

Tribhuvan University
Faculty of Humanities and Social Sciences
Bachelor of Arts in Computer Application
Program (BCA)

Entrance Examination 2074

Full Marks: 100

Time: 2 hrs.

Attempt all questions:

Grammar (40 × 1 = 40)

1. She is very good ----- swimming.
a. at b. on c. of d. for
2. Ravi will have arrived home ----- 8 pm tomorrow.
a. in b. at c. by d. on 3.
3. Rita is ----- honest and diligent student.
a. a b. an c. this d. no article
4. The passive version of "Who did it?" is:
a. Who was it done?
b. Who was it done by?
c. Who was done it?
d. Who had it done by ?
5. We had to stop ---- the entrance for the security check.
a. in b. on c. at d. for
6. Using a ----- cleaner is the best way for avoiding the dust pollution.
a. vaccum b. vacume
c. vacuum d. vacuume
7. The plural form of "ox" is:
a. oxen b. oxes
c. oxez d. none
8. The feminine form of deer is:
a. deeress b. doe
c. stag d. none
9. If I had known about your arrival, I ----- to receive you at the airport.
a. would come b. would came
c. would have come d. had come
10. At midnight, all the goats were -----.
a. bleating b. howling
c. roaring d. mowing
11. The question tag of "They have already arrived," is
a. Have they? b. Haven't they?
c. Weren't they? d. Did they?
12. Please ----- the cigarette. It irritates me.
a. put down b. put out
c. put away d. put in
13. As Gretel's father could not do anything, he gave-----.
a. away b. out
c. in d. into
14. I have eaten nothing for hours. I am ---- hungry.
a. quiet b. quit
c. quite d. quit
15. The synonym of recurring is:
a. occurring repeatedly
b. happening rarely

- c. occurring once a week
d. occurring seldom
16. The antonym of "on" is:
a. of b. un c. off d. out
17. ----- he was very popular among common people, he could not win the election.
a. Because b. So
c. Although d. Therefore
18. The indirect speech of "Are you sure? She said to me", is:
a. She asked me if I was sure.
b. She wanted to know was I sure.
c. She inquired if I am sure.
d. She asked him if I was sure.
19. In the night bus yesterday, I had my purse -----.
a. steal b. stole
c. stolen d. to steal
20. I am looking forward to You very soon again.
a. see b. seen
c. seeing d. be seen
21. I bought this pen form the store.
a. stationery b. stationary
c. stationary d. stantianory
22. This bed is not for two people to sleep in.
a. as wide as b. wide enough
c. wider enough d. quite wider
23. The fault in the engine is this time than it was the last time.
a. More serious b. serious
c. very serious d. serious than
24. You will find the photograph of mine
a. at b. on c. of d. with
25. Reeta can dance of all in this class.
a. The best b. better
c. best d. more better
26. Hurry up and use the fire the house is on fire.
a. extincor b. extinguisher
c. extinguishing d. extinguish
27. The tag question of "I am an engineer." is :
a. Aren't I? b. am not I?
c. Don't I? d. Am not I?
28. I am in a state of dilemma. That means I am
a. dazzled b. tired
c. puzzled d. not sure
29. She undergoes a strange experience of seeing something not present in front of her. In other words, she is suffering from
a. hallucination b. bronchitis
c. tonsillitis d. psychosis
30. She can play tennis, but she is at it than her friend.
a. badly b. worse
c. more badly d. worsely

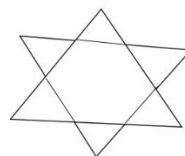
Old Question For BCA Entrance Preparation

31. Sulav sold his plot of land in the village so that he buy a new house in the city.
a. could b. can
c. need d. would
32. If you teased the dog. It bite you.
a. will b. would
c. did d. can
33. She is so that she easily catches cold.
a. sincere b. sensitive
c. sensible d. sober
34. The synonym of purgatory is:
a. Polluted city b. hell
c. Heaven d. sky
35. The synonym of creek is:
a. pond b. late
c. rivulet d. tributary
36. No sooner had I left the room, the bomb exploded.
a. had b. could be
c. would be d. none of the above
37. Sarita plays chess than her sister.
a. More better b. better
c. well d. best
38. I am looking forward to you soon.
a. seeing b. see
c. be seen d. seen
39. Because of the heavy rain they decided to call The cricket match.
a. out b. up c. off d. down
40. Cholera broke in Jajarkot ten years ago.
a. out b. down c. up d. into

Mathematics (50 × 1 = 50)

41. Which one of the following number has a remainder of 4 when it is divided by 6?
a. 8 b. 12 c. 22 d. 29
42. The sum of the product and quotient of 4 and 4 is
a. 16 b. 15 c. 8 d. 17
43. The average of all even numbers between -4 and 5 is
a. 1 b. 0.5 c. -1 d. none of these
44. The sum of first five prime numbers is:
a. 11 b. 18 c. 26 d. 28
45. The value of $\sum_{n=10}^{10} (-1)^n$ is:
a. 1 b. -1 c. 10 d. 0
46. The product of two consecutive even number is 224. Then the numbers are:
a. 16, 18 b. 12, 14
c. 14, 16 d. 18, 20
47. If 5 is added to the square of a number, then the result is 14. What is the value of that number?
a. 3 b. 5 c. 7 d. 9
48. If three spoons equals to one glass, two glasses equals to one plate, then how many spoons equals to one plate?
a. 3 b. 6 c. 9 d. 2
49. If a matrix is of order 5 X 7, then each column will containelements.

- a. 5 b. 12 c. 35 d. 7
50. If the equation are $3x + 4y = 7$ and $4x - y = 3$ after solving these equations the value of x and y will be:
a. 1,1 b. 1,2 c. 2,1 d. 2,2
51. What is the value of x in series 1, 9, 25, x, 81, 121?
a. 100 b. 36 c. 49 d. 64
52. If $a + b = c$, then what is the average value of a, b and c?
a. $\frac{(a+b)}{3}$ b. $\frac{c}{3}$ c. $\frac{2c}{3}$ d. $\frac{c}{3}$
53. If x in an integer and $y = -2x - 8$, what is the least value of x for which y is less than 9?
a. -8 b. -9 c. -10 d. -11
54. The slope of line which equation is $2x - 4y = 9$ is:
a. 2 b. $1/2$ c. $-1/2$ d. 3
55. What is the slope of horizontal line?
a. >1 b. <0 c. 0 d. 1
56. The difference between $3/5$ of 80 and 30% of 80 is:
a. 20 b. 14 c. 15 d. 24
57. Gautam spent Rs. 40/-, which is 5% of his daily wage, then his total daily wage is:
a. Rs.400/- b. Rs.600/-
c. Rs.800/- d. Rs. 1000/-
58. If 1254376 represents the CENTURY, then what represents 735?
a. NUT b. RUT
c. RUN d. YET
59. Find the missing value in $\begin{bmatrix} 2 & 7 & 6 \\ 9 & 5 & 1 \\ 4 & 3 & ? \end{bmatrix}$.
a. 5 b. 8 c. 7 d. 9
60. There are 48 students in a computer class. If number of boys are twice than girls, then how many girls are there?
a. 16 b. 18 c. 32 d. 28
61. Find the number x, which is equal to (80% of x) plus 5.
a. 20 b. 30 c. 40 d. 25
62. If the ratio of two numbers is 2:3 and sum of these numbers is 30, then which are these numbers?
a. 14, 16 b. 10, 20
c. 12, 18 d. 18, 12
63. If the age of five girls are 15, 16, 17, 18, 19 respectively then what is the average age of girls?
a. 15 b. 17 c. 18 d. 19
64. How many triangles in this figure?



