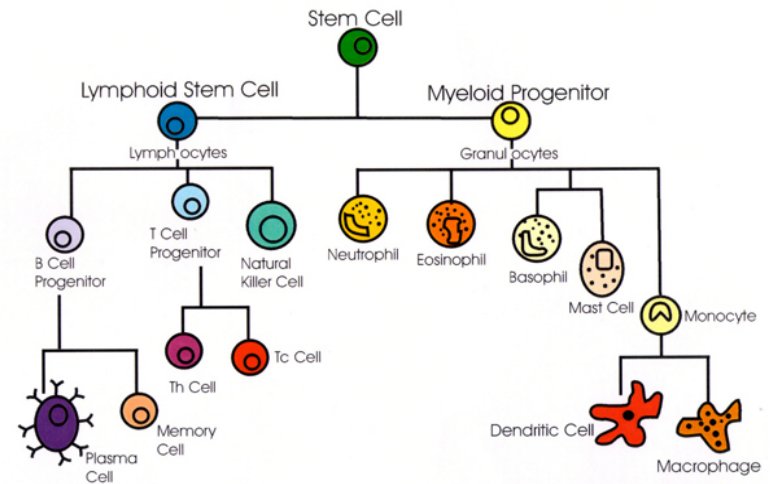
Cell structure Cell membrane Cell Division, Cell Diversity and Cellular Organisation



Module 2: *Exchange and Transport*

Biological Molecules Food and Health Biodiversity and Evolution

Cells of the Immune System



How BioChem Tuition prepares their students for F211: *Cells, Exchange and Transport*?

BioChem Tuition has a three-pronged strategy to attack F211 that helps students to attain A or A*.

1. **Detailed F211 knowledge:** The students will study the specification of OCR F211 alongside extensive practice of examination style questions to help them retain the content of the specification. The students will receive detailed F211 notes prepared by BioChem Tuition. This is accompanied by practice of examination style questions to gauge the student's level of understanding of the topic.

Key features

- ✓ F211 specification notes.
 - ✓ F211 examination style past examination questions.
 - ✓ 1-2-1 help in understanding the key examiner points.
 - ✓ Revision notes and charts to aid revision.
2. **Practice OCR past examination papers (2001-2014):** The students will complete at least 14 years of OCR past exam papers. BioChem Tuition will provide all the past papers in printed form to the students. Candidates are required to complete past papers, which are checked and marked in light of the official examiner report and mark scheme in the presence of the student. Any mistakes will be followed up to ensure the mistakes are not repeated. The students will be shown how to maximise their marks by following our exam technique and also methods to improve comprehension for scientific questions.

Key features

- ✓ 14 years of past examination papers practice.
 - ✓ 1-2-1 help in understanding the exam technique.
 - ✓ Revisit the mistakes and practice relevant questions to ensure the mistakes are not repeated.
 - ✓ Past paper practice can be extended by solving F211 style questions from AQA, CIE and Edexcel exam boards.
3. **Mock examination practice:** Mock F211 examination practice to give student feedback on the likely grade achievable in the exams.

Key features

- ✓ Mock examination practice to simulate exam experience, which will be marked, graded and feedback on mistakes provided.

How To Achieve Grade 'A' or 'A*'
F211: *Cells, Exchange and Transport*

Intensive tutoring	Past papers practice (2001-2014)	Mock examination practice
1. Cover F211 Specification 2. Practice examination style questions	1. Solve F211 past papers. 2. Revisit the mistakes/revise topics	1. Solve mock examination papers to prepare for the exam

F211 Tuition Plan

Tuition Plan for F211: Cells, Exchange and Transport	
Stage 1: Specification Topics	Tuition time
Module 1: <i>Cells</i>	12 hours
1.1 Cell structure <ul style="list-style-type: none"> • Ultrastructure of the cell • Resolution and magnification • Light Microscopy and electron microscopy • Prokaryotic and Eukaryotic Structures • Interrelationship between organelles 	6 hour
1.2 Cell Membranes <ul style="list-style-type: none"> • Biological membranes – Fluid Mosaic Model • Roles and function of membranes. • Communication and cell signaling. • Diffusion, active transport, osmosis and Cell cycle • Mitosis, Cell cycle, Stem cells, budding in yeast • Cell specialization and Meiosis (briefly) • Differentiation and organization 	
<ul style="list-style-type: none"> • Practice of past examination style questions on Cells. 	6 hours
Module 2: <i>Exchange and Transport</i>	18 hours
2.1 Exchange surfaces and breathing <ul style="list-style-type: none"> • Gas exchange, surface area to volume ratio. • Respiratory system – Inspiration and expiration • Tissues in the lungs. • Measuring lung capacity. 	2 hours

<p>2.2 Transport in animals</p> <ul style="list-style-type: none"> • Circulatory system – Single and double • Structure of mammalian heart • Cardiac cycle and its control • Blood vessels, tissue fluid and lymph • Carriage of carbondioxide and oxygen 	
<p>2.3 Transport in plants</p> <ul style="list-style-type: none"> • The need for transport systems in plants. • Xylem and phloem tissues. • Transport of water across the roots. • Tansport of water up the stem. • Transpiration. • Xerophytes and movement of sugars. 	6 hours
<ul style="list-style-type: none"> • Practice of past examination style questions on <p style="text-align: center;">Exchange and Transport</p>	10 hours
Stage 2: Past paper practice	
<ul style="list-style-type: none"> • Practice of past examination papers from 2001 to 2014 relevant to F211: Cells, Exchange and Transport <ul style="list-style-type: none"> ✓ 14 years of past examination papers practice. ✓ 1-2-1 help in understanding the exam technique. ✓ Revisit the mistakes and practice relevant questions to ensure the mistakes are not repeated. ✓ Past paper practice can be extended by solving F211 style questions from other exam boards such as AQA, CIE and Edexcel. 	10 hours

Stage 3: <i>Mock examination practice</i>	4 hours
<ul style="list-style-type: none">• Mock examination practice to simulate exam experience, which will be marked, graded and feedback on mistakes provided by BioChem Tutors.	4 hours