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Roll No.

**XBC-401/XBI-401/XCH-401/
BBA-406/ESE-401/
PBH-404/MBC-405/
LNC-416(B)**

**B. C. A./B. SC. (IT)/B. COM.(H)/B. B. A./
B. A. (H) ENG./B.SC. (H) MATHS./
B.SC. (H) PHY./B. B. A. LL. B.
(FOURTH SEMESTER)**

END SEMESTER EXAMINATION, 2019

CAREER SKILLS

Time : Three Hours

Maximum Marks : 100

Note :(i) This question paper has 100 questions. Attempt all questions. Each question carries equal marks.

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

(iii) Calculator is allowed.

1. The ratio between the present age of J and K is 4 : 5. After 3 years J's age will be 31 years. What was K's age 7 years ago ?
(A) 28
(B) 35
(C) 27
(D) 45
2. In how many different ways can the letters of the word 'DETAIL' be arranged in such a way that the vowel only the odd positions ?
(A) 32
(B) 48
(C) 36
(D) 60
3. In how many ways can the letters of the word 'LEADER' be arranged ?
(A) 72
(B) 144
(C) 360
(D) 720
4. In how many different ways can the letters of the word 'APPLE' be arranged ?
(A) 60
(B) 80
(C) 120
(D) 75

(3) XBC-401/...../LNC-416(B)

5. How many numbers between 100 and 900 can be formed with the digits 1, 2, 3, 4 and 5, with no digit being repeated ?
(A) 120
(B) 60
(C) 85
(D) 500
6. How many different numbers greater than 5000 can be formed with the digits 0, 1, 5, and 9, with no digit being repeated ?
(A) 18
(B) 12
(C) 24
(D) 36
7. Find the number of four digits formed with the digits 1, 2, 3, 4, and 5 in which 3 occurs in the thousand place 5 occurs in the units place :
(A) 4
(B) 8
(C) 12
(D) 6

(4) XBC-401/...../LNC-416(B)

8. Out of 8 boys and 10 girls, how many groups of 2 boys and 2 girls can be formed ?
(A) 1000
(B) 1260
(C) 1350
(D) None of these
9. A began a business with ₹ 10,000. He was joined afterwards by B with ₹ 15,000. For how much period does B join, if the profits at the end of the year are divided in the ratio of 2 : 1 ?
(A) 4 months
(B) 5 months
(C) 6 months
(D) 8 months
10. M and N invested in a business. They earned some profit which they divided in the ratio of 3 : 2. If N invested ₹ 30,000, the amount invested by M is :
(A) ₹ 34,000
(B) ₹ 45,000
(C) ₹ 38,000
(D) ₹ 54,000

(5) XBC-401/...../LNC-416(B)

11. Three men shared a profit in the ratio 1 : 2 : 4. They had partnered for 10 months, 8 months and 12 months. What was the ratio of their investments ?
(A) 6 : 15 : 20
(B) 28 : 49 : 64
(C) 14 : 25 : 33
(D) 25 : 42 : 64
12. A began a business with ₹ 15,000. He was joined afterwards by B with Rs. 10,000. For how much period does B join, if the profits at the end of the year are divided in the ratio of 3 : 1 ?
(A) 4 months
(B) 5 months
(C) 6 months
(D) 8 months
13. The population of a town is 16500. During the last 2 years, the population increased at the rate of 20% per year. The population 2 years ago was (approx.) :
(A) 9545
(B) 10546
(C) 11458
(D) 12550

(6) XBC-401/...../LNC-416(B)

14. The passing marks in an examination are 40%. If Ram gets 88 marks and is declared failed by 10 marks, then the maximum mark in the examination is :

- (A) 245
- (B) 248
- (C) 260
- (D) 246

15. In a class, 40% of the students are female and thus the no. of boys exceed the no. of girls by 45. Find the total no. of students :

- (A) 190
- (B) 150
- (C) 200
- (D) 225

16. In an examination 45% of the students failed in Science, 42% of the students failed in Maths and 35% of the students failed in both subjects. Find the % of the students failed in at least one of the subjects :

- (A) 60%
- (B) 30%
- (C) 65%
- (D) 52%

(7) XBC-401/...../LNC-416(B)

17. The salary of Mohan increased by 15% and decreased by 10%. What is %age change in his salary ?

- (A) 5%
- (B) 3.5%
- (C) 6.5%
- (D) 22%

18. P's income is 20% more than Q's income. How much %age Q's income is less than P's income ?

- (A) 18.54%
- (B) 16.67%
- (C) 17.76%
- (D) 15.75%

19. The average age of 30 persons in a group is 20 years. The average age of 25 males is 15. What is the average age of remaining 5 females ?