- a. 6 b. 7 c. 8 d. 9

Old Question For BCA Entrance Preparation

65. What is the value of $\cos 60^\circ$?
a. 1 b. $\frac{1}{2}$ c. 0 d. $\frac{\sqrt{3}}{2}$
 66. Find the value of x in series 1, 1, 2, 3, 5, 8, 13, x.
a. 21 b. 22 c. 19 d. 23
 67. If 'n' is an integer, which of the following must be even?
a. $n + 1$ b. $n + 2$ c. $2n + 1$ d. $2n$
 68. The largest prime factor of 255 is:
a. 45 b. 25 c. 17 d. 5
 69. The sum of first n natural number is:
a. $\frac{n(n+1)}{2}$ b. $\frac{n(n+1)(2n+1)}{2}$
c. $\frac{(n+1)^2}{2}$ d. none of these
 70. The root of the equation $3x^2 - 8x + 16 = 0$ are
a. real & equal
b. real & unequal
c. imaginary & unequal
d. none of these
 71. If $x + y = 12$ and $x - y = 6$ then, the value of $x^2 - y^2$ is:
a. 18 b. 36 c. 60 d. 72
 72. If $x - 5 = 2$, then the value of $x + 12$ is:
a. 15 b. 17 c. 19 d. 18
 73. The value when simplified $\frac{6^4 - 6^3}{5}$ is:
a. $1/5$ b. 6^3 c. $6/5$ d. 6^4
 74. If $4/a + 4/a + 4/a + 4/a = 16$ then, 4a is:
a. 4 b. 8 c. 12 d. 16
 75. The slope of line $\frac{x}{a} + \frac{y}{b} = 1$ is:
a. $-\left(\frac{a}{b}\right)$ b. $-\left(\frac{b}{a}\right)$ c. ab d. $-\left(\frac{1}{ab}\right)$
 76. If $x = 4y$, what percent of $2x$ is $2y$?
a. 20% b. 40% c. 30% d. 25%
 77. If the cost of 9 kg sugar is Rs. 270/-, how much sugar can be purchased for Rs. 390/-?
a. 11 b. 12 c. 13 d. 14
 78. If 3 bananas cost 50 cents, how many bananas can be bought for 20 dollars?
a. 120 b. 115 c. 110 d. 130
 79. If $5:7 = 15:x$, then the value of x is:
a. 35 b. 21 c. 27 d. 18
 80. By selling 150 apples, the seller gains the selling price of 30 apples, then gain percentage is:
a. 25% b. 30% c. 12% d. 20%
 81. A vendor purchases lemons at Rs. 5/- per lemon, at what price vendor will sell lemon to gain 20% profit?
a. Rs. 4/- b. Rs. 5/-
c. Rs. 6/- d. Rs. 7/-
 82. What is the population doubling time if population growth rate is 2% per annum?
a. 50yrs b. 30yrs
c. 40yrs d. none of these
 83. The cardinal number of a vowel set $V = \{a, e, i, o, u\}$ is:
a. 4 b. 5 c. 6 d. 7
 84. If $\log_a 81 = 4$, then the value of 'a' is:
a. 4 b. 3 c. 5 d. none of these
 85. The value of $\frac{\sqrt{18}}{\sqrt{72}}$ is:
a. a rational number
b. an irrational number
c. an imaginary number
d. none of these
 86. If $5/7$ of a number is 1025, then $3/7$ of number is:
a. 735 b. 430 c. 615 d. 560
 87. The number of seconds in $1\frac{1}{3}$ hours is:
a. 4800 b. 4700 c. 4900 d. 5000
 88. The 4m wide carpet is used for carpeting a room of 8m long and 3m wide, then what is the length of carpet?
a. 5m b. 6m c. 2m d. 3m
 89. Hari ranks seventh from the top and twenty sixth from the bottom in a class. Then the total number of students in a class are:
a. 36 b. 35 c. 31 d. 32
 90. If three girls write 3 pages in 3 minutes, in how many minutes can one girl write one page?
a. 4 min b. 5 min c. 3 min d. 6 min
- General Knowledge ($10 \times 1 = 10$)
91. Nepal was hit by the 7.8 magnitude Earthquake on:
a. 2072 Baisakh 10 b. 2072 Baisakh 11
c. 2072 Baisakh 12 d. 2072 Baisakh 13
 92. The new constitution of Nepal, "Nepal Ko Sambidhan" was released on:
a. 2072 Asoj 4 b. 2072 Asoj 3
c. 2072 Asoj 2 d. 2072 Asoj 1
 93. Who is the writer of Novel Ek Chihan?
a. Hridaychandra Singh Pradhan
b. Krishnachandra Singh Pradhan
c. Bijay Bahadur Malla
d. Parijat
 94. Kusti is played on:
a. Ground b. Court
c. Ring d. Akhada
 95. Who is considered as the father of computer?
a. Charles Babbage b. Bill Gates
c. Mark Zuckerberg d. Chris Hughes
 96. Which one of the following is the database program?
a. MySQL b. MS-Excel
c. MS-Word d. MS-Outlook
 97. What is the full form of LCD?
a. Light and Clear Display
b. Liquid Cristal Display
c. Light Cristal Display
d. Liquid Clear Display
 98. Which is the first bank in Nepal?
a. Nepal Bank Limited
b. Rastriya Baniyya Bank
c. Nepal Investment Bank

- d. Nepal Rastra Bank
99. Which of the following field is not awarded by Noble Prize?
- a. Computer Science b. Physics
c. Economics d. Literature
100. How many provinces (Pradesh) are in Nepal according to the new constitution?
- a. 5 b. 7 c. 8 d. 9

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Grammar (40 × 1 = 40)

Circle the correct answer from among the given options

1. The danger of volcanoes not to be taken lightly.
a. Must b. might
c. has d. have
2. Ramesh here for the last seven years.
a. Worked b. is working
c. Has worked d. works

Supply the correct tag for the following statement.

3. Let us go,
a. Shall we? b. Will we?
c. Do we? d. Don't we?
4. Two ladies had hand bags stolen at the Kathmandu Mall.
a. itsb. her c. their d. they
5. They are as lucky as
a. we b. our c. ourselves d. us
6. Sincere people abide their promise.
a. by b. of c. at d. on
7. The new manager will his position on August 30
a. take off b. take out
c. take over d. take after

Choose the correct alternative for underlined phrase in the given sentence.

8. He got a Lion's share of the profits.
a. No share at all
b. Greater share of a things
c. Very small part
d. Little profit
9. There is someone in the room I certainly heard a great noise.
a. And b. but c. for d. so
10. Neither of them a problem.
a. Anticipate b. anticipates
c. Have anticipated d. are anticipating

Choose the correct passive voice for the following sentence.

11. We celebrate Democracy Day on Falgun seven.
a. Democracy Day is celebrated on Falgun seven by us.
b. Democracy Day was celebrated on Falgun seven by us.
c. Democracy Day has been celebrated on Falgun seven by us.
d. Democracy Day had been celebrated on Falgun seven by us.

13. I don't think I be able to go.
a. will b. should
c. can d. could

14. That which cannot be divided.
a. Indelible b. indivisible
c. Insoluble d. indefensible
15. Which of the following words is an abstract noun?
a. Desk b. fear c. class d. needle
16. Which of the following words does not have a suffix?
a. Helpless b. goodness
c. Fearless d. courage
17. The opposite meaning of 'accepted' is,
a. Liked b. noted
c. Provided d. rejected
18. Choose the word nearest in meaning to 'emulate'.
a. Imitate b. Deny
c. Discuss d. Reject

19. Raman is a versatile boy.
a. Bad b. clumsy c. gifted d. lazy

20. Select the correct antonym for 'segregation'.
a. Appreciation b. integration
c. Cohesion d. co-ordination

21. The price of consumer goods _____ increasing.
a. are b. is c. were d. has been

- Each of the women owns her home.
- All of the women own their own homes.
- Here are two wrenches and a hammer.
- Here is a hammer and two wrenches.

- June 27, 2018, is a day I will never forget.
- Some people who go to school, enjoy the social life.
- He was late for dinner, we decided to eat without him.
- We were glad to see him, because he had brought gifts.

24. Choose the part participle of the verb quit.

a. quitted	b. quit
c. quitting	d. has quit

25. We spent a evening together.

35. Which of the following word is an adverb?
a. good b. bad
c. well d. melt

Recent advances in science and technology have made it possible for geneticists to find out abnormalities in the unborn foetus and take remedial action to rectify some defects which would otherwise prove to be fatal to the child. Though genetic engineering is still at its infancy, scientists can now predict with greater accuracy a genetic disorder. It is not yet an exact science. Since they are

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not in a position to predict when to change the genetic order of the gene in germs, they are optimistic and are holding out that in the near future they might be successful in achieving this feat. They have however, acquired the ability in manipulating tissue cells. Still, genetic misinformation can sometimes be damaging for it may adversely affect people psychologically. Genetic information may lead to a tendency to brand some people as inferiors. Genetic information can therefore be abused and its application in deciding the sex of the foetus and its subsequent abortion is now hotly debated on ethical lines. But on this issue, geneticists cannot be squarely blamed, through this charge has often been leveled at them. It is mainly detecting disorders, but scientists hope to reduce the costs when technology becomes more advanced in rich countries take the USA, UK and Japan. It remains to be seen if in the future this science will lead to the development of a race of supermen who will be able to obliterate disease from the world.

36. Which of the following is the same in meaning as in the word 'obliterate' used in the passage?
a. Wipe out b. Wipe off
c. Very Literate d. Remove
37. Which of the following is term regarding the reasons for progress in genetic engineering?
a. Poor countries need genetic information.
b. It has become popular subject.
c. Economically and scientifically advanced countries can provide infrastructure for such research.
d. Human beings are interrelated in hereditary.
38. According to the passage the question of abortion is,
a. hotly debated b. ignored
c. unanswered d. undecided
39. Which of the following is not true about the genetic engineering?
a. Acquired ability to detect disorder in unborn babies.
b. Possibility of abuse.
c. Increased tendency to manipulate gene cells.
d. Acquired ability to manipulate tissue cells.
40. According to the author of the passage, the present state of knowledge about heredity has made geneticists.
a. reckless b. optimistic
c. introspective d. arrogant

Group B [Mathematics]

41. A number is divided by 10 gives a remainder 7. If the same number is divided by 5, then what will be the remainder?
a. 1 b. 2 c. 3 d. 4
42. Which one of the following value of 'n' gives the negative result on $n^2 - 15$?
a. 7 b. 5 c. 3 d. 4

