

| Subject                                | Further Mathematics |                    |                   |                            |
|--|---------------------|--------------------|-------------------|----------------------------|
| Title/Topic                            |                     | Format             | Length            | Date                       |
| Paper 1 – Core Pure                    |                     | Written exam paper | 1 hour 15 minutes | Wed 31 August<br>11.00am   |
| Paper 2 – Mechanics                    |                     | Written exam paper | 1 hour 15 minutes | Thu 1 September<br>9.00am  |
| Paper 3 – Modelling<br>with Algorithms |                     | Written exam paper | 1 hour 15 minutes | Fri 2 September<br>11.00am |

| In this assessment the topics I will be assessed on are |   |  |  |  |
|---|---|--|--|--|
| Paper 1 – Pure Maths                                    | Paper 2 – Mechanics                       |  |  |  |
|   |   |  |  |  |
| Modulus-argument form of complex                        | Momentum and impulse treated as vectors;  |  |  |  |
| numbers   | concepts of work and energy               |  |  |  |
|   | Forces, friction                          |  |  |  |
| Summation of series; proof by induction                 | Centre of mass                            |  |  |  |
|   | Equilibrium of a particle                 |  |  |  |
| Linear transformations and their associated             | Equilibrium of a rigid body, couple       |  |  |  |
| matrices  | Direct impact, Newton's experimental law  |  |  |  |
|   | The work-energy principle, power;         |  |  |  |
| Relations between the roots and                         | dimensional consistency                   |  |  |  |
| coefficients of polynomial equations                    |   |  |  |  |
|   | Paper 3 – Modelling with Algorithms       |  |  |  |
| Simultaneous equations; inverses of square              |   |  |  |  |
| matrices  | Dijkstra's algorithm;                     |  |  |  |
|   | Critical path analysis                    |  |  |  |
| Arithmetic of complex numbers                           | Algorithms                                |  |  |  |
|   | Formulating a linear programming problem, |  |  |  |
| Angle between planes; parallel vectors                  | simplex method, non-standard form         |  |  |  |
| The Argand diagram                                      | Prim's algorithm                          |  |  |  |
|   | Networks and graphs                       |  |  |  |
|   | Network flows; solving network problems   |  |  |  |
|   | using technology; use of software         |  |  |  |
|   |   |  |  |  |
|   |   |  |  |  |
|   |   |  |  |  |
|   |   |  |  |  |



## What should I do to revise and prepare for this assessment?

To prepare for this assessment:

- 1. Attempt the practice exam papers provided to you by your teacher.
- 2. Review the QLA from the Lent mock exams and your Pentecost assessments to identify the topics that you need to spend more time on.
- 3. Review your exercise books and classwork from this year.
- 4. Complete and re-attempt the unit tests from integral.
- 5. Practice questions from your text book.
- 6. Review your class-based topic assessments completed so far this year.

## What useful websites/resources could I use to help me prepare?

https://integralmaths.org/

http://www.mathsgenie.co.uk/alevel.html

s-cool.co.uk/a-level/maths

revisionworld.co.uk/a2-level-level-revision/maths

schoolworkout.co.uk/a level.htm

mathsCentre.ac.uk