

Q. P. code is 19815
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Business Mathematics FYBFM SEM-I Nov 2017

Q.1 A) MCQ; (ANY 8) 8M

1. B
2. B
3. A
4. B
5. B
6. B
7. C
8. B
9. A
10. A

B) T OR F: (ANY 7) 7M

1. T
2. F
3. F
4. F
5. T
6. T
7. F
8. F
9. T
10. T

Q.2 A) TOTAL SALES=RS.21780(5M) AND BONUS=RS.354.40(3M)

B) $X=2, M=10$ AND $W=6(7M)$

OR

Q.2 P) COST PRICE =RS.22500. (8M)

Q)

	A	B	C
INCOME(4M)	15000	10000	25000
EXP.(3M)	14250	9700	24000

Q.3 A) $A=P(1+i)^n=RS.14641$ (6M) AND $INT=A-P=RS.4641(2M)$

B) $A^1=C(1+i)/i((1+i)^n-1)$ AND $N=4.(7M)$

OR

P) $A=P(1+i/m)^{mn}$

FOR HALF YEARLY=RS206.10314 (4M) AND QUARTERLY=RS.180.61109.(4M)

Q) $R=Pi/(1-(1+i)^{-n})=RS.77.532(5M)$ AND $EMI=RS.100.(2M)$

2

Q.4 A) $ROR = (DIV. RD. P. S / INVEST. IN ONE SHARE) * 100$ D=RS. 6. (8M).

B) $DIVIDEND = NO. OF UNITS * DIVIDEND PER SHARE = 85.25 * 5 = RS. 426.25$. (7M)

OR

Q.4 P) TOTAL NO. OF SHARES (POST BONUS SHARES) = $240 + 90 = 330$ (4M) AND GAIN AFTER BONUS = RS. 37200. (4M)

Q) AVG. UNIT COST TO THE INVESTOR = $TOTAL AMT. INVESTED / TOTAL UNITS ACQUIRED = RS. 44.444$ (5M) AND A.M = RS. 52.5 (2M)

Q.5 A) TYPES OF ANNUITY

(8M)

An **annuity** is a sequence of payments made successive periods or intervals of time. If all payments are equal then the annuity is called as a **uniform annuity** or a level annuity. If not all payments are equal then it is called **variable annuity**. If the total number of time periods for which the annuity payments are made, is fixed in advance the annuity is called **annuity certain**. If the payments are to be made as long as a person is alive is called **life annuity**. If the payments are made at the end of successive periods, then the annuity is called **immediate annuity** or ordinary annuity. If the payments are made at the beginning of each successive period then the annuity is called **annuity due**.

B) EMI

(7M)

Nowadays, many consumer goods are sold with a loan to be repaid in equated monthly instalments (EMI). There are two methods of calculating the EMI – the flat rate method that uses simple interest and the reducing balance method that uses compound interest.

OR

Q.5 SN (ANY3) (5M) EACH

1. SINKING FUND

A fund created to accumulate a specific sum of money at some definite date in future by paying regular and equal payments at compound interest.

2. RIGHT ISSUE

Shares are offered to existing shareholders and if they reject then offered to public.

3. ADVANTAGES OF PREFERENCE SHARES

Assurance of dividend and capital (at the time of winding up)

4. MUTUAL FUND

It is a professionally managed firm of collective investments that pools money from many investors and invest in securities.

5. RATIOS

The relationship between two quantities a and b of the same kind which expresses one quantity a as multiple or a part of the other quantity. Read as a is to b.