43. If 'n' is an integer, then which one of the following expression must be even?
a. $n(n + 1)$ b. $n^2 + 1$
c. $n(n + 2)$ d. $n(n + 4)$
44. What is the sum of first five prime numbers?
a. 18 b. 25 c. 26 d. 28
45. If you save 1 paisa today, 2 paisa next day, 4 paisa the succeeding day and so on, then what is the total saving on the week?
a. 127 paisa b. 64 paisa
c. 256 paisa d. 128 paisa
46. What is the value of $\sum_{n=10}^{10} (-1)^n$?
a. 0 b. -1 c. 1 d. 10
47. If 6 is subtracted from the cube of a number and the result is 21, then what is the value of that number?
a. 2 b. 3 c. 4 d. 5
48. If the product of two consecutive even number is 288, then what are these numbers from following?
a. 14, 12 b. 14, 16
c. 16, 18 d. 22, 24
49. The total of ages of A and B is 3:5, if B is 8 years elder to A, then what is the age of the A?
a. 12 yrs. b. 15 yrs.
c. 18 yrs. d. 21 yrs.
50. If the root of the equation $x^2 - 6x + c = 0$ is 3, then what is the value of c?
a. 3 b. 6 c. 8 d. 9
51. Which one of the following is true for the roots of the equation $x^2 - 8x + 16 = 0$?
a. Imaginary & unequal
b. Rational & unequal
c. real & equal
d. real & unequal
52. If the matrix is of order 5×3 , then how many elements will be single column?
a. 5 b. 3 c. 4 d. 15
53. If $x - 5 = 1$, then what is the value of $x + 7$?
a. 5 b. 7 c. 8 d. 13
54. If $5x + 13 = 31$, what is the value of $\sqrt{(5x + 31)}$?
a. 5 b. 6 c. 7 d. 8
55. What is the correct value of $\frac{5^4 - 5^3}{4}$.
a. 5^3 b. $\frac{1}{5}$ c. 5^4 d. $\frac{5}{4}$
56. If $a^x = b$, $b^y = c$ and $c^z = a$, then what is the value of xyz ?
a. c b. a c. b d. 1
57. If $6p + 6q = 36$, then what is the average value of a and b?
a. 2 b. 3 c. 4 d. 5
58. If $p + q = r$, then what is the average value of p, q and r?
a. $\frac{r}{3}$ b. $\frac{p+q}{3}$ c. $\frac{2r}{3}$ d. $\frac{r}{2}$
59. What is the slope of the line whose equation is $2x - 4y = 9$?
a. 1 b. $\frac{1}{2}$ c. 2 d. 3

Old Question For BCA Entrance Preparation

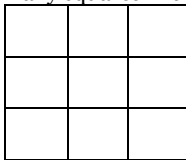
60. Which one of the following is correct for the acute angle of right angled triangle?
a. Complementary b. supplementary
c. Adjacent d. equal
61. There are 60 students in a class. If 60% of them are girls, then how many boys in the class?
a. 24 b. 36 c. 18 d. 40
62. Last year Hari was 4 feet tall, and this year he is 5 feet tall. What is the percent increase of his height?
a. 10% b. 15% c. 20% d. 25%
63. What is the difference between $\frac{3}{5}$ of 80 and 30% of 80?
a. 12 b. 18 c. 24 d. 20
64. The cost of 6 pens is equal to the cost of the 10 pencils. If the cost of 4 pencils is Rs. 120, then what is the cost of 4 pens?
a. 100 b. 200 c. 300 d. 400
65. If the cost of 7 kg sugar is Rs. 210, how much sugar can be purchased for Rs. 330?
a. 11kg b. 12kg c. 13kg d. 14kg
66. Ganga can read 48 pages per hour. At this rate, how many pages she can read in 80 minutes?
a. 60 b. 72 c. 48 d. 64
67. Two numbers are in the ratio of 6:7 and their sum is 117, then what are these numbers?
a. 56, 58 b. 63, 54
c. 54, 63 d. 48, 56
68. If $5:7 = 15:x$, then what is the value of x?
a. 18b. 21 c. 24 d. 35
69. If cost price of 8 pens and selling price of 10 pens is equal, then what is loss percentage?
a. 20% b. 15% c. 10% d. 25%
70. If the 20% discount is given on computer book costing Rs. 300, then what will be selling price?
a. Rs. 240 b. Rs. 220
c. Rs. 260 d. Rs. 250
71. A watch is bought at Rs. 250 and sold at Rs. 300, then what is the profit percentage?
a. 10% b. 15% c. 20% d. 25%
72. What is the population doubling time if the population growth rate is 2% per annum?
a. 60 yrs. b. 50 yrs.
c. 40 yrs. d. 30 yrs.
73. What is the rate percentage per annum that a sum of money trebles itself in 25 years?
a. 2% b. 4% c. 6% d. 8%
74. What is the cardinal number of a vowel set $V = \{a, e, i, o, u\}$?
a. 4 b. 5 c. 6 d. 7
75. What is the minimum value of $n(P \cap Q)$? When $n(U) = 100$, $n(P) = 70$, and $n(Q) = 45$?
a. 15 b. 55 c. 30 d. 45

76. Which one of the following is true for prime number?
a. no factors b. only one factor
c. only two factors d. more than two factors
77. Which one of the following interval notation is correct for $\{x: 5 \leq x \leq 15\}$?
a. $[5, \infty]$ b. $[\infty, 15]$
c. $[6, 14]$ d. $[5, 15]$
78. What is the value of 'x' when it is multiplied by 6 and added to 3 times its own number gives 63?
a. 6 b. 7 c. 8 d. 9
79. What is the value of $(\sqrt{5} + \sqrt{5})^2$?
a. 20 b. 25 c. 10 d. 60
80. What is the number of seconds in $1\frac{1}{3}$ hour?
a. 1200 sec b. 2400 sec
c. 3600 sec d. 4800 sec
81. In a kilometer race A beats B by 100 meters and B beats C by 150 meters. In the same race, by how many meters does A beats C?
a. 150 m b. 100 m
c. 250 m d. 200 m
82. The area of 4 walls of square room is $120 m^2$. If the height is 5 m, then what is the area of its floor?
a. $26 m^2$ b. $56 m^2$
c. $25 m^2$ d. $36 m^2$
83. What is the probability of death?
a. 1 b. $\frac{1}{2}$ c. 0 d. ∞
84. What is the chance to give the birth by a pregnant lady on Tuesday?
a. $\frac{3}{7}$ b. $\frac{1}{7}$ c. 1 d. $\frac{1}{2}$
85. If the BACHELOR is written as 12345678, then how will BCA be written?
a. 123 b. 432 c. 147 d. 132
86. Which one of the following is missing alphabet in given table?

T	Q	N
P	O	S
M	?	R

- a. L b. U c. S d. V
87. Saru ranks 8th from the top and 20th from the bottom in class, then how many students are there in class room?
a. 28 b. 27 c. 20 d. 29
88. Find the value of 'x' in series 1, 1, 2, 3, 5, 8, 13, x?
a. 21 b. 22 c. 23 d. 20

89. How many squares in the following figure?



- a. 13 b. 14 c. 15 d. 16

90. What is the value of $\cos 0^\circ$?

- a. $\frac{1}{2}$ b. $\frac{1}{\sqrt{2}}$ c. 0 d. 1

Group C [General Knowledge]

91. When did the new constitution of Nepal "Nepal Ko Sambidhan" was released?

- a. 2072 Ashoj 4 b. 2072 Ashoj 3
c. 2072 Ashoj 2 d. 2072 Ashoj 1

92. Who is known as "Father of Computer"?

- a. Charles Babbage b. Bill Gates
c. Mark Zuckerberg d. John V Neumann

93. Which one of the following discipline is not awarded by noble prize?

- a. Literature b. Economics
c. Physics d. Computer Science

94. Which one of the following belongs to SSD?

- a. RAM b. ROM
c. Cache Memory d. Mass Storage

95. Who won the FIFA World Cup 2018 held in Russia?

- a. England b. Croatia
c. France d. Germany

96. Which one of the following is not an output device?

- a. OCR b. Plotter
c. Monitor d. Printer

97. What is the scientific name of human?

- a. Rana Tigrina b. Homosepian
c. Felis Catus d. Rattus

98. Which one of the following is the deepest river of the Nepal?

- a. Karnali b. Koshi
c. Mahakali d. Gandaki

99. Who was the first prime minister of Nepal?

- a. Janga Bahadur Rana
b. Matrika Prasad Koirala
c. Bhimsen Thapa
d. Mathabar Sing Thapa

100. Who is the writer of the Nepal novel "Basain"?

- a. Lil Bahadur Kshetri
b. Ramlal Joshi
c. Gopal Prasad Rimal
d. Lokendra Bahadur Chand

Tribhuvan University

Faculty of Humanities and Social Sciences Bachelor of Arts in Computer Application Program (BCA)

Entrance Examination 2076

Full Marks: 100

Time: 2 hrs.

