



Class: XII Entrepreneurship	Department: Commerce
Chapter: 5	Topic: BUSINESS ARITHMETIC

SHORT ANSWER QUESTIONS:

1. Define: Unit of sale, Unit Price, Unit Cost.

2. At BEP, which of the condition is to be fulfilled: (Choose the correct option)

A. Total Revenue = Total Profit

B. Total Profit = Total Cost

C. Total revenue = Total cost

D. Total Revenue = fixed cost.

3. Fill in the blanks:

(a) The _____ is the Unit of Sale for multi-product business.

(b) The average billing per customer is considered as _____ for multi-product business.

(c) If 70 customers bought goods worth Rs,21,000, then the unit price is _____

4. If the purchase price is 80% of selling price, and the selling Price is Rs,2,000. Then the gross profit per unit earned by the business is: (Choose the correct answer)

A. Rs.1,000

B. Rs.500

C. Rs.1,600

D. Rs.400

5. The formula for Break-even point for a single product business is: (Choose the correct option)

A. Fixed cost/Selling price

B. Fixed cost/ (unit price – unit cost)

C. Fixed cost/ Gross margin per unit.

D. Both B and C

6. Mani Co. Ltd manufacturers has three products: Pen, Pencil and Sharpener.

	PEN	PENCIL	SHARPENER
Total weighted average contribution per unit	₹ 10	₹ 12	₹ 8

Total fixed cost is ₹ 90,000.

From the above given information Overall break even points in units will be:

- A. 4,000 B. 2,000 C. 3,000 D. 5,000

7. Harshit is the stock keeper of Sita Textiles Ltd. The company is into converting cotton yarn into fabric and then further printing on the same to add value to the fabric. He wants to know the ideal quantity of yarn to be ordered so that the production process does not stop.

How can he know the ideal quantity to place an order?

- A. By calculating Break-even point
B. By calculating Re-order point
C. By calculating Economic order quantity
D. By calculating lead time

8. The total bill in a restaurant during a week was ₹ 18,000. Though the food bill for individual customer was different but the average bill amount was ₹ 150. Based on this information, the number of customer who ate in that restaurant during the week is

- A. 90 B. 100 C. 120 D. 140

9. Farhan sold a mobile hand set for ₹ 2,100. If the purchase price of the product is 80% of its selling price, the profit earned by Farhan is :

- A. ₹ 1,700 B. ₹ 1,680 C. ₹ 420 D. ₹ 400

10. A business having Cash in hand Rs.2,000; Short term Investment Rs.5,000, Debtors Rs.10,000; Creditors Rs.4,000 and bank overdraft Rs.1,000.

The amount of Gross Working capital is: (Choose the correct answer)

- A. Rs.17,000
B. Rs.12,000
C. Rs.6,000
D. Rs.15,000

11. If procurement or manufacturing lead time is 2 months, and demand during this period is expected to be 300 units per month, then the re order level is: (Choose the correct option)

- A. 150 units

- B.600 units
- C.100 units
- D.500 units

9. What is EBITDA?

12. A grocery store owner has an equity stake of Rs. 40,000 in the business. He has borrowed Rs.60,000. This will attract an interest of @ of 10% per annum. The net profit after tax is Rs. 14,000. Calculate the ROE. (Choose the correct option)

- A.25%
- B.30%
- C.35%
- D.40%

13.State True or False: Economic order quantity (EOQ) is the order quantity of inventory that maximizes the total cost of inventory management.

DESCRIPTIVE QUESTIONS/NUMERICALS

14..Number of people who took their meals and the total billing for each of the 5 weeks is in the following table. What are the (a)Unit of sale , (b)Unit Price in this case? If the variable cost is 50% of the sale price, calculate the (c)Unit Cost and the (d) Gross Margin per Unit of Sale.

Weeks	No. of people taking meals	Total amount billed (₹)	Average amount billed (₹)
Week 1	120	18,000	150
Week 2	60	12,300	205
Week 3	70	10,220	146
Week 4	80	17,680	221
Week 5	90	21,600	240
Total	420	79,800	

15. . A hotel had varying number of guests during five weeks. The information regarding the number of guests and the average weekly billing is presented in the following table :

Week	No. of Guests	Average Billed Amount ₹
1	240	300
2	120	410
3	140	292
4	160	442
5	180	480

16. The product mix of a business consists of 3 products A, B and C. The selling price per unit is Rs.15, Rs.21 and Rs.36 respectively. The Variable cost per unit A – Rs.9; B- Rs.14 and C- Rs.19. The Sales mix percentage A- 20%, B- 20%, C- 60%. Total fixed cost Rs.40,000. Calculate the break-even point in units and in rupees.