- (A) 45
- (B) 44
- (C) 54
- (D) 55

(8) XBC-401/...../LNC-416(B)

20. Find the average of first 9 multiples of 8 :

- (A) 35
- (B) 40
- (C) 42
- (D) 44

21. Among the three numbers the first is four times the third number and second number is half of the first number. If the average of the three number is 63, then find the second number :

- (A) 27
- (B) 35
- (C) 54
- (D) 58

22. The average height of 15 students is calculated as 78. But later it was found that the height of 1 student wrongly entered as 63 instead of 48. The correct average is :

- (A) 72
- (B) 74
- (C) 75
- (D) 77

23. The average age of 12 workers is 60 yrs. 5 new workers of average age 40 yrs. join them. Find the new average age :

- (A) 50.5

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(9) XBC-401/...../LNC-416(B)

- (B) 52.5
- (C) 54.1
- (D) 50

24. The sum of present age of son and father is 100 yrs. Before 5 years the ratio of their ages was 5 : 13. Find the present age of son :

- (A) 15
- (B) 20
- (C) 25
- (D) 30

25. The ratio of monthly income of A and B is 7 : 6 and the ratio of their expenditure is 11 : 9. If each saves ₹ 800. Then the expenses of B :

- (A) ₹ 1,000
- (B) ₹ 2,400
- (C) ₹ 1,800
- (D) ₹ 2,200

26. The income of A, B, and C are in the ratio 3 : 4 : 7. If their incomes be changed such that the new income of A is 40% increased, 20% increased for B and decreased for C. Find the new ratio of their new incomes :

- (A) 7 : 8 : 9
- (B) 6 : 7 : 9
- (C) 12 : 40 : 23
- (D) 25 : 30 : 21

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(10) XBC-401/...../LNC-416(B)

27. The speeds of P, Q and R are in the ratio of 6 : 4 : 12, what is the ratio of time taken by each one of them for the same distance ?
(A) 5 : 3 : 2
(B) 3 : 2 : 1
(C) 1 : 2 : 4
(D) 2 : 3 : 1
28. A man has 10 p, 25 p and 50 p coins in the ratio of 5 : 2 : 1 respectively. If the total money is ₹ 120. Find the number of 25 p coins with :
(A) 140
(B) 135
(C) 123
(D) 160
29. The price of a bike is decreased by 20%. As a result of which the sale increased by 40%. What will be the effect on the total revenue of the shop ?
(A) 12% loss
(B) 12% profit
(C) 20% profit
(D) 20% loss

(11) XBC-401/...../LNC-416(B)

30. Amit saves 10%, after 2 years when his income is increased by 10%, he could save the same money, then by how much percentage his expenditure has been increased ?
(A) 8%
(B) 11.11%
(C) 16.66%
(D) 15%
31. The length and breadth of a rectangle are increased by 20% and 30%. The area of the resulting rectangle exceeds the area of the original rectangle by :
(A) 50%
(B) 65%
(C) 56%
(D) 156%
32. In an examination, full mark is 500, A gets 25% more than B, B gets 40% more than C and C gets 60% more than D. If A got 320, what percentage of full marks did D got (approx.) ?
(A) 20
(B) 21
(C) 22
(D) 23

(12) XBC-401/...../LNC-416(B)

33. If Harish height is 30% less than that of Manu, how much percentage Manu height is more than that of Harish ?

- (A) 42.8%
- (B) 42.68%
- (C) 42.83%
- (D) 42.85%

34. A shopkeeper sells sugar at 10% profit. If he sells it at 20% profit, begets ₹ 120 more. Find the CP :

- (A) ₹ 1,100
- (B) ₹ 1,120
- (C) ₹ 1,150
- (D) ₹ 1,200

35. The difference between the cost price and selling price of an article is ₹ 500, if the profit is 25%. The selling price is :

- (A) ₹ 750
- (B) ₹ 2,500
- (C) ₹ 2,000
- (D) ₹ 2,300

(13) XBC-401/...../LNC-416(B)

36. The CP of 20 articles is equal to SP 18 articles. Find the gain or loss :

- (A) 10%
- (B) 11.11%
- (C) 212%
- (D) 15%

37. Find the selling price of an article if the shopkeeper offers two successive discount of 10% on marked price 500 :

- (A) 402
- (B) 404
- (C) 405
- (D) 408

38. A dealer sold two TBs at ₹ 5,940 each. On selling one TB he gained 20% and on selling the other he lost 20%. Find the deal gain or loss percent :

