

## Unit 5: Special Functions

### Links

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Class 1	Gamma function, definition and properties:	<a href="https://jekyll.math.byuh.edu/courses/m321/handouts/gamma_properties.pdf">https://jekyll.math.byuh.edu/courses/m321/handouts/gamma_properties.pdf</a>
Class 2	Beta function, definition and properties:	<a href="https://brilliant.org/wiki/beta-function/">https://brilliant.org/wiki/beta-function/</a>
Class 3	Relationship between beta gamma functions and duplication formula:	<a href="https://www3.nd.edu/~nancy/Math30530/Info/beta.pdf">https://www3.nd.edu/~nancy/Math30530/Info/beta.pdf</a>
Class 4	Problems on beta, gamma functions:	<a href="https://www.youtube.com/watch?v=k1zQqG-xSzs">https://www.youtube.com/watch?v=k1zQqG-xSzs</a>
Class 5	Series solution of Bessel differential equation and Bessel function.	<a href="http://cda.mrs.umn.edu/~mcquarrb/teachingarchive/M2401/Math/BesselFunctions.pdf">http://cda.mrs.umn.edu/~mcquarrb/teachingarchive/M2401/Math/BesselFunctions.pdf</a>
Class 6	Recurrence relations	<a href="https://theengineeringmaths.com/wp-content/uploads/2017/11/bessels-3.pdf">https://theengineeringmaths.com/wp-content/uploads/2017/11/bessels-3.pdf</a>
Class 7	Problems on Recurrence relations	<a href="https://theengineeringmaths.com/wp-content/uploads/2017/11/bessels-3.pdf">https://theengineeringmaths.com/wp-content/uploads/2017/11/bessels-3.pdf</a>
Class 8		<a href="https://www.math.ust.hk/~machiang/150/Intro_bessel_bk_Nov08.pdf">https://www.math.ust.hk/~machiang/150/Intro_bessel_bk_Nov08.pdf</a>
Class 9	Generating functions	<a href="https://www.math.ust.hk/~machiang/150/Intro_bessel_bk_Nov08.pdf">https://www.math.ust.hk/~machiang/150/Intro_bessel_bk_Nov08.pdf</a>
Class 10	Orthogonal property	<a href="https://theengineeringmaths.com/wp-content/uploads/2017/11/bessels-3.pdf">https://theengineeringmaths.com/wp-content/uploads/2017/11/bessels-3.pdf</a>