Attempt all questions:

Grammar (40 × 1 = 40)

1. When did you on the last stage of your journey?

- a. set to b. set out
c. set up d. set off

2. Jenny always when you least expected her.

- a. showed up b. shut up
c. showed off d. shut down

3. It is a 14 hour flight, so it will give me a change my reading.

- a. catch up on b. catch on
c. catch up with d. catch out

4. Mrs. MacDonald is having the old cottage

- a. do for something b. do without
c. do over d. do with

5. The new commercial very well.

- a. gets away b. gets across
c. gets about d. gets along

6. I'm still trying to common cold.

- a. shake off b. shake up
c. shack up d. show off

7. Take up a brisk walk to a good appetite.

- a. work out b. work up
c. wrap up d. write off

8. The synonym of "ameliorate" is:

- a. finish b. appreciate
c. improve d. affluent

9. Which one is appropriate synonym of "squalor".

- a. miser b. indolent
c. hinder d. shabby

10. Give an exact synonym of "hallowed".

- a. mellowed b. sacred
c. decayed d. mixed

11. The antonym of "cynical" is:

- a. rustic b. friendly
c. hostile d. simple

12. Give the antonym of "corpulent".

- a. bulky b. skinny
c. obese d. fat

13. Killing of one's sister is called

- a. regicide b. genocide
c. sororicide d. suicide

14. Killing of snake is called:

- a. apicide b. avicide
c. herpeticide d. filicide

15. Badminton is played on a court whereas boxing in a

- a. court b. track

- c. ring d. arena
16. A nun lives in a whereas a hermit in a
a. prison, sty b. convent, hermitage
c. asylum, stable d. cottage, inn
17. The bell but bracelets jingles.
a. tolls b. jingles
c. whistle d. rattles
18. What is the opposite of "pompous"?
a. humble b. rough
c. cheap d. unique
19. One who abandons his religious faith is a/an
a. postate b. atheist
c. secular d. credulous
20. Repetition or writing word for word is putting it
a. pedantic b. extempore
c. epilogue d. verbatim
21. Johnson died cancer.
a. by b. in
c. of d. from
22. I hope you will agree me on this issue.
a. to b. on
c. with d. for
23. I am angry your rude manner but not angry you for not helping me.
a. at, with b. with, with
c. to, with d. to, to
24. I know you are looking a job.
a. for b. at c. with d. by
25. This magazine is not useful me as I have no taste in music debates.
a. to b. with c. for d. by
26. She was fined parking her car in a no parking area.
a. for b. on c. in d. at
27. I'm interested in cricket but I'm not very good..... it.
a. in b. with c. at d. about
28. What is the meaning of the phrase "ad interim"?
a. at pleasure b. at will
c. to the extreme d. for the time being
29. A government controlled by the rich is:
a. oligarchy b. aristocracy
c. plutocracy d. democracy
30. We must be early we won't get a seat.
a. otherwise b. yet
c. however d. but
31. Work like a Trojan.
a. treats b. works
c. watches d. sleeps
32. Fit like glove.....
a. fits very well b. loosely fits
c. matches d. dresses
33. Time will tell.
a. no time left
b. old fashioned ideas
c. whether decisions or actions in the present were right or not

- d. future will show
34. A night in the town is full of
a. tasks b. green lights
c. fun and entertainment
d. creativity
35. Dressed up to the nines means.
a. very happy spirit
b. dressed in one's best clothes
c. a routine dress
d. a small chance to bring good luck

Read the following passage carefully and answer the questions given below it.

Sultan Nasiruddin was a wise and just ruler. Everybody sang his praises. He was kind to the poor. He used to distribute money to the poor and the needy. His treasury was full of wealth. In spite of having so much wealth, he did not spend anything on himself. He earned his living by copying the holy book of the Muslims. Though a king, he felt that he must earn his own livelihood. He led a simple life. His wife was forced to do all the household chores. She had to cook food, sweep the floor, make clothes and do many other household duties. At night, she complained of severe pain in her body. She muttered to herself. " My life is so miserable. I am tired of working from morning to evening."

One day while cooking food, she burnt her fingers. She started weeping. On seeing her weeping, Sultan Nasiruddin asked her, " Begum, what is the matter?" The queen started grumbling. " See, I have burnt my fingers. In spite of my being a queen, I have to work like other poor women. Why don't you employ some maid servant?" Sultan Nasiruddin replied, " No, Begum, I earn my livelihood by copying the Koran. My income does not permit me to spend lavishly." The queen was annoyed. She said, " Sultan, for whom is this treasury full? As a king, you must spend on yourself and your family." Sultan Nasiruddin disagreed. He replied, " Begum, you are mistaken. I cannot touch the treasure. It is people's wealth. I am answerable to God. I must earn my livelihood." The Begum was quiet. She was convinced by the Sultan's argument and accepted it willingly.

36. The queen got annoyed because
a. she had burnt her fingers.
b. she was not happy with the Sultan's statement about his own income
c. the Sultan was busy copying the holy book.
d. of the Sultan's undue concern for her.
37. Why did Sultan Nasiruddin not use the money in the treasury for himself?
a. He was afraid that his subjects would accuse him of theft.
b. He had already distributed the money to the poor.
c. He wanted to annoy his Begum.
d. He was convinced that the money belonged to the people.

Old Question For BCA Entrance Preparation

38. The demand of the queen was that the
 a. Sultan should earn his own livelihood.
 b. Money in the treasury should not be distributed to the poor.
 c. Sultan should employ a maid-servant.
 d. Sultan should help her in her household duties.
39. Why was Sultan Nasiruddin popular among his people?
 a. He was devoted to the holy Koran.
 b. He was fair to all and was full of wisdom.
 c. He kept the treasury full of wealth.
 d. He made his wife work like an ordinary woman.
40. What forced the queen to do all the household chores?
 a. The simple life style of the Sultan.
 b. The lack of money in the treasury.
 c. The poor working of the maid servant.
 d. The Sultan's greed for money.

Group B [Mathematics]

$$(50 \times 1 = 50)$$

41. If the slope of line joining (1,2) and (k, -5) is equally inclined with both the axes, then the value of k is
 a. 6 b. -6 c. 3 d. -2
42. What is the value of $\cot 90^\circ$?
 a. 3 b. $\frac{1}{2}$ c. 0 d. 1
43. What is the probability of drawing a queen when one card is drawn randomly from a well shuffled pack of 52 cards? Find the probability of drawing a red queen?
 a. $\frac{1}{26}$ b. $\frac{5}{6}$ c. $\frac{3}{4}$ d. $\frac{15}{36}$
44. If A, B, C are the subsets of a universal set U. Then A-(BUC) is equal to,
 a. (A-B).U(A-C) b. (A-B) $\cap$ (A-C)
 c. (A $\cap$ B)-(A $\cap$ C) d. (A $\cup$ B)-(A $\cup$ C)
45. Of a group of 120 students, 90 takes mathematics and 72 takes statistics. If 10 students neither of two, the number of student taking both subjects are:
 a. 50 b. 45 c. 52 d. 58
46. $-5 < x < 7$ can be written in the absolute value sign as:
 a. $|x - 1| < 7$ b. $|x - 1| < 6$
 c. $|x - 1| < 2$ d. $|x - 1| < -1$
47. If the relation $R = \{(1, 2), (2, 3), (3, 4), (4, 5)\}$ then its range is,
 a. $\{2, 3, 4, 5\}$ b. $\{1, 2, 3, 4\}$
 c. $\{1, 2, 3, 5\}$ d. $\{1, 3, 4, 5\}$
48. The value of $\tan 180^\circ$ is equal to,
 a. 1 b. -1 c. 0 d. ∞
49. $1^2 + 2^2 + 3^2 + \dots + n^2$ is equal to,

- a. $\frac{n(n+1)}{2}$ b. $\frac{n(n+1)(2n+1)}{6}$
 c. $\left(\frac{n+1}{2}\right)^2$ d. None of the above
50. If a matrix $A = \begin{pmatrix} 0 & 5 & -6 \\ -5 & 0 & 2 \\ 6 & -2 & 0 \end{pmatrix}$, then matrix A is known as
 a. Symmetric Matrix
 b. Skew-Symmetric Matrix
 c. Diagonal Matrix
 d. Triangular Matrix
51. The radius of the circle $x^2 + y^2 = 9$ is equal to,
 a. 4 b. 3 c. 5 d. 9
52. The value of $2\sqrt{128} + \sqrt{162}$ is ,
 a. $25\sqrt{2}$ b. $4\sqrt{3}$ c. 0 d. 60
53. If $A = \begin{bmatrix} 1 & 2 \\ 3 & 1 \end{bmatrix}$, then the value of $A^2 - 2A - 5I$ is equal to,
 a. 1 b. -1 c. 2 d. 0
54. What is the half of quarter of 400?
 a. 200 b. 100 c. 50 d. 90
55. Half percent, written as a decimal is,
 a. 0.2 b. 0.02 c. 0.005 d. 0.05
56. The true discount on Rs. 2,562 due 4 months hence is Rs. 122. The rate percent is:
 a. 12% b. 13% c. 14% d. 15%
57. The percentage increase in the area of a rectangle, if each of its sides is increased by 20% is:
 a. 40% b. 42% c. 44% d. 46%
58. AB and CD bisect each other at O. If AD = 6 cm, BC is:
 a. 5.9 cm b. 6 cm c. 4.8 cm d. 7 cm
59. The compound interest on Rs. 30,000 at 7% per annum is Rs. 4347. The period (in years) is:
 a. 2 b. 3 c. 4 d. 8
60. If a man were to sell his chair Rs. 720, he would lose 25% to gain 25%. He would sell it for:
 a. Rs. 1,200 b. Rs. 1,000
 c. Rs. 960 d. Rs. 900
61. Find the percentage gain or loss when the dot pens bought for Rs. 96 per dozen were sold at the rate of 10 for Rs. 90?
 a. 13% b. 20% c. 4% d. 12.5%
62. What is the value of $\cos^2 30^\circ - \sin^2 30^\circ$?
 a. $\frac{1}{2}$ b. $\frac{\sqrt{3}}{2}$ c. $\frac{1}{\sqrt{3}}$ d. $-\frac{1}{2}$
63. How many stones each of area 0.16 cm square are required for paving a courtyard 5.5 m long and 4.8 m wide?
 a. 60 b. 100 c. 50 d. 165
64. Which one is the formula for area of equilateral triangle?
 a. $\frac{\sqrt{3}}{4a^2}$ b. $\frac{1}{2} \times b \times h$
 c. $\sqrt{(s-a)(s-b)(s-c)}$
 d. None of these