- (A) 2% gain
- (B) 2% loss
- (C) 4% loss
- (D) no gain, no loss

F. No. : b-56

P. T. O.

(14) XBC-401/...../LNC-416(B)

39. The difference between the simple interest and compound interest on a certain sum for 2 years at 15% interest is ₹ 180. Find the Principal :

- (A) ₹ 6,500
- (B) ₹ 7,000
- (C) ₹ 7,500
- (D) ₹ 8,000

40. Find the effective annual rate of 10 percent per annum compounded half- yearly :

- (A) 10.5
- (B) 10.25
- (C) 11.25
- (D) 11.50

41. A sum of ₹ 800 amounts to ₹ 920 in 3 years at simple interest. If the interest rate is increased by 4%, it would amount to how much ?

- (A) ₹ 980
- (B) ₹ 996
- (C) ₹ 1,016
- (D) ₹ 1,050

(15) XBC-401/...../LNC-416(B)

42. In what proportion must bajra at ₹ 3.50 per kg be mixed with bajra at ₹ 3.75 per kg, so that the mixture be worth ₹ 3.60 a kg ?

- (A) 2 : 3
- (B) 2 : 5
- (C) 3 : 2
- (D) 2 : 1

43. In a mixture of 420 L, the ratio of milk and water is 6 : 1. Now, 120 L of the water is added to the mixture. What is the ratio of milk and water in the final mixture ?

- (A) 1 : 2
- (B) 1 : 3
- (C) 2 : 1
- (D) 3 : 2

44. A is 3 years older than B who is twice as old as C. If the total of ages A, B and C is 48, what is the age of C ?

- (A) 9 years
- (B) 12 years
- (C) 8 years
- (D) 10 years

45. If the average marks of three batches of 55, 60 and 45 students respectively is 50, 55, 60, then the average marks of all the students is :

- (A) 53.03
- (B) 54.68
- (C) 55
- (D) 58.5

46. The sum of three numbers is 98. If the ratio of the first to second is 2 : 3 and that of the second to the third is 5 : 8, then the second number is :

- (A) 80
- (B) 90
- (C) 98
- (D) 108

47. If 40% of a number is equal to two-third of another number, what is the ratio of first number to the second number ?

- (A) 2 : 5
- (B) 3 : 7
- (C) 5 : 3
- (D) 7 : 3

48. Two number are in the ratio 3 : 5. If 9 is subtracted from each, the new numbers are in the ratio 12 : 23. The smaller number is :

- (A) 27
- (B) 33
- (C) 49
- (D) 55

49. What is the unit digit of the expression 4^{993} ?

- (A) 2
- (B) 6
- (C) 4
- (D) None of these

50. 45% of ? = 25% of 355 :

- (a) 195
- (b) 176
- (c) 127
- (d) 197.22

51. What is the unit digit in 7^{45} ?

- (A) 1
- (B) 5
- (C) 7
- (D) 9

(18) XBC-401/...../LNC-416(B)

52. The unit digit in the product $(784 \times 618 \times 917 \times 463)$ is :

- (A) 2
- (B) 3
- (C) 4
- (D) 5

53. Three numbers are in the ratio of 3 : 4 : 5 and their L. C. M. is 600. Their H. C. F. is :

- (A) 40
- (B) 50
- (C) 32
- (D) 12

54. A dice is thrown. What is the probability that the number shown on the dice is a number more than 4 ?

- (A) $1/2$
- (B) $1/3$
- (C) $1/5$
- (D) $2/3$

55. A dice is thrown. What is the probability that the number shown on the dice is an even number ?

- (A) $1/3$
- (B) $1/5$
- (C) $1/2$
- (D) $2/3$

(19) XBC-401/...../LNC-416(B)

56. The difference between the ages of the Monu and Sonu is 6 years. Twelve years ago, the Sonu was thrice as old as Monu. The present age of the Sonu :

- (A) 18 years
- (B) 21 years
- (C) 22 years
- (D) 23 years

57. 20 men can do a piece of work in 25 days. How many men are needed to complete the same work in 50 days ?

- (A) 10
- (B) 15
- (C) 8
- (D) 12

58. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can they do the work if working together ?

