Modern Education Society's

NESS WADIA COLLEGE OF COMMERCE, PUNE 1

B ~~M~~.COM. 4980

Assignment Sheet

Name : Adhiti Omprakash Roll No.: 1

Class : F.Y. BCOM Subject : E-COMMERCE

Date : 30/9/19 Marks : 3/5

Name & Sign of Subject Teacher

Writing Space

MODERN PAYMENT SYSTEMS

Modern payment systems run on electronic transactions which are much quicker to reconcile, batch and collect upon over cash based systems. Faster internet connection and updated system technology make ~~e-commerce~~ e-transactions speedier.

Complete Payment Flexibility,
Revolutionary Pricing,
Get Paid Faster,
Lower Operational Costs,
Access to Premium Payment Services.

Modern systems make shifting to EMV, accessing advanced security features and updating your payment devices a breeze These enhancements include:

- Remote EMV Firmware Updates: A payment specialist will automatically push the latest

firmware release to each device remotely.

- Remote Key Injection: Make transition to a new processor easier by having your payment devices remotely re-keyed.
- Advanced PCI: Make PCI compliance easier with personalized PCI guidance.

NEED OF E-PAYMENTS

- Electronic payment systems entail online transactions that utilize some form of digital, financial device such as e-tokens, e-cash, cheques.
- They offer a variety of payment options to their customers.
- It includes ATMs, mobile banking, ~~paytm~~ payment of bills through phone.
- Customers also save on time spent in dealing with personal transactions as in traditional payment systems.
- E-payment system offers encrypted services which protects the client's private information during transmission and you do not even have to leave your home.
- Expenses control for customers, as they can always check their virtual account where they can find transaction history.

ELECTRONIC DATA INTERCHANGE

EDI (Electronic Data Interchange) is a concept businesses electronically communicating information that was traditionally communicated on paper, such as purchase orders and invoices. In 1996, National Institute of Standards and Technology defined EDI as "the computer to computer interchange of strictly formatted messages that represent documents other than monetary instruments.
In short, EDI can be defined as the transfer of structured data, by agreed message standards, from one computer system to another without human intervention.

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B.Com. / ~~M.Com.~~ / ~~B.B.A.~~

Assignment Sheet Sr. No. 17852

Name : CHRISTOPHER. DOMNICK. PATRICK Roll No.: 0420

Class : F4.BCOM Subject : BUSINESS MATHEMATICS & STATISTICS.

Date : 10/10/2019 Marks : 02

Name & Sign of Subject Teacher

Writing Space 1

① An auto stereo dealer sells a stereo system for ₹6000 down and monthly payments of ₹300 for the next 3 years. If the interest rate is 1.25% per month on the unpaid balance, find

a) the cost of the stereo system;

b) the total amount of interest paid.

→ Down Payment − 6000

$c = 300 \quad n = 3 \times 12 - 36 \quad r = 1.25$

$$i = \frac{r}{100} = \frac{1.25}{100} = 0.0125$$

$$P = \frac{c}{i}\left[1 - (1+i)^{n}\right]$$

$$= \frac{300}{0.0125}\left[1 - 1(1+0.0125)^{36}\right]$$

$$= 24000\left[1 - \frac{1}{(1.0125)^{36}}\right]$$

$$= 24000\left[1 - \frac{1}{(1.5639)}\right]$$

2 $= 24000\,[1 - 0.6394]$

$= 24000 \times 0.3606$

$P = 8654.4$

∴ Cost Price = Present value + Down Payment

$= 8654 + 6000$

$= 14654$

∴ Total Amount Paid = Down Payment + Installment

$= 6000 + (300 \times 36)$

$= 6000 + 10,800$

$= 16,800$

∴ Interest = Total amount paid − cost price

$= 16800 - 14654$

$= 2164$

② A business sets up a sinking fund so that it will be able to pay off bonds it has issued when they mature. If it deposits ₹12,000 at the end of each quarter in an account that earns 5.2% interest, compounded quarterly, how much will be in the sinking fund after 10 years?

→ Given,

$C = 12,000 \quad n = 10 \times 4 = 40$

$r = \frac{5.2}{4} = 1.3$, $i = \frac{r}{100} = \frac{1.3}{100} = 0.013$

$$A = \frac{C}{i}\left[(1+i)^n - 1\right]$$

$$= \frac{12000}{0.013}\left[(1+0.013)^{40} - 1\right]$$

$$= 923076.92\left[(1.013)^{40} - 1\right]$$

$$= 923076.92\left[1.6764 - 1\right]$$

$$= 923076.92 \times 0.6764$$

$$= ₦624369.80 \quad \text{i.e } 624370$$

$$\boxed{A = ₦624370}$$

③ A building contractor gives a ₦13,500 promissory note to a plumber who has loaned him ₦13,500. The note is due in nine months with interest at 9%. Three months after the note is signed, the plumber sells it to a bank. If the bank gets a 10% return on its investment, how much will the plumber receive? Will it be enough to pay a bill for ₦13,650?

→

Bankers Discount $= \frac{13500 \times 10 \times 6}{100 \times 12}$

$= ₦675$

∴ Plumber will receive $= 13500 - 675$

$= ₦12825$

(4) A developer needs ₹80,000 to buy land. He is able to borrow the money at 10·1· per year compounded quarterly. How much will the interest amount to if he pays off the loan in 5 years?

→ Given,

$P = 80,000$, $N = 4 \times 5 = 20$, $r = \frac{10}{4} = 2.5$

$i = \frac{r}{100} = \frac{2.5}{100} = 0.025$

$$P = \frac{x}{i}\left[\frac{1 - 1}{(1+i)^n}\right]$$

$$80,000 = \frac{x}{0.025}\left[\frac{1 - 1}{(1+0.625)^{20}}\right]$$

$$80,000 \times 0.025 = x\left[\frac{1 - 1}{1.6386}\right]$$

$$2000 = x[1 - 0.6103]$$

$$2000 = x \times 0.3897$$

$$x = \frac{2000}{0.3897}$$

$$\therefore x = 5132.1529$$

∴ Total Amount paid $= 5132.1529 \times 20$

$= 102643$

∴ Interest paid = Amount paid - Loan Taken
= 102643 - 80,000
= ₹ 22,643.

(5) A mother opened an investment account for her son on the day he was born, investing ₹ 1000. Each year on his birthday, she deposits another ₹ 1000, making the last deposit on his 18th birthday. If the account paid a return rate of 5.6% compounded annually, how much is in the account at the end of the day on the son's 18th birthday?

→ Given,

$C = 1000$, $N = 18$, $r = 5.6$

$i = \frac{r}{100} = \frac{5.6}{100} = 0.056$

$$A = \frac{C}{i}\left[(1+i)^n - 1\right]$$

$$= \frac{1000}{0.056}\left[(1+0.056)^{18} - 1\right]$$

$$= 17857.14\left[(1.056)^{18} - 1\right]$$

$$= 17857.14 \times (2.6666 - 1)$$

$$= 17857.14 \times 1.6666$$

$$= 29759.90 \text{ i.e } 92760$$

$$= 29760$$

∴ Amount Accumulated on 18th Birthday
= 29760 + 1000
= ₹ 30760