# Question Paper: Maths

Total Marks: 100

Time: 3 Hours

Instructions:

1. Attempt all questions

2. Read each question carefully before answering

**1.** find the volume of the solid generated by rotating y = sqrt(x) around the x-axis from x = 0 to x = 4." *[10 Marks]*

**2.** if A and B are independent events with P(A) = 0.4 and P(B) = 0.5, find P(A ∩ B)." *[10 Marks]*

**3.** find the determinant of the matrix: [[2, 3], [4, 5]]." *[10 Marks]*

**4.** if z = 3 + 4i, find |z|." *[10 Marks]*

**5.** A bank offers 5% annual interest, compounded yearly. If you invest $1000, how much will you have after 3 years? *[10 Marks]*