- (A) 8 days
- (B) 10 days
- (C) 12 days
- (D) 18 days

(20) XBC-401/...../LNC-416(B)

59. A is twice as good as B, if together they can complete a piece of work in 4 days. In how many days can B alone complete the same work ?
(A) 9
(B) 12
(C) 15
(D) 18
60. Mohan and Sohan can complete a work in 20 days and 30 days respectively. Both of them started doing the work and Mohan left after six days. In how many more days can Sohan complete the remaining work ?
(A) 8
(B) 12
(C) 13
(D) 15
61. Tap A can fill a tank in 12 minutes and another leakage B can empty the tank in 6 minutes. If the tank is already full and both A & B are opened, the tank will be :
(A) Filled in 8 minutes
(B) Emptied in 8 minutes
(C) Filled in 12 minutes
(D) Emptied in 12 minutes

(21) XBC-401/...../LNC-416(B)

62. A man goes to a place with 24 kmph and comes with a speed of 36 kmph. Find the average speed in whole journey
(A) 26 kmph
(B) 28.80 kmph
(C) 30 kmph
(D) 32 kmph
63. Raman walks from his house at 5 kmph and reaches his office 10 min. late. If the speed had been 6 kmph he would have reached 15 min early. The distance of his office from his house :
(A) 10 km
(B) 12 km
(C) 12.5 km
(D) 15 km
64. In a km race, P beats Q by 100 m and Q beats R by 200 m. By how many metres does P beat R in the same race ?
(A) 280 m
(B) 300 m
(C) 301 m
(D) 250 m

(22) XBC-401/...../LNC-416(B)

65. Two trains of lengths 210 m and 180 m respectively are running in opposite directions on parallel tracks. If their speeds be 50 km/h and 58 km/h respectively, in what time will they cross each other ?
(A) 22 sec
(B) 15 sec
(C) 30 sec
(D) 13 sec
66. In a 100 m race, A gives a start of 10 m to B. Despite this, A wins the race by 10 m. What is the ratio of the speed of A and B ?
(A) 3 : 2
(B) 5 : 4
(C) 5 : 3
(D) 5 : 6
67. Two pipes can fill a tank in 2 hours and 6 hours. If two pipes are operate simultaneously, in how much time will the tank be filled ?
(A) 1.2 hr.
(B) 1 hr. 10 min.
(C) 1.3 hr.
(D) 1 hr. 30 min.

(23) XBC-401/...../LNC-416(B)

68. M and N can fill a tank in 6 hours and 8 hours. While L empties the full tank in 12 hours. If all the three are operate simultaneously, in how much time will the tank be filled ?
(A) 3 hours
(B) 3 hours 48 min
(C) 4 hours
(D) 4 hours 48 min
69. At present Ram's age is thrice of Shyam's age. Eight years hence the respective ratio between Ram and Shyam's age will be 22 : 11. What is Ram's age four years from now ?
(a) 16 years
(b) 18 years
(c) 28 years
(d) 24 years
70. In an election of two candidates, the candidate who got 43% of total votes get rejected by 560 votes. Find the total number of votes :
(A) 4000
(B) 3500
(C) 4800
(D) 3200

(24) XBC-401/...../LNC-416(B)

71. Rahul spends 20% of his income on house rent and 25% of the remaining on other items. If he saves ₹ 3,600. Find the total income of Rahul :
- (A) ₹ 4,500
(B) ₹ 5,000
(C) ₹ 6,000
(D) ₹ 8,000
72. Two numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is :
- (A) 2 : 5
(B) 3 : 5
(C) 4 : 5
(D) 6 : 7
73. A sum of money is to be distributed among A, B, C and D in the proportion of 5 : 2 : 4 : 3. If C gets ₹ 1,000 more than D, what is B's share ?
- (A) ₹ 500
(B) ₹ 1,500
(C) ₹ 2,000
(D) ₹ 2,500

(25) XBC-401/...../LNC-416(B)

74. The smallest fraction which each of $\frac{5}{21}$, $\frac{7}{9}$ and $\frac{5}{9}$ divide exactly is :
- (a) $\frac{35}{3}$
(b) $\frac{25}{7}$
(C) $\frac{25}{33}$
(d) $\frac{33}{7}$
75. A number when divided by 296 leaves 75 as remainder. When the same number is divided by 37, the remainder will be :
- (A) 1
(B) 2
(C) 8
(D) 11
76. The cost price of 20 articles is the same as the selling price of X articles. If the profit is 25%, then the value of x is :
- (A) 15
(B) 16
(C) 18
(D) 25

(26) XBC-401/...../LNC-416(B)

77. The average weight of 8 person's increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person ?

- (A) 76 kg
(B) 76.5 kg
(C) 85 kg
(D) Data inadequate

$$\frac{20}{2} \times 1 = 10$$
$$20 + 10 = 30$$

78. In a mixture 60 litres, the ratio of milk and water 2 : 1. If this ratio is to be 1 : 2, then the quantity of water to be further added is :

- (A) 20 litres
(B) 30 litres
(C) 40 litres
(D) 60 litres

79. If the number $97215 * 6$ is completely divisible by 11, then the smallest whole number in place of * will be :

- (A) 3
(B) 2
(C) 1
(D) 5

(27) XBC-401/...../LNC-416(B)

80. A shopkeeper expects a gain of 22.5% on his cost price. If in a week, his sale was of ₹ 392, what was his cost price ?