17. A business deals in the following products: A, B, C and D. The Selling Price: Rs.100,000; Rs.50,000; Rs.70,000 and Rs.2,00,000 respectively Variable Cost: Rs.30,000; Rs.25,000; Rs.30,000 and Rs.100,000 respectively.

Allocated Fixed Expenses per month: Rs.350,000; Rs.2,50,000; rs.10,00,000 and Rs.15,00,000 respectively Compute Break Even Level , show the working.

18. 'Flavouright Foods Ltd.' started a business of making nachos (corn chips) in three variants, Classic Cheese, Toasted Corn and Tangy Tomato. To start with, all the three variants will be sold in a standard packing of 100 gm each, the selling price would differ due to the ingredients used. Fixed costs are Rs.38,000.

Sales price and variable costs per unit are as follows :

Particulars	Classic Cheese	Toasted Corn	Tangy Tomato
Sales Price ₹	80	45	60
Variable Cost ₹	40	15	20
Packets sold	100	40	60

From the above information calculate :

- Weighted contribution margin per unit.
- Breakeven point – total and per product.

19. Breezolit Pvt. Ltd.' started a business of making three varieties of designer fans – Vitara, Grand, Quadraflow. From the following information, calculate Breakeven point in units for the company and state which variety is most revenue generating. Fixed costs are Rs.15,20,000.

Details	Vitara	Grand	Quadraflow
Sale Price (₹)	800	450	600
Variable Cost (₹)	400	150	200
Sales Mix	50%	20%	30%

20. The Fancy Store' a readymade garments retail shop sold 8,000 shirts at Rs 400/- per shirt during the year ended 31st March, 2014. Cost of placing an order and receiving goods is Rs 200 per order. Inventory holding cost is Rs 500/- per year. Calculate the 'Economic Order Quantity' for 'the Fancy Store.

21. Jalalji an entrepreneur started a new website 'Fashionate Shirts' to sell readymade shirts. In the first year he sold 1200 shirts at the rate of Rs 500 each. His cost of placing an order and receiving the shirts is Rs1000 per order. If the Economic Order Quantity is 200 shirts, find out the inventory holding cost per year.

22. A book shop sells pens – 30,000 qty per year. Demand is uniform. Purchase cost is Rs.6/- per pen. Holding cost per annum is 20% of purchase cost. Ordering cost is Rs.500/- per order. What should be the EOQ for the shop keeper?

23. Harsha started her herbal beauty products shop in Chandigarh with a capital of Rs.9,00,000. She took a loan of Rs.5,00,000 from the State Bank of India at 9% p.a. interest. During the year ended 31st March, 2016 her sales were Rs.20,90,000 and the cost of goods sold was Rs.15,30,000. She paid monthly rent of the shop Rs.11,000 and a monthly salary of Rs.25,000 to the employees. The tax rate is 30%. Calculate the Return on Investment and Return on Equity.

24. Raj started a restaurant on a National Highway in the name of 'Desi Dhaba' by spending Rs.25,00,000. He invested Rs.10,00,000 of his own and took a loan of Rs.15,00,000 from Dena Bank, @ 6% per annum. His monthly sales revenue is Rs.17,00,000 and cost of goods sold is Rs.9,00,000. He pays monthly salary of Rs.3,00,000 to his employees. The tax rate is 25%.

You are required to calculate : (a) Return on Investment and (b) Return on Equity for Raj.

Ans:

Investment = Rs.25,00,000

Equity = Rs.10,00,000

Loan = Rs.15,00,000

25. Aditi started a beauty parlor business. She spends Rs.30,00,000/- to open the parlour of which she invested Rs.14,00,000/- of her own money and borrowed a loan for Rs.16,00,000. Interest rate per annum is 14%. Sales revenue per month is Rs. 1,60,000. Cost of goods sold is Rs. 60,000/- per month. Fixed expenses for that month is Rs. 60,000 (salary Rs.40,000, rent and utility Rs. 20,000), depreciation Rs.30,000 and tax @ 15%.

Calculate ROI and ROE.

26. Calculate working capital Raja & Co. has the following items in its Balance sheet Stock - 50,000; Trade creditors – 32,000; debtors – 75,000; cash – 1,00,000 Dividend payable – 50,000; Provision for Tax – 44,000; Short term loan – 61,000; Short term investments – 76,000 Calculate gross and net working capital.

27. Discuss the concept of Operating cycle and Cash Conversion Cycle.

28. Explain the factors to be considered in inventory control.

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