

College Name: _____

Student Name: _____ Seat No: _____

Copy No: _____

KARACHI UNIVERSITY BUSINESS SCHOOL
UNIVERSITY OF KARACHI
FINAL EXAMINATION JUNE 2015; AFFILIATED COLLEGES
BUSINESS MATHEMATICS; BA (M)-531 (PART b)
MBA – I

Date: June 19, 2015

Max Time: 1.5 Hrs

Max Marks: 30

INSTRUCTIONS:

1. Attempt any 5 questions. Do not write anything on the question paper.
2. Mobile phones or any other communicating device will not be allowed in the examination room. Students will have to remove the batteries of these devices before entering the examination hall.

Q.1. Solve $x^2 \ln x^2 - 5x \ln x = 12 \ln x$

Q.2. A university Cricket team has to play a *Twenty,20* match with other team, the other team has agreed to play the game for guaranteed fee of Rs. 400,000 plus 20% of gate receipts, assume that the ticket price is Rs. 50.

(i) How many tickets must be sold in order to get Zero profit.

(ii) If 40,000 tickets must be sold, what ticket price would allow the university to earn the profit Rs. 800, 000/=.

Q.3. Solve the system graphically

$$\begin{aligned}x + y &= -1 \\3x + 5y &= 1 \\x - y &= -5\end{aligned}$$

Q.4. Determine derivative of $f(x)$, using limit approach if $f(x) = \frac{1}{x^3 + 1}$

Q.5. Find $f'(x)$, $f''(x)$ if $f(x) = \frac{x^3 - x}{e^{5x}}$

Q.6. Integrate $\int x^2 \ln x \, dx$

END OF EXAM PAPER