

B.Com. Part—II (Semester—III) Examination

BUSINESS MATHEMATICS

Time : Three Hours]

[Maximum Marks : 80

- Note** :— (1) There are **three** Sections A, B, and C.
 (2) Section A -20 marks, Section B - 20 marks and Section C - 40 marks.
 (3) All questions are compulsory.
 (4) Section B and Section C comprises of short and long answer respectively. Attempt One each from respective unit having internal choice from the same unit.
 (5) Show necessary working notes wherever necessary.

SECTION—A

- Note** :— (1) Answer **all** the questions.
 (2) Choose the correct answer and rewrite it.

- H.C.F. of 42 and 28 ____ .
 (a) 10 (b) 12
 (c) 14 (d) 16
- L.C.M. of 11, 33 ____ .
 (a) 33 (b) 21
 (c) 12 (d) 23
- If $9 + 5x = 3x + 13$ the value of x will be ____ .
 (a) 2 (b) - 2
 (c) 1 (d) - 1
- Sum of two numbers is 16 and difference is 4. The numbers are ____ .
 (a) 9, 7 (b) 11, 5
 (c) 8, 8 (d) 10, 6
- Out of 200 students 80 students passed, pass percentage is ____ .
 (a) 20% (b) 30%
 (c) 40% (d) 50%
- In a 100 litre mixture of milk and water milk is 75 litre, the percentage of water is ____ .
 (a) 5% (b) 10%
 (c) 15% (d) 25%
- An article costing Rs. 12,000 is sold for Rs. 10,000 the rate of discount is ____ .
 (a) 16.67% (b) 12.65%
 (c) 1.67% (d) 6.67%

8. 12.5% commission on the sale of goods worth Rs. 8,000 is _____.
 (a) Rs. 800 (b) Rs. 600
 (c) Rs. 500 (d) Rs. 1,000
9. Average price of pen, notebook and book is Rs. 80 and average price of pen and book is Rs. 65. The price of notebook is _____.
 (a) Rs. 90 (b) Rs. 110
 (c) Rs. 130 (d) Rs. 150
10. The average of 0.425, 3.245, 0.83, 25 is :
 (a) 1.835 (b) 4.57
 (c) 7.375 (d) 6.64
11. Correct formula is _____.
 (a) $\text{Profit} = \frac{\text{Profit}}{\text{C.P.}} \times 100$ (b) $\text{Profit} = \text{S.P.} - \text{C.P.}$
 (c) $\text{Profit} = \text{C.P.} - \text{S.P.}$ (d) $\text{Profit} = \frac{\text{Profit}}{\text{S.P.}} \times 100$
12. The cost price and selling price of pen is Rs. 50 and Rs. 55 respectively, the profit is _____.
 (a) Rs. 11 (b) Rs. 20
 (c) Rs. 10 (d) Rs. 5
13. Rs. 20,000 at 6% compound interest in one year becomes :
 (a) Rs. 800 (b) Rs. 1,000
 (c) Rs. 1,200 (d) Rs. 1,400
14. Simple interest of Rs. 5,000 of 5% p.a. for 5 years is _____.
 (a) Rs. 1,250 (b) Rs. 1,050
 (c) Rs. 1,150 (d) Rs. 1,350
15. Simple interest formula is _____.
 (a) $\text{S.I.} = \frac{\text{P} - \text{N} - \text{R}}{100}$ (b) $\text{S.I.} = \frac{\text{P} + \text{N} + \text{R}}{100}$
 (c) $\text{S.I.} = \frac{\text{P} + \text{N} - \text{R}}{100}$ (d) $\text{S.I.} = \frac{\text{P} \times \text{N} \times \text{R}}{100}$
16. Rs. 2,000 becomes Rs. 3,000 in 10 years the rate of interest is _____.
 (a) 4% (b) 5%
 (c) 8% (d) 10%
17. The ratio between prices of two cows costing Rs. 1,500 and Rs. 1,000 is _____.
 (a) 2 : 3 (b) 5 : 2
 (c) 3 : 2 (d) 5 : 3

18. The smallest ratio in the following is ____.
- (a) 5 : 4 (b) 3 : 4
(c) 6 : 7 (d) 7 : 8
19. If $30 : x :: 6 : 5$, x is :
- (a) 1 (b) 24
(c) 36 (d) 25
20. 20 persons complete a job in 10 days, 25 persons will complete the same job in :
- (a) 8 days (b) 10 days
(c) 16 days (d) 20 days 1×20=20

SECTION—B

1. The HCF of two numbers is 12 and its LCM is 2340. Out of the two numbers one number is 180. Find the second number. 4

OR

The sum of two numbers is 250. Their difference is 50. Find the numbers. 4

2. A man donates 3% and spends 90% of his monthly income. If he saves Rs. 1750, find his monthly income. 4

OR

Marked price of a shirt was Rs. 1,650 and it was sold at a discount of 12%. Find the discount allowed on shirt and also its selling price. 4

3. Out of four numbers the average of first three numbers is 50. If the fourth number be 70 and the average of last three numbers be 55, find the first number. 4

OR

A book seller buys 50 books for Rs. 20,000 and sells them at Rs. 600 each. Find his gain percentage. 4

4. What amount should be invested at 6 p.c. p.a. for 4 years to earn an interest of Rs. 720 ? 4

OR

Find out compound interest on Rs. 4,000 at 10% p.c. p.a. for 3 years. 4

5. The ratio between the ages of mother and son is 5 : 2. If the sum of their ages is 42 years, find their ages. 4

OR

If a labour works for 5 hours he gets Rs. 40 as wages. If he works for 9 hours, how much wages would he get ? 4

SECTION—C

1. Find out LCM and HCF of 120, 280, 260. 8

OR

Find out the value of x and y from the following two equations :

$$4x - 6y = 28; 10x + 8y = 24. \quad 8$$

2. In an examination 78% examiness passed in Business Mathematics and 70% passed in Financial Accounting. If 18% examiness failed in both the subjects and 2688 examinees passed in both the subjects, find the total number of examines appeared. 8

OR

A dealer buys an old motorcycle marked at Rs. 25,000 with 20% discount. He spends Rs. 1,000 for its repairs and sells it for Rs. 25,000. Find his gain or loss % . 8

3. The average cost of 20 cows is Rs. 1600. If the average cost of 10 Kosi cows is Rs. 1850 and 6 Haryana cows is Rs. 1550, find the average cost of the remaining 4 cows. 8

OR

The trader suffers 10% loss by selling a watch for Rs. 180. At what price should he sell it to gain 20% profit ? 8

4. In how many years will the sum of Rs. 2,40,000 amount to Rs. 3,00,000 with simple interest at 5% p.a. ? 8

OR

Find the difference between the simple and compound interests on Rs. 4,000 at 10% p.a. for 2 years. 8

5. The combined cost of a cycle and watch is Rs. 2340. If their costs are in the ratio of 7 : 5, find their cost. 8

OR

If the cost of 32 chairs is Rs. 7,200, how many chairs can be bought for Rs. 15,300 ? 8