Old Question For BCA Entrance Preparation

65. The commission of Rs. 5,600 at the rate of 3.5% is:
a. Rs. 196 b. Rs. 440
c. Rs. 360 d. Rs. 1,000
66. The discount percent of marked price is Rs. 5,800 and discount amount is Rs. 696 then the discount percent is,
a. 12% b. 20%
c. 5% d. 38%
67. What is the tax rate if original price is Rs. 2,000 and selling price is Rs. 2,400?
a. 20% b. 17.39%
c. 35% d. 10%
68. The sum of the ages of father and his son is 52 years. Eight years ago the father was eight times as old as his son, the present age of son is,
a. 10 years b. 20 years
c. 12 years d. 15 years
69. If 4 is subtracted from a square of a number, its result is 21. The number is,
a. 5 b. 4 c. 6 d. 3
70. The radius of the circle $x^2 + y^2 - 12x - 4y = 9$ is equal to,
a. 18 b. 7 c. 10 d. 2
71. The system of linear equation will be consistent and independent if they have,
a. exactly one solution
b. more than one solution
c. no solution
d. none of these
72. Let a and b are two numbers on the real line. If $(a, b] = \{x: a < x \leq b\}$ is known as,
a. left open interval
b. right open interval
c. closed interval
d. open interval
73. Let $f: \mathbb{R} \rightarrow \mathbb{R}$ and $g: \mathbb{R} \rightarrow \mathbb{R}$ be defined by $f(x) = 2x^2 - 3$, $g(x) = 3x + 2$. Then the composite functions $\text{gof}(x)$ is,
a. $9x + 8$ b. $2x + 2$
c. $2x + 1$ d. $6x^2 - 7$
74. A square matrix A is said to be singular if its determinant is equal to,
a. 1 b. 0
c. -1 d. none of these
75. The system of equations $4x - 3y = -6$, $-4x + 2y = 16$ is,
a. consistent and dependent
b. inconsistent and independent
c. inconsistent and dependent
d. consistent and independent
76. Ratio of 2 km to 600 m should be,
a. 2:7 b. 2:8 c. 2:3 d. 10:3
77. In $a : b = c : d$, then b and c are called,
a. antecedent b. extreme
c. consequent d. mean
78. If $b^2 - 4ac < 0$ then the roots of $ax^2 + bx + c = 0$ are:
a. equal b. rational c. irrational d. imaginary
79. A polygon having 10 sides is called,
a. decagon b. heptagon
c. quadrilateral d. hexagon
80. Linear equation is also known as,
a. simultaneous equation
b. second degree equation
c. first degree equation
d. zero degree equation
81. Two straight lines in same plane which never meet are called,
a. angles b. transversal lines
c. vertex d. parallel line
82. Degree of polynomial $f(x) = ax^2 + 2$ ($a \neq 0$)
a. 2 b. -2 c. 1 d. -3
83. If A, G, H are arithmetic, geometric and harmonic means between a and b,
a. in G.P b. in A.P
c. real numbers d. in H.P
84. In selling an article for Rs. 76, a shopkeeper gain 52%. The gain by selling that for Rs. 74 is
a. 45% b. 48% c. 49% d. 50%
85. Ram bought oranges at 6 for Rs. 10 and sold them at 4 for Rs. 6, find his loss percent
a. 12% b. 8% c. 6% d. 10%
86. Which of the following is incorrect?
a. $A.M = ab$ b. $a b ab G M + = 2$
c. $2 \cdot a b H M + =$ d. none of these
87. By giving a discount of 10% on the marked price of Rs. 1,100 of a mobile phone a dealer gains 10%, then the cost price is
a. Rs. 950 b. Rs. 900
c. Rs. 1,000 d. Rs. 1,050
88. Rama purchased a table in Rs. 1,260 and due to some damage on its top, she had to sell it for Rs. 1,197,
a. 20% b. 15% c. 10% d. 5%
89. A shopkeeper purchases 11 pens for Rs. 10 and sells them at 10 for Rs. 11, then the profit is,
a. 18% b. 19% c. 20% d. 21%
90. If $A = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$, then A is
a. unit matrix b. singular matrix
c. symmetric d. all of them are true

Group C [General Knowledge]

(10 × 1 = 10)

91. The famous Muktinath Temple is situated in,
a. Tanahun b. Makwanpur
c. Mustang d. Gorkha
92. The longest river in the world is,
a. Nile b. Ganga
c. Amazon d. Indus
93. In computer abbreviation of 'OS' usually means?
a. Order Significance b. Open Software

Old Question For BCA Entrance Preparation

- c. Operating System d. Optical Sensor
94. What day was yesterday, if Monday is in two days?
a. Wednesday b. Thursday
c. Friday d. Saturday
95. Which district lie in state number 3?
a. Helambu b. Birgunj
c. Tanahun d. Lumbini
96. How many bits equal to one byte?
a. 4 b. 16 c. 8 d. 32
97. Who won the FIFA World Cup 2018?
a. Croatia b. Russia
c. Argentina d. France
98. What is the term to ask the computer to put information in order numerically or alphabetically?
a. Crop b. Report
c. sort d. Record
99. How many districts are there in Nepal?
a. 75 b. 73 c. 77 d. 76
100. Which one of the following is not a part of the internet?
a. WWW b. E-mail
c. CDROM d. HTTP

Tribhuvan University

Faculty of Humanities and Social Sciences Bachelor of Arts in Computer Application Program (BCA).

Entrance Examination 2077

Full Marks: 100

Time: 2 hrs.

Attempt all questions:

Grammar (40 × 1 = 40)

Group: I (English)

Circle the correct answer from among the given options (Multiple Choice Questions)

1. Above Board
a. boasting person
b. honest and straightforward
c. a man with arrogance
d. a dishonest person
2. Call a spade a spade
a. to disrespect b. to say in anger
c. to speak plainly d. to manipulate
3. Roots and branch
a. entirely b. step by step
c. part by part d. bare truth
4. Broadly speaking letters may be said to
Into two categories.
a. belong b. fall
c. split d. convert
5. The last decade has beenfor
management, education and development.
a. dogmatic b. paradoxical
c. praiseworthy d. outstanding
6. Bandy words
a. to argue b. to request
c. to give respect d. to be polite
7. Ever and Anon
a. true promise b. false promise
c. frequent d. sometimes
8. The Synonym of "Spurious" is .
a. false b. harmful
c. poisonous d. foreign
9. Which one is appropriate synonym of "annex"
a. add b. low
c. copy d. initial
10. Which one is appropriate synonym of "Concert"
a. beauty b. power
c. agreement d. none of these
11. The antonym of "engage" is :
a. abstain b. liberate
c. release d. join
12. Give the antonym of "Fable"
a. truth b. fact
c. reality d. actuality
13. What is the antonym of "Moist"?
a. parched b. dry
c. hard d. crisp

Old Question For BCA Entrance Preparation

14. The meaning of "shimmer" is :
a. to flicker like sunlight
b. to shine like sunlight
c. to move like sunlight
d. all of above
15. The word "Snub" gives the meaning as :
a. to ignore b. to avoid
c. to shun d. all of above
16. The enemy paid large sum as
a. redress b. amends
c. compensation d. punishment
17. is a person who dabbles in arts and letters.
a. chauvinist b. connoisseur
c. philistine d. dilettante
18. We lost confidence on him because he never the grandiose promise he made .
a. forget b. tired
c. delivered on d. Relied upon
19. His in his family's position is great but he does not boast about it.
a. status b. pride
c. deceit d. presumption
20. Even when murunga's reputation was in almost everyone was willing to admit that he had genius.
a. Failure b. rebuttal
c. accumulation d. eclipse
21. Shyam has no control his temper.
a. after b. in
c. over d. at
22. She could not dissociate herself What she said earlier.
a. of b. with
c. off d. from
23. We travelled a boat to reach Dhaka .
a. for b. on
c. about d. by
24. I am used such hardships .
a. for b. at
c. from d. to
25. I was disappointed not finding the doctor in his seat .
a. from b. on
c. at d. in
26. Ram is confident his success
a. for b. about
c. towards d. of
27. The reward was not commensurate the work done by us .
a. on b. for
c. with d. order
28. The citizens must not murmur new taxes .
a. over b. upon
c. against d. with
29. What do you infer this boy's hesitating behavior?
a. from b. for
c. with d. against
30. Beggar begged money me .
a. to b. from
c. by d. with
31. The word 'profuse' is meant for :
a. not many b. an average number
c. great abundance d. current amount
32. Give a wide berth
a. to welcome b. to applaud
c. motivate d. to avoid
33. When the church comes
a. movement of decision b. destination
c. dotage d. win something
34. Benevolent is meant to :
a. generous b. kind
c. good d. all of the above
35. Pyrrhic victory
a. real victory b. victory with a policy
c. much awaited victory
d. victory at a high cost
36. Set people by ears .
a. to incite people b. to listen carefully
c. to give a long speech d. to abuse
37. He said, "Would you like tea."
a. He offered me tea
b. He asked if I would like tea
c. Both A and B
d. None of the above
38. According to the passage the question of abortion is,
a. hotly debated b. ignored
c. unanswered d. undecided
39. Which of the following is not true about the genetic engineering?
a. Acquired ability to detect disorder in unborn babies.
b. Possibility of abuse.
c. Increased tendency to manipulate gene cells.
d. Acquired ability to manipulate tissue cells.
40. According to the author of the passage, the present state of knowledge about heredity has made geneticists.
a. reckless b. optimistic
c. introspective d. arrogant