- (A) ₹ 120
(B) ₹ 320
(C) ₹ 372
(D) ₹ 225

81. The least number, which when divided by 12, 16 and 27 leaves in each case of remainder of 15 is :

- (A) 330
(B) 268
(C) 437
(D) None of these

82. Find the lowest common multiple of 20, 24 and 70 :

- (A) 770
(B) 650
(C) 800
(D) 840

83. The average weight of A, B and C is 45 kg. If the average weight of A and B be 40 kg and that of B and C be 43 kg, then the weight of B is :

- (A) 17 kg

(28) XBC-401/...../LNC-416(B)

- (B) 20 kg
(C) 26 kg
(D) 31 kg
84. The ratio of the number of boys and girls in a college is 7 : 8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, what will be the new ratio ?
(A) 8 : 9
(B) 17 : 18
(C) 21 : 22
(D) Cannot be determined
85. The L. C. M. of two numbers is 495 and their H. C. F. is 5. Then the product of the numbers is :
(A) 85
(B) 99
(C) 75
(D) 125
86. The angle between the minute hand and the hour hand of a clock when the time is 8.00, is :
(A) 180°
(B) 175°
(C) 240°
(D) 105°

(29) XBC-401/...../LNC-416(B)

87. One number is selected at random from the first 40 natural numbers. What is the probability that it is a multiple of either 5 or 7 ?
(A) $13/40$
(B) $3/10$
(C) $5/18$
(D) $3/7$
88. In a college, 200 students are randomly selected. 140 like tea, 120 like coffee and 80 like both tea and coffee. How many students like neither tea nor coffee ?
(A) 18
(B) 20
(C) 22
(D) 25
89. A bag contains 6 green apples and 7 red apples. If two apples are drawn from that bag, then what is the probability that one is red and the other is green ?
(A) $6/7$
(B) $7/13$
(C) $5/13$
(D) $6/13$
90. If 1st October is Sunday, then 1st November will be :
(A) Wednesday
(B) Friday
(C) Sunday
(D) Monday

(30) XBC-401/...../LNC-416(B)

91. Which of the following is not a leap year?

- (A) 700
- (B) 800
- (C) 1200
- (D) 2000

$$\begin{array}{r} 4 \overline{) 1996} \\ \underline{4} \\ 1996 \\ \underline{16} \\ 396 \\ \underline{36} \\ 36 \\ \underline{36} \\ 0 \end{array}$$

92. A dice is thrown. Find the probability that the number shown on the dice is not divisible by 3 :

- (A) $\frac{2}{3}$
- (B) $\frac{1}{3}$
- (C) $\frac{1}{4}$
- (D) $\frac{5}{6}$

93. How many times are the hands of a clock at angle in a day ?

- (A) 20
- (B) 40
- (C) 44
- (D) 48

94. Today is Wednesday, what will be the day after 94 days ?

- (A) Monday
- (B) Wednesday
- (C) Friday
- (D) Sunday

(31) XBC-401/...../LNC-416(B)

95. How many times do the hands of a clock coincide in a day ?

- (A) 20
- (B) 21
- (C) 22
- (D) 24

96. The average weight of 16 boys in a class is 50.25 kg and that of the remaining 8 boys is 45.15 kg. Find the average weights of all the boys in the class :

- (A) 47.55 kg
- (B) 48 kg
- (C) 48.55 kg
- (D) 49.25 kg

97. A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is :

- (A) 250
- (B) 276
- (C) 280
- (D) 285

98. A pupil's marks were wrongly entered as 83 instead of 63. Due to that the average marks for the class got increased by half ($1/2$). The number of pupils in the class is :
- (A) 10
 - (B) 20
 - (C) 40
 - (D) 73
99. A motor car takes 50 sec to travel 1 km. What is its speed in kmph ?
- (A) 65 kmph
 - (B) 72 kmph
 - (C) 80 kmph
 - (D) 92 kmph
100. The price of a bike is decreased by 20%. As a result of which the sale increased by 40%. What will be the effect on the total revenue of the shop ?
- (A) 12% loss
 - (B) 12% profit
 - (C) 20% profit
 - (D) 20% loss