



معهد هندسة و تكنولوجيا الطيران

First Semester 2019-2020 Mid – Term exam

Answer All questions Time: 1 Hour Math IV: 3rd Year Aer. and Comm. Eng.

(1) Find the integrals: (a) $\int_0^{\infty} x^8 e^{-2x^3} dx$

(b) $\int_0^3 \frac{1}{\sqrt{3y-y^2}} dy$

(2) Solve the PDE: (a) $3u_{yy} - 4u_{xy} + u_{xx} = 0$

(b) $u_{xx} - 2u_{xy} = (xy)^2$

(c) $3u_x - 4u_y = 35x$

Good Luck

Dr. Mohamed Eid