XBC–401/XBI–401/
XCH–401/BBA–406/
ESE–401/PBH–404/
MBH–405/LNC–416/
BOV–405/TBS–406(A)

**B. C. A./B. SC. (IT)/B. COM./B. B. A./
B. SC. (MATH)/B. SC. (PHY.) B. VOC./
B. SC. (CS)/B. A. (ENG.)/B. A. (ECO.)/
B. A. LL. B./B. B. A. LL. B.
(FOURTH SEMESTER)
MID SEMESTER
EXAMINATION, April, 2023**

CAREER SKILLS

Time : 1½ Hours

Maximum Marks : 50

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

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

(iii) Use of a Calculator is not allowed.

P. T. O.

Set–A

1. Nidhi purchased 610 mangoes from the market. If 50 mangoes were rotten and 25% of the remaining got sold, find the number of mangoes left :
   (a) 140
   (b) 420
   (c) 475
   (d) 525

2. The length of a rectangle decreases by 4.76%. By what percentage should the breadth increase so that the overall area remains constant ?
   (a) 4.76%
   (b) 5%
   (c) 5.26%
   (d) Cannot be determined

3. To pass an exam in which the maximum marks are 250, a candidate should obtain 40% marks. Raj scores 10% more marks than the passing marks. Find the percent of marks scored by Raj.
   (a) 50%

   (b) 40%
   (c) 44%
   (d) 44.44%

4. Shatakshi purchased 2 kg of an apple costing ₹ 35/kg and another variety for an equal sum but costing ₹ 10/kg. She mixed the two varieties and sold the entire lot at ₹ 20/kg. Find the profit or loss% :
   (a) 11.11%
   (b) 14.28%
   (c) 17.5%
   (d) 28.56%

5. If the CP of six items is equal to the SP of seven times, what is the profit or Loss% ?
   (a) Loss, 14.28%
   (b) Loss, 9.09%
   (c) Loss, 7.14%
   (d) None of the above

6. 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 the above

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

   (a) 4% profit

   (b) 56% profit

   (c) 20% loss

   (d) 10% profit

8. Anjali purchased 35 kg of rice for ₹ 1,400 and sold it at a profit of as much as she received for 10 kg. Find the selling price of rice in ₹/kg :

   (a) ₹ 56

   (b) ₹ 40

   (c) ₹ 140

   (d) None of the above

9. By selling an article at two-fifth of the marked price, there is a loss of 25%. The ratio of the marked price to the cost price of the article is :

   (a) 2 : 5

   (b) 5 : 2

   (c) 8 : 15

   (d) 15 : 8

10. Anurag purchased some items of equal value for ₹ 1200, sold one-third at a loss of 20%. At what profit % should he sell the remaining so that the overall profit is 10% ?

    (a) 25%

    (b) 35%

    (c) 30%

    (d) 45%

11. How many numbers from 1 to 100 can be expressed as a product of their factors in more than one way ?

    (a) 25

    (b) 74

    (c) 75

    (d) 26

12. Find the digit at the unit's place of the numbers $47^{278} * 38^{900} - 62^{177}$:

    (a) 4

    (b) 6

    (c) 0

    (d) 2

13. How many three digit numbers less than 300 will give respective remainders of 2, 3 and 4 when divided by 3, 4 and 5 ?

    (a) 6

    (b) 5

    (c) 7

    (d) 4

14. If the number 2506 × 8 is divisible by 8, how many different values can x take ?

    (a) 2

    (b) 1

    (c) 3

    (d) 4

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

    (a) 4

    (b) 21

    (c) 7

    (d) 14

16. How many numbers less than 1000 will give remainders of 3 and 7 when divided by 4 and 9 respectively ?

    (a) 27

    (b) 28

    (c) 29

    (d) 30

17. The HCF of 2/9, 16/3, 32/27, 20/81 is :

    (a) 2/3

    (b) 160/3

    (c) 2/81

    (d) 160/81

18. What is the remainder when 23*31*46 is divided by 7 ?

   (a) 1

   (b) 2

   (c) 4

   (d) 6

19. How many pairs of numbers exist whose HCF is 12 and LCM is 1728 ?

   (a) 0

   (b) 1

   (c) 2

   (d) 3

20. Find the smallest number greater than 500 which will give a remainder of 3 when divided by 4, 5 and 6 :

   (a) 540

   (b) 603

   (c) 543

   (d) 523

21. Anand sold an article at a loss of 5%. If he had sold it for ₹ 30 more, he would have earned a profit of 5%. Find the cost price of the article :

   (a) ₹ 100

   (b) ₹ 200

   (c) ₹ 300

   (d) ₹ 400

22. Two things were sold for ₹ 1800 each, the first one at a profit of 20% and the second one 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

23. In what ratio must water be mixed with milk in order to make a profit of 12.5% by selling it at cost price ?

   (a) 1 : 8

   (b) 1 : 12.5

   (c) 1 : 5

   (d) 1 : 4

24. On selling 20 m of cloth, a merchant realizes that he has made a loss equal to the SP of 4 m of cloth. Find his loss in percentage terms :

    (a) 20%

    (b) 16.66%

    (c) 15%

    (d) 12.5%

25. Smriti sold two items having the same CP, one at a profit of 10% and the other at 10% loss. What is the overall profit or loss% ?

