

إمتحان الفصل الدراسي الثاني ٢٠٢٠ م  
الفرقة : الثالثة كيمياء + فيزياء  
المادة : معادلات تفاضلية ودوال خاصة



جامعة كفر الشيخ  
كلية العلوم  
قسم الرياضيات

تناول بالبحث في أحد الموضوعات التالية :

- 1 – Partial differential equation of power one – Relation between Beta and Gamm functions .
- 2 – Elementing arbitrary constants to get partial differential equation – Legendres polynomials .
- 3 – Solution of differential equation by using of series – Legendrs differential equation .
- 4 – The methods of Taylor series – orthogonal properties of  $P_n(x)$  .
- 5 – The concept of general – Particular solution – Gamm and B – function .
- 6 – The method of forbenius – expansion of function in series of Legenders polynomials .
- 7 – Bsel equation – Hermites polynomial and functions .
- 8 – Method of solving initial value problems – Series of Hermiters ploynomials .
- 9 – Classification of equations and boundary condition – series solution about an ordinary point .
- 10 – Finding solutions by using Laplace transformation – Neumann function .

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