H Roll No. .....

XBC–401/XBI–401/ MBH–405/PBH–404/ BBA–406/BOV–405/ BCH–407/ESE–401(B)

B. C. A. / B. SC. (IT) /B. SC. (H) MATHS. / B. SC. (H) PHYSICS/ B. B. A. / B. VOC. IN ACCOUNTING AND FINANCE / B. COM. (H) /B. A. (H) ENGLISH (FOURTH SEMESTER) MID SEMESTER EXAMINATION, March, 2024

CAREER SKILLS

Time : 1½ Hours

Maximum Marks : 50

Note : (i) This question paper has 50 questions. Attempt all questions. Each question carries equal marks.

P. T. O.

(ii) It is compulsory to write the SET on the OMR.

(iii) Use of a calculator is not allowed.

(iv) There is no negative marking.

Set–B

1. A milkman mixes 20 L of water to 100 L of milk and sells the mixture at the CP of milk. What is the profit % ?

   (a) 20%

   (b) 25%

   (c) 33.33%

   (d) 16.66%

2. Out of 60 things 30 were sold at 20% profit and the remaining at 20% loss. What is the overall profit or loss % ?

   (a) 3.33% loss

   (b) 20% loss

   (c) 3.33% profit

   (d) 6.66% profit

3. A boy purchased 80 oranges from the market. After reaching home, he found that 20 of them were rotten. The remaining oranges were sold at a profit of 50% each. Find the overall profit or loss % :

   (a) 10% loss

   (b) 37.5% profit

   (c) 12.5% loss

   (d) 12.5% profit

4. An item is sold for ₹ 240 at a loss of 20%. At what price it needs to be sold in order to make a profit of 20% ?

   (a) ₹ 300

   (b) ₹ 288

   (c) ₹ 260

   (d) ₹ 360

5. In front of a shop a sign said, "sale of 30% discount + 40% discount". What is the effective discount being offered ?

   (a) 58% discount

   (b) 70% discount

   (c) 35% discount

   (d) None of these

6. What is the remainder when 257 * 733 * 917 is divided by 3 ?

   (a) 0

   (b) 1

   (c) 2

   (d) None of these

7. Find the number of even factors of 3150 :

   (a) 18

   (b) 24

   (c) 36

   (d) None of these

8. If A got 40% marks more than B in the exam, by what percentage is B's marks less than that of A ?

   (a) 28.56%

   (b) 7.14%

   (c) 9.09%

   (d) 40%

9. What is 20% of 30% of 300 ?

   (a) 20

   (b) 25

   (c) 18

   (d) None of these

10. By what percentage is 60% of 1750 more than 45% of the same number ?

    (a) 15%

    (b) 33.33%

    (c) 25%

    (d) None of these

11. Find the largest three-digit number which gives a remainder of 2 when divided by 3, 4 and 5 :

(a) 902

(b) 962

(c) 992

(d) None of these

12. A number when divided by 15 gives a remainder of 11. Find the remainder when twice the number is divided by 3 :

(a) 0

(b) 1

(c) 2

(d) Cannot be determined

13. Find the largest number that will divide 240, 282 and 303 to give the same remainder each case :

(a) 4

(b) 21

(c) 7

(d) 14

14. What is the HCF of 2/3, 4/8 and 4/5 ?

(a) 1/30

(b) 1/120

(c) 1/60

(d) 2/35

15. A number when divided by 5 and 3 leaves remainders of 3 and 1, respectively. Find the smallest such 3 digit number :

(a) 101

(b) 103

(c) 118

(d) None of these

16. A merchant sells an item at a profit of 20%. If he had purchased it at 20% less and sold it for ₹ 50 more, his profit would have been 60%. Find the cost price of the item :

(a) ₹ 625

(b) ₹ 575

(c) ₹ 600

(d) ₹ 675

17. The MP of an item is ₹ 250. This item is sold at a discount of 20%. If the CP of the item is ₹ 175, find the profit :

(a) ₹ 50

(b) ₹ 40

(c) ₹ 25

(d) ₹ 15

18. Two things are sold for ₹ 1,800 each, the first one at a profit of 20% and the second at a loss of 10%. Find the overall profit or loss % :

(a) 10% profit

(b) 8% profit

(c) 5.7% profit

(d) 2.85% profit

19. Two items were sold for ₹ 4,800 each, one at a profit of q% and the other at a loss of q%. If the overall loss is 4%, find the difference in the cost price of the two items :

(a) ₹ 3,840

(b) ₹ 3,000

(c) ₹ 2,840

(d) ₹ 2,000

20. How much water must be mixed with 96 L of milk to make a profit of 16.66% by selling the mixture at cost price ?

(a) 16 L

(b) 18 L

(c) 24 L

(d) 20 L

21. A spider climbed 62.5% of the height of the pole in 1 hour and in the next hour it covered 12.5% of the remaining height. If the height of the pole is 192 m, then the distance climbed in the second hour is :

(a) 5 m

(b) 7 m

(c) 8 m

(d) 9 m

22. A fruit seller purchased 610 mangoes from the market. If 50 mangoes were rotten and 25% of the remain got sold, find the number of mangoes left :

(a) 140

(b) 420

(c) 475

(d) 525

23. 1100 boys and 700 girls appear for a test. If 42% boys and 30% girls pass the test, find the percentage of students who failed in the test :