    (a) 1% loss

    (b) 1% profit

    (c) No Profit, no loss

    (d) None of the above

26. A dealer sells an item at a mark up of 20%. His weighing balance shows y grams instead of 1 kg and thus he ends up making a loss of 16%. Find the value of y in grams :

    (a) 800

    (b) 750

    (c) 600

    (d) 700

27. If the SP of an item is 20% more than the CP and the discount offered is 10%, find the ratio of the marked price to the cost price :

    (a) 3 : 4

    (b) 4 : 3

    (c) 5 : 2

    (d) 2 : 1

28. Shivam 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

29. The profit earned by selling an article for ₹ 1000 is double the loss Incurred by selling it for ₹ 400. What is the cost price of the article ?

    (a) ₹ 600

    (b) ₹ 500

    (c) ₹ 750

    (d) ₹ 650

30. Neelam purchased 80 oranges from the market. After reaching home, she 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

31. The price of a movie ticket falls by 16.66% and the capacity increases by 25%, what is the overall percentage change in the total expenditure ?

   (a) 4%

   (b) 4.16%

   (c) No change

   (d) 20%

32. In an election Saurabh received 11% of the votes and Naveen received 145680 votes. 59%

of the candidates didn't cast their vote to any of the party. Find the total percentage of votes that Naveen received :

   (a) 40%

   (b) 36%

   (c) 30%

   (d) 35%

33. A man spends 75% of his income. His income increases by 20% and his expenditure also increases by 10%. The percentage of increase in his savings is :

   (a) 10%

   (b) 35%

   (c) 50%

   (d) 25%

34. 120 people attended a conference on Innovation. It was later found that 20% of the total number of people invited did not attend.

What is the number of people invited to attend the conference ?

(a) 150

(b) 144

(c) 140

(d) 160

35. The number of seats in a theatre increased by 20%. The price of 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

36. 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) 7.7%

(b) 8.33%

(c) 9.09%

(d) 10%

37. The value of a machine depreciates at the rate of 20% every year. If the machine was purchased 2 years ago and its present value is ₹ 6400, find the purchase price of the machine :

(a) ₹ 9,240

(b) ₹ 7,920

(c) ₹ 6,400

(d) ₹ 10,000

38. The price of an item increased by 20% in the first month and decreased by 15% in the subsequent month. If the new price after the two changes is 8160, find the price after the 20% increase became effective :

(a) ₹ 9,600

(b) ₹ 8,000

(c) ₹ 8,540

(d) ₹ 9,000

39. 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%

40. The price of a commodity increased by X% and so a family decided to reduce the consumption by 20% resulting in a 10% increase in the expenditure due to the commodity. Find the value of X :

   (a) 33.33%

   (b) 40%

   (c) 37.5%

   (d) 50%

41. Find the even number of factors of 660 :

   (a) 24

   (b) 18

   (c) 16

   (d) None of the above

42. Find the remainder when 43^{46} is divided by 5 :

   (a) 4

   (b) 1

   (c) 2

   (d) 3

43. Four bells rang in every 20 seconds, 40 seconds, 80 seconds and 120 seconds respectively. Then in an hour's time how many times will they ring together ?

   (a) 16

   (b) 15

   (c) 14

   (d) 12

44. P is a whole number which when divided by 4 gives 3 as remainder. What will be the remainder when 2P is divided by 4 ?

   (a) 0

   (b) 1

   (c) 2

   (d) 3

45. How many numbers between 190 and 580 are divisible by 4, 5 and 6 ?

   (a) 6

   (b) 7

   (c) 8

   (d) 9

46. What is the rightmost integer of the expression:

   $-65776^{759} + 54697^{467}$?

   (a) 3

   (b) 5

   (c) 7

   (d) 9

47. Find the smallest number greater than 500 which will give a remainder of 3 and 4 when divided by 4 and 9 respectively :

   (a) 504

   (b) 503

   (c) 508

   (d) 535

48. The price of rice falls by 15%. By what percentage the person can increase the consumption of rice so that the overall budget does not change ?

   (a) 10.74%

   (b) 17.64%

   (c) 20.46%

   (d) 21.90%

49. If the diameter of a circle is increased by 16%, its area increases by :

   (a) 34.56%

   (b) 32%

   (c) 16%

   (d) 17.28%

50. An engineering student has to secure 24% marks to pass. Jyotsana gets 61 marks and fails by 29 marks. What is the maximum marks for that exam ?

   (a) 375

   (b) 400

   (c) 425

   (d) 4504