Mathematics (50X1=50)

41. The slope of the line passing through (a,b. and $(\frac{1}{a}, b)$ is :
a. 0 b. 4 c. 3 d. 2
42. If $P(A \cup B) = 1$, two events a and b are
a. mutually exclusive b. equally likely events
c. exhaustive d. dependent events

Old Question For BCA Entrance Preparation

43. The set $\{X: X^2 + X + 1 = 0, X \in R\}$ is :
a. $\{1, \sqrt{3}\}$ b. $\{-1, \sqrt{3}\}$
c. $\{\}$ d. $(-1, 0)$
44. Every rational number is also
a. natural number b. a whole number
c. an integer number d. areal number
45. If $f(u) = \frac{u}{u-1}$, then $f(a)/f(a+1)$ is:
a. $f(-a)$ b. $f\left(\frac{1}{a}\right)$
c. $f(a^2)$ d. $f\left(\frac{-a}{a+1}\right)$
46. Average of even number between 20 to 100
a. 60 b. 40
c. 50 d. 70
47. The value of $\cot 30^\circ$ is :
a. $\frac{1}{2}$ b. $2/\sqrt{3}$
c. $\sqrt{3}$ d. 1
48. If $AB=C$ exists, which of the following order of matrices is possible?
a. $A_2X_3, B_3X_2C_2X_3$ b. A_3X_2, B_2X_3, C_2X_2
c. A_3X_2, B_2X_3, C_3X_3 d. A_3X_3, B_2X_3, C_3X_3
49. The area of 4 walls of square room is $120m^2$. if the height is 5m, the area of its floor is
a. $56m^2$ b. $36m^2$
c. $46m^2$ d. $26m^2$
50. The value of $\begin{vmatrix} 48 & 1 & 6 \\ 32 & 5 & 4 \\ 16 & 3 & 2 \end{vmatrix}$ is:
a. 1 b. 2
c. 0 d. 4
51. Raman salary was decreased by 50% and subsequently increased by 50%. He has a loss of :
A. 0% b. 25%
c. 0.25% d. 2.5%
52. If $a = 4b$, what percent of $2a$ is $2b$?
a. 10% b. 20%
c. 25% d. 26%
53. What 3 percent is 250 out of 1 kg?
a. 25% b. 35%
c. 24% d. 30%
54. The equation of the straight line passing through (2,4) and having slope -2 is :
a. $2x + y = 8$ b. $2x - y = 4$
c. $x + 2y = 8$ d. $x - 2y = 4$
55. A sum reckoned at 12% SI amounts to Rs. 2409 in 4 years, the sum is :
a. 1625 b. 1635
c. 1640 d. 1652
56. Ram gains the cost price of 10 books by sealing 50 books. His profit percentage is :
a. Rs 30% b. 25%
c. 20% d. 16%
57. $\cos 45^\circ =$
a. 1 b. 0 c. $\sqrt{2}$ d. $\frac{1}{2}$
58. The cost price of 10 12 articles is equal to the selling price of 9 articles, the profit percent is
a. 33.33% b. 40.5 %
c. 45% d. 49%
59. The area of a triangular field whose three sides are 300, 400 and 500m (in m^2) is :
a. 6000 b. 5000
c. 400 d. 200
60. The number of bricks, each 4cm x 3cm x 2cm are required to construct a wall having the dimension 11cm x 96cm x 64cm is :
a. 2815 b. 281600
c. 218500 d. 2185
61. The value of $\sec 60^\circ$ is :
a. $\frac{1}{2}$ b. $\frac{\sqrt{3}}{2}$
c. 2 d. $\frac{1}{\sqrt{3}}$
62. The rate percentage per annum that a sum of money trebles itself in 25 years is :
a. 25 % b. 10%
c. 4% d. 8%
63. The percent age of mother and her daughter are 30 years and 14 years respectively. The number of years ago that the product of their age was 192 is :
a. 5 b. 6
c. 7 d. 9
64. If 5 is subtracted from the square of a number and the result is 20, the number is :
a. ± 5 b. ± 6
c. ± 7 d. ± 9
65. A rope is 40 ft. long is cut into two pieces, if one pieces, if one piece is 18 ft. longer than the other. What is the length, in feet, of the shorter piece ?
a. 11 b. 12
c. 13 d. 14
66. If $M = \begin{pmatrix} 1 & 2 \\ 2 & 3 \end{pmatrix}$, $M^2 - rM - 1 = 0$, the value of r is :
a. -2 b. -4
c. 4 d. 2
67. The inequality $-6 \leq 2X + 5 \leq 7$ is equivalent to :
a. $-6 \leq X \leq 1$ b. $-6 < X < 1$
c. $-7 \leq X \leq 5$ d. $-6 \leq X \leq 1$
68. If $f(x) = 3x + 5$, then value of $\frac{f(x+h) - f(x)}{h}$ is :
a. 2 b. 3
c. 4 d. 5
69. The difference of two irrational number is :
a. always an irrational number
b. always a rational number
c. always a real number
d. All of above
70. If $p - q + r = 4$ and $p + q + r = 8$, the value of $p + q =$
a. 2 b. 4
c. 6 d. 8

Old Question For BCA Entrance Preparation

71. If $\frac{a}{4} = \frac{b}{5} = \frac{c}{9}$ then, $\frac{a+b+c}{c}$ is :
 a. 4 b. 2
 c. 7 d. none
72. If 60% of 450 = 15x, the value of x is :
 a. 6 b. 18
 c. 36 d. 72
73. The system of equation $-4x+6y+2z=8$ and $2x-3y-z=-14$ have :
 a. unique solution b. no solution
 c. infinity many solutions d. none of these
74. The area of rectangle field is $493m^2$ and its perimeter is 92 meter. The length and breadth(in m) are :
 a. 7,4 b. 9,7
 c. 29,17 d. 19,13
75. While solving the value of x is $X^3 - 3x^2 + 3x - 1 = 0$.
 a. 2 b. 1
 c. both d. none
76. The side of triangle are 3cm, 4cm and 5cm. it is :
 a. a right angle triangle
 b. an isosceles triangle
 c. an equilateral triangle
 d. none of these
77. Which of the following represents all solutions of the inequality $x^2 < 2x$?
 a. $-1 < x < 1$ b. $1 < x < 3$
 c. $0 < x < 2$ d. $4 < x < 6$
78. If the term 2x, x+10 and 3x+2 be in AP, the value of x is
 a. 7 b. 10
 c. 6 d. 5
79. If $t_n = 3n - 2$, the value of S_5 is :
 a. 35 b. 40
 c. 45 d. 50
80. If $S_n = 1 + 2 + 3 + \dots + n = 20$ the sum of the series $S_n = 1^3 + 2^3 + 3^3 + \dots + n^3$ is :
 a. 400 b. 500
 c. 450 d. 1000
81. While selling a pen for Rs. 50, there is a loss of 5%, for what price should it be sold to gain 5%?
 a. 55.26 b. 52.63
 c. 55 d. 56.32
82. A man sold 250 chairs and had gain equal to the selling price of 50 chairs. His profit percent is:
 a. 5% b. 10%
 c. 25% d. 50%
83. A watch is bought at Rs. 250 and sold at Rs. 300, the gain percent is :
 a. 25% b. 20%
 c. 50% d. none
84. The list of price of an article is 25% above the selling price and cost price is 40% below the list price, then rate of discount is :
 a. 15 % b. 20%
- c. 25% d. 40%
85. If $A = \begin{pmatrix} n & 0 \\ 0 & 1 \end{pmatrix}$ and A^2 is identity matrix, the value of n is :
 a. 1 b. 2
 c. 0 d. 3
86. If $A = \begin{pmatrix} 1 & 2 \\ 3 & -4 \end{pmatrix}$, $Q = \begin{pmatrix} x & 3 \\ 2 & -1 \end{pmatrix}$, determinant of 2p-3q is -5, the value of x is equal to :
 a. $-\frac{1}{2}$ b. $\frac{1}{2}$
 c. $-\frac{1}{3}$ d. $-\frac{1}{4}$
87. The simple interest on Rs. 1250 for 5 years at 8% p.a is :
 a. 480 b. 1000
 c. 500 d. 625
88. If a sum of money doubles itself in 8 years at simple interest, the rate percent per annum is :
 a. 10. 5% b. 11. 5%
 c. 12. 5% d. 13. 5%
89. If two numbers are in the ratio 5:7 and their least common multiple is 315, their product is :
 a. 2385 b. 2538
 c. 2358 d. 2835
90. If $0.75:x::5:8$, then x is equal to...
 a. 1.12 b. 1,2
 c. 1.25 d. 1.30
- A container contains 40l of milk from this container 4l of milk taken out and replaced by water. This process was repeated further two times. How much milk is now contained by the container?
 a. 26.34l b. 27.36l
 c. 28l d. 29.16l

Section: IV General Awareness

(25 × 1 = 25)

91. The famous Halesi mahadev temple is situated in :
 a. Taplejung b. Khotang
 c. Sarlahi d. Morang
92. The oldest flag in the world is of :
 a. Italy b. Russia
 c. Denmark d. China
93. The Guitar was firstly introduced from :
 a. Spain b. Germany
 c. France d. America
94. In Computer abbreviation of AI usually means?
 a. Art info
 b. Artificial Intelligence?
 c. Artificial interest
 d. artificial internet
95. Who is the current vice chancellor of the Tribhuvan University?
 a. Dilli Pd. Sapkota
 b. Shivalai Bhusal

Old Question For BCA Entrance Preparation

- c. Ram pd. Khatiwada
d. Tirtha Khaniya
96. The national game of Bhutan is :
a. Cricket b. Archery
c. Bull fighting d. Football
97. The CEO of Apple is :
a. Satya Nadela b. Tim Cook
c. Warren Buffet d. Sundar Pichai
98. What is the capital of Brazil?
a. Brasilia b. Rio the janeiro
c. Sao paulo d. Salvador
99. Who is the Captain of Nepal's National National Football team?
a. Anil Gurung b. Bimal Gharti Magar
c. Bharat Khawas d. Kiran Chemjong
100. Which country is known as the 'Gift of Nile'
a. Iraq b. Iran
c. Egypt d. Italy

Tribhuvan University

Faculty of Humanities and Social Sciences Bachelor of Arts in Computer Application Program (BCA)

Entrance Examination 2078

Full Marks: 100

Time: 2 hrs.