(a) 28%

(b) 62.66%

(c) 64%

(d) 20%

24. Mohan spends 40% of his income on rent, 20% on food, 10% on entertainment and saves the rest. If he saves a net amount of ₹ 4,380, find his income :

(a) ₹ 21,900

(b) ₹ 14,600

(c) ₹ 1,46,000

(d) ₹ 29,200

25. In an election, 20% of the eligible voters did not vote. Out of the remaining, 10% votes were declared invalid. If there were two contestants and the winner got 60% of the valid votes and won by 144 votes, find the number of eligible voters in the election :

(a) 1,000

(b) 500

(c) 720

(d) 900

26. If the length of a rectangle increases by 20% while the breadth decreases by 20%, what is the percentage change in the area of the rectangle ?
    (a) No change
    (b) 4% increase
    (c) 4% decrease
    (d) Cannot be determined

27. If the price of sugar increases by 20%, by what percentage should the consumption be reduced so that overall expenditure is same as earlier ?
    (a) 16.66%
    (b) 20%
    (c) 25%
    (d) None of these

28. The number of seats in a theatre is increased by 20%. The price of a ticket is decreased by 10%. What is the percentage change in the total collection per show ?
    (a) 10% decrease
    (b) 8% decrease
    (c) 32% increase
    (d) 8% increase

29. In an exam, a candidate got 35% marks and failed by 12 marks. If he had got 48% marks instead, he would have got 14 marks more than the passing marks. Find the passing marks :
    (a) 96
    (b) 82
    (c) 200
    (d) None of these

30. If A got 8.33% more votes than B in an election, by what percentage is B's votes less than that received by A ?
    (a) 7.71%
    (b) 8.33%
    (c) 9.09%
    (d) 10%

31. I sold an item at a discount of 20%. If the % mark up is 30%, find the overall profit % :
    (a) 4%
    (b) 10%
    (c) 14%
    (d) No profit, no loss

32. The weighing balance of a dealer shows 700 grams instead of 1 kg. Find the profit or loss % :

(a) 30% loss

(b) 14.28% profit

(c) 42.84% profit

(d) None of these

33. A shopkeeper sells at 20% mark up and uses a weight of 800 grams instead of 1 kg. Find the profit or loss % :

(a) 45%

(b) 50%

(c) 40%

(d) 35%

34. A man sold an item at a loss of 20%. As the cost price of the inputs increased by 30%, the selling price was increased by 30%. Find the new profit or loss % :

(a) 4% profit

(b) 56% profit

(c) 20% profit

(d) 10% loss

35. An item purchased for ₹ 350 is marked up at 30% of the cost price. If it is sold at a discount of 10%, find the profit % earned :

(a) 20% profit

(b) 30% profit

(c) 17% profit

(d) Cannot be determined

36. Two parties contest in an election where all the eligible people vote. If the winner gets 60% of the total votes and wins by 150 votes, find the number of votes polled in favour of losing party :

(a) 300

(b) 750

(c) 450

(d) 500

37. A person travelled from A to B covering 23% of the total distance by bus, 50% of the remaining by train and the rest of the 231 km by taxi. Find the total distance between A and B :

(a) 574 km

(b) 462 km

(c) 231 km

(d) 856 km

38. The side of a square was decreased by y% and hence the area was decreased by 11.64%. Find the value of y :

(a) 6

(b) 5.82

(c) 5.5

(d) 6.2

39. Two items are sold for ₹ 200 each, one at a profit of 15% and the other at a loss of 15%. What is the overall profit or loss % ?

(a) 2.25% loss

(b) 5% loss

(c) 2.25% profit

(d) None of these

40. The CP of 120 grams is same as the SP of 150 grams. Find the profit or loss % :

(a) 25% loss

(b) 20% loss

(c) 12.5% loss

(d) 22.5% loss

41. What is the remainder when 7492 is divided by 11 ?

(a) 1

(b) 7

(c) 19

(d) 10

42. If 486a is completely divisible by 4, then what could be the possible value of a ?

(a) 0

(b) 4

(c) 8

(d) Cannot be determined

43. If $7463c$ is completely divisible by 8, what is the value of c ?

(a) 0

(b) 1

(c) 2

(d) 3

44. Find the largest three-digit number which when divided by 6 and 5 gives respective remainders of 5 and 3 respectively :

(a) 113

(b) 983

(c) 953

(d) 980

45. Find the digit at the unit's place of the number :

$$-47^{278} * 38^{900} - 62^{177}$$

(a) 4

(b) 6

(c) 0

(d) 2

46. Find the total number of factors of 72 :

(a) 12

(b) 10

(c) 8

(d) 6

47. Find the last digit of $23^{729} * 78^{900}$:

(a) 7

(b) 3

(c) 0

(d) 8

48. How many numbers from 1 to 400 are divisible by both 3 and 7 but not by 42 ?

(a) 10

(b) 20

(c) 18

(d) 9

49. How many numbers exist from 1 to 100 such that on division by both 3 and 8, the remainder is 2 in each case ?

(a) 4

(b) 5

(c) 3

(d) 6

50. A number when divided by 57 gives the remainder as 29. Find the remainder when the same number is divided by 19 :

(a) 5

(b) 0

(c) 10

(d) 12