St. Mira's College for Girls,
(Autonomous-Affiliated to SavitribaiPhule Pune University)
Class: FYBCOM
Subject: Banking and Finance
Subject Code: AC11507
SEM I
(2017-18)

Unit 4: Mathematics in Banking
Skill Development - mathematical ability leading to decision making relating to home loans and its impact on one's finances

ST MIRA'S COLLEGE FOR GIRLS, PUNE
(Autonomous - Affiliated to Savitribai Phule Pune University)
CLASS: F.Y.B.Com/ F.Y.B.A.
SEMESTER: I (2017-2018)
SUBJECT: Banking and Finance
TITLE: Fundamentals of Banking
Flexi Test II
Set 3

Name: Roopa Varma
Date: 24/11/17

Roll No.: 3016 A
Total Marks: 10

1. Mr. Kareem has borrowed a housing loan of Rs. 75,00,000 (75 lacs.) from Bank of Baroda for a period of 25 years @ 12.5% p.a. Calculate the Equated Monthly Installment on his loan.

$P = 7500000$
$n = 25$ years (300 Installment)
$R = 12.5\%$

$$EMI = \frac{P\left(1+\frac{R}{400}\right)^{\frac{n}{3}}}{\left(1+\frac{1200}{R}\right)\left[\left(1+\frac{R}{400}\right)^{\frac{n}{3}}-1\right]}$$

$$EMI = \frac{7500000\left(1+\frac{12.5}{400}\right)^{\frac{300}{3}}}{\left(1+\frac{1200}{12.5}\right)\left[\left(1+\frac{12.5}{400}\right)^{\frac{300}{3}}-1\right]}$$

$$EMI = \frac{7500000\left(\frac{400+12.5}{400}\right)^{100}}{\left(\frac{12.5+1200}{12.5}\right)\left[\left(\frac{400+12.5}{400}\right)^{100}-1\right]}$$

$$EMI = \frac{7500000\left(\frac{412.5}{400}\right)^{100}}{\left(\frac{1212.5}{12.5}\right)\left[\left(\frac{412.5}{400}\right)^{100}-1\right]}$$

$$EMI = \frac{7500000\left(1.03125\right)^{100}}{97\left[\left(1.03125\right)^{100}-1\right]}$$

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Principal Incharge
St. Mira's College for Girls