Attempt all questions:

Group: I (English)

Grammar (40 × 1 = 40)

Circle the correct answer from among the given option (Multiple choice questions)

- I'm really looking forward to.....my new course.
a. start b. starting
c. started d. to start
- 'We had a new teacher today called Mary'. What was she.....?
a. liked b. look like
c. like d. as
- 'Can you..... the time of the next train to London? 'O.K. I'll phone the station.'
a. put away b. find out
c. put out d. clear up
- Martha has been watching television ,and
a. Ralph has too b. Ralph hasn't either
c. so does palph d. neither has Ralph
- If you are "up front", you are
a. bold b. sincere
c. brave d. strong
- "Under wraps" means.....
a. in secret b. with difficulty
c. in a small space d. to get appoint
- An Englishman's home is his.....
a. church b. house
c. outdoors d. castle
- "False friends are.....
a. as clear as day b. out of mind
c. better than riches
d. worse than open enemies
- It was Music I have ever heard.
a. more beautiful b. less beautiful
c. the most beautiful d. most beautiful
- They managed to..... All their unwanted things at the jumble sale.
a. get rid of b. get even with
c. get away with d. get over to
- Select the correct antonym for 'injustice'.
a. appreciation b. fairness
c. cohesion d. co-ordination

Fill in the gap with the correct word from among the given options.

12. The prices of consumer's goodsincreasing now.
a. Are b. is
c. were d. has been
13. Please Enclosed our current catalogue and price list
a. find b. look
c. receive d. examine
14. The word 'Beautiful' has its principal stress on thesyllable.
a. 1st b.2nd
c.3rd d.4th
15. Which of the following word does not have a suffix?
a. painful b. goodness
c. fearless d. courage
16. Which of the following word in an adverb?
a. good b. painful
c. well d. bad
17. Rosemary.....three languages.
a. speaks b. talks
c. tells d. know
18. Your English is really improving but mine.....
a. haven't b. don't
c. isn't d. doesn't
19. Mike is beside Pat. Pat isMike.
a. behind b. between
c. beside d. in front of
20. His office is the second floor of the building.
a. at b.in
c. of d. on
21. you have a good holiday last year?
a. Do b. Does
c. Did d. Are
22. I left college three years.....
a. nothing b. ago
c. for d. in
23. Their son..... In this hospital.
a. works b. begins
c. starts d. likes
24. Will you off the photocopier?
a.to turn b. turning
c. turned d. turn
25. He began to realize that hea mistake.
a. is making b. has made

- c. had made d. will make

Supply the correct tag for the following statement.

26. Let us go,.....
a. Shall we? b. will you?
c. do we? d. don't we?
27. Neither of thema problem.
a. anticipate b. anticipates
c. have anticipated d. are anticipating

Choose the correct passive voice for the following sentence.

28. We celebrate Democracy Day on Falgun seven
a. Democracy Day is celebrated on Falgun seven by us
b. Democracy Day was celebrated on Falgunseven by us
c. Democracy Day has been celebrated on Falgun seven by us.
d. Democracy Day had been celebrated on Falgun seven by us.
29. She is..... obedient student.
a.an b. a
c. the d. none of the above
30. The opposite meaning of 'accepted' is,
a. liked b. noted
c. provided d. rejected
31. Choose the word nearest in meaning to 'copy'
a. Imitate b. Deny
c. Discuss d. Reject

Which is the correct indirect speech for the direct speech given below?

32. Hari says, "I am very happy"
a. Hari says he is very happy.
b. Hari says he was very happy.
c. Hari said he is very happy.
d. Hari said he was very happy.
33. A government controlled by the rich is:
a. oligarchy b. democracy
c. plutocracy d. aristocracy
34. We must be earlywe won't get a seat
a. otherwise b. yet
c. however d. but
35. Badminton is played on a court whereas boxing in a.....
a. court b. track
c. arena d. ring

Read the given passage and then chose the best answer to each question that follows.

Television acts as a narcotics on children-mesmerizing them, stunting their ability to think, and displacing such wholesome activities as book reading and family discussions. Right?

Wrong, says researchers Daniel Anderson, a psychologist at the University of Massachusetts at Amherst. Anderson doesn't have any particular affection for Garfield and friend, MTV clips, or Gilligan's Island returns. But he does believe it's important to distinguish television's impact on Children from influences of the family and the wider culture. We tend to blame TV, he says, for problem it doesn't really cause. In the process, we overlook our own roles in shaping children's minds. One conventional belief about television is that it impairs a child's ability to think and to interpret the world. But Anderson's own research and reviews of the scientific literature discredit this assumption. While watching TV, children do not merely absorb words and images. Instead they muse upon the meaning of what they see, its plausibility, and its implications for the future-weather they've tuned in to a news report of a natural disaster or an action show. Because television relies on such cinematic techniques as montage and crosscutting, children learn early how to draw inference about the passage of time, character psychology, and implied events. Even preschoolers comprehend more than just the information supplied on the tube.

36. According to Anderson, television act as
 a. A narcotics on children
 b. A change agent in the society
 c. A means of book reading
 d. An agent in shaping children's mind
37. TV I mpairs a child 's ability to think and interpret the world
 a. Of the post-modern researchers.
 b. Of the conventional critics.
 c. Of Anderson.
 d. Of recent researchers and reviewers.
38. While watching TV, children are more concerned with.....
 a. words b. image
 c. meaning d. word and images
39. TV depends on

- a. cinematic techniques
 b. rapid reading
 c. natural disaster
 d. news reports

40. TV develops Power of children.

- a. inferencing b. drawing
 c. reading d. thinking

Group B [Mathematics]

41. If A and B are two subset of a universal set U. State the condition for $n(A \cup B) = n(A) + n(B)$
 a. If A and B are disjoint
 b. If A and B are intersecting
 c. $A \subset B$ d. $A \supset B$
42. If $n(U) = 120, n(A) = 55, n(B) = 75, n(A \cup B) = 100$ then $n(\overline{A \cup B}) = ?$
 a. 25 b. 30 c. 90 d. 20
43. The cost of an electric item is Rs. 4,250. How much should a customer pay for it with 13% VAT?
 a. 5520.50 b. 525.5
 c. 4802.5 d. 3697.5
44. If US \$1 = NPR 115 convert NPR. 67275 dollar
 a. 585 b. 580 c. 590 d. 600
45. If $f(x) = 2x$ & $g(x) = x + 1$ then fog(2)
 a. 4 b. 6 c. 8 d. 10
46. A man earn Rs.720 a month. If he spends 80% of it in each month, how much he will save in a year
 a. Rs. 1528 b. Rs. 1628
 c. Rs. 1728 d. Rs. 1828
47. If a selling price of 12 cycle is equal to cost price of 15 cycles. find gain %
 a. 20% b. 25%
 c. 30% d. 15%
48. Circumference of a circle whose area is equal to half that of rectangle 44cm by 28 cm is,
 a. 84 cm b. 86 cm
 c. 88 cm d. 90 cm
49. If a tank with capacity 96m³ have base are 24m² then its height is equal to the
 a. 1m b. 2m
 c. 3m d. 4m
50. If 154000cm³ of water is taken out from a cylindrical well of diameter 3.5m, then decrease in height in cm is equal to ,
 a. 8/3cm b. 8/5cm
 c. 8/7 cm d. 1cm

Old Question For BCA Entrance Preparation

51. If a surface area of a hemisphere is $32\pi m^2$ then its radius is equal to
a. $3m$ b. $4m$
c. $5m$ d. $6m$
52. Two number are in the ratio 2:5 and their sum is 35 then the smaller number is
a. 10 b. 12
c. 14 d. 16
53. The numerical value of $(343)^{-\frac{2}{3}}$ is equal to
a. $1/49$ b. $1/7$
c. $1/25$ d. $1/29$
54. If $32x + 1 = 92x - 1$ then the value of x is equal to
a. $1/2$ b. $3/2$
c. $5/2$ d. 1
55. In a single throw of a dice, find the probability of getting a number divisible by 3 is
a. $1/2$ b. $1/3$
c. $1/4$ d. $2/3$
56. One ticket is drawn at random from a bag containing 15 tickets numbered from 1 to 15 . find the probability that the ticket contains a number which is multiple of 3
a. $\frac{1}{3}$ b. 3 c. 4 d. 5
57. In a three –dimensional space the three axes divide the space into
a. 4 parts b. 6 parts
c. 8 parts d. 3 parts
58. Half of the product of diagonals indicates the area of
a. parallelogram b. rectangular
c. square d. rhombus
59. A parallelogram having it's area $24cm^2$ and base 6cm then it's height is equal to ,
a. 2cm b. 3cm
c. 4 cm d. 6 cm
60. If the area of triangle $56sq.cm$ and the altitude 8cm then the base is ,
a. 7cm b. 8cm
c. 14 cm d. 28cm
61. If $A = \begin{bmatrix} 3 & 2 \\ 4 & 3 \end{bmatrix}$, then the inverse of A is equal to
a. $\begin{bmatrix} 3 & -2 \\ -4 & 3 \end{bmatrix}$ b. $\begin{bmatrix} -3 & 2 \\ 4 & -3 \end{bmatrix}$
c. $\begin{bmatrix} -3 & 2 \\ -4 & 3 \end{bmatrix}$ d. $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$
62. If $|A|=0$, then A is called
a. singular matrix b. zero matrix
- c. non-singular matrix d. identify matrix
63. The famous mathematicians associated with finding the sum of the natural number is,
a. Pythagoras b. newton
c. Gauss d. Euclid
64. Sum of the series $1+1/2+1/2^2+1/2^3+.....$...
a. 1 b. 2
c. 1.555 d. 1.7555
65. The A.M. between x-3 & x+5 is ,
a. $2x+2$ b. x-1
c. x+1 d. $2x+1$
66. The value of $\sin 75$ is
a. $\frac{\sqrt{3}+1}{2\sqrt{2}}$ b. $\frac{\sqrt{3}-1}{2\sqrt{2}}$
c. $\frac{\sqrt{3}+2}{2\sqrt{2}}$ d. $\frac{\sqrt{3}+1}{\sqrt{2}}$
67. The mean of the data 4,6,8,10,12,14 is
a. 7 b. 8
c. 9 d. 10
68. The angle between two straight line $2x - 3y + 1 = 0$ & $3x + 2y - 2 = 0$ is
a. 45° b. 60°
c. 75° d. 90°
69. The value of $\lim_{x \rightarrow a} \frac{\sin(x-a)}{x-a}$ is
a. 0 b. 1 c. -1 d. 1/2
70. The derivatives of $\tan x$ is
a. $\sec^2 x$ b. $\sec x$
c. $\sec x \tan x$ d. $\cot$
71. The limit value of $\lim_{x \rightarrow a} \frac{x^2-9}{x-3}$ is
a. 9 b. 0
c. 6 d. 1
72. Reflection of a point (-1,2) about the line $y=x$ is
a. (1,2) b. (2,1)
c. (-2,1) d. (2,-1)
73. The value of $(i)^{101}$ is
a. 1 b. -1
c. 1 d. -i
74. The number of subset of a set containing n element is
a. $22n$ b. $2n$
c. $2n$ d. $n2$
75. If $A = 600$ value of $\sin 3A$ is
a. $1/2$ b. 0
c. $-1/2$ d. $3/2$
76. If equation of circle is $x^2 + y^2 - 4x + 2y - 11 = 0$, then it's center is
a. (-4,2) b. (-2,1)
c. (2,-1) d. (2,1)

Old Question For BCA Entrance Preparation

77. If an equilateral triangle has side length a then its area is
 a. $\frac{\sqrt{3}}{2} a^2$ b. $\frac{\sqrt{3}}{4} a^2$
 c. $\frac{3}{4} a^2$ d. $\frac{1}{4} a^2$
78. Exterior angle of a regular hexagon is
 a. 45° b. 60°
 c. 75° d. 30°
79. If an angle is 270° then its value in grade system is
 a. 100g b. 200g
 c. 300g d. 400g
80. A man looks at the top of the tree which is at a distance of 1000m and makes angle of 45° then height of the tree is
 a. 100m b. 75m
 c. 50m d. 40m
81. If $\sin \theta - \cos \theta = 0$ then the value of θ is,
 a. 0° b. 90°
 c. 60° d. 45°
82. If $x > 0$ then $|x|$ is equal to
 a. $-x$ b. x
 c. 0 d. 1
83. The range of the function $f(x) = \frac{x}{|x|}$ is
 a. $\{1\}$ b. $\{1, -1\}$
 c. $\{0\}$ d. $\{-\infty, \infty\}$
84. For set $A, (A_2)^2$ is
 a. $U - A$ b. A_2
 c. A d. U_2
85. Geometric mean between two number 4 and 6 is
 a. 6 b. 8
 c. 10 d. 12
86. The 6th term of the series 3, 9, 27, ... is
 a. 81 b. 243
 c. 729 d. 2187
87. For some integers n which of the following is odd integer
 a. n b. $n+1$
 c. $2n$ d. $2n+1$
88. The centroid of a triangle is a point where
 a. the perpendicular from vertex to opposite sides meet
 b. medians meet
 c. bisectors of each angle meet
 d. perpendicular bisectors of each sides meet
89. The set $A = \{x: x \in N \text{ \& } x^2 + 3x + 2 = 0\}$ is
 a. Null set b. Finite set

- c. Infinite set d. set with two elements
90. The H.C.F of the algebraic expressions $a_2 - b_2$ & $a_2 + 2ab + b_2$ is
 a. $a+b$ b. $(a + b_2(a - b))$
 c. $a-b$ d. $a_2 - b_2$

Group C [General Knowledge]

91. What is the full form of pdf?
 a. portable document format
 b. permanent document formats
 c. partial document format
 d. partial document formation
92. Which is not part of CPU?
 a. memory b. Processor
 c. keyboard d. arithmetic logic unit
93. Which is the earliest counting and calculating device for making calculation?
 a. Napier's Bone b. Abacus
 c. Slide rule d. Difference Engines
94. When did Nepalese government published new map including Limiyadura, Kalapani and lipulekh?
 a. 2077 Jestha 5 b. 2077 Jestha 01
 c. 2077 Ashad 7 d. 2077 jestha 9
95. What is the recent height of mt. Everest?
 a. 8848.86m b. 8848.05m
 c. 8848m d. 8850m
96. Who is the author of karnali Blues?
 a. Amar neupane b. Buddhi sagar
 c. parijat d. Laxmi Prasad devkota
97. Who is the present education minister of Nepal?
 a. Narayan khadka b. Prem Ale
 c. Devendra paudel d. Bal Krishna khadka
98. What is the scientific name of frog?
 a. Serpentes b. Cercopithecidae
 c. Anura d. Homo Sapiens
99. The famous Mukthinath Temple is situated in
 a. Tanahun b. Makwanpur
 c. Mustang d. Gorkha
100. The longest river in the world is ,
 a. Nile b. Ganga
 c. Amazon d. Indus

Tribhuvan University
Faculty of Humanities and Social Sciences
Bachelor of Arts in Computer Application
Program (BCA)

Entrance Examination 2022

Full Marks: 100

Time: 2 hrs.

Attempt all questions:

Group A Grammar (40 × 1 = 40)

Circle the correct answer from among the given options (Multiple Choice Questions)

1. Managers have authoritytheir employees.
a. over b. with c. on d. in
2. She was born.....the 14th of July, 1994
a. in b. by c. at d. on
3. At the end of the street, turn....your left.
a. on b. at c. to d. with
4. The man has been working herelast Monday.
a. for b. from c. to d. since
5. She is expected to arrive a month's time.
a. at b. by c. in d. on
6. He crossedPacific ocean by plane.
a. a b. an c. the d. none
7. She isdoctor by profession.
a. a b. an c. the d. none
8. Please calldoctor as soon as possible, he is getting worse.
a. a b. an c. the d. none
9. Milan is innorth of Italy.
a. a b. an c. the d. none
10. She isSmallest of the three sisters.
a. a b. an c. the d. none
11. She helped her brother.....the problem.
a. solve b. solving
c. solves d. solved
12. I will make her....the telephone.
a. answered b. answer
c. answering d. answers
13. She is having me ...the job for her.
a. done b. doing
c. do d. to doing
14. He got his car....
a. fixing b. fixed
c. to fix d. fix
15. My mother got me ...my work.
a. to complete b. completed
c. complete d. completing
16. Columbus discovered America.....?
a. did he b. didn't he

- c. hadn't he d. none
17. Stop that noise,?
a. will you b. won't you
c. can't you d. don't you
18. Let's march ahead,.....?
a. will you b. won't you
c. can't you d. don't you?
19. You and I are friends,.....?
a. aren't we b. aren't I
c. aren't you d. all possible
20. Everyone is happy,.....?
a. Isn't they b. aren't they
c. isn't everyone d. aren't everyone
21. I wish that heto the party.
a. may come b. will come
c. can come d. would come
22. The tourist finally got used to.....Nepali food after staying in Nepal for five months.
a. eat b. to eating
c. eaten d. eating
23. The cat hadtail hurt.
a. it b. it's c. their d. its
24. She washes the clothes...
a. themselves b. herself
c. himself d. ourselves
25. The plural of "goose" is
a. geese b. goosees
c. geese d. geoses
26. The opposite of "detest" is ...
a. love b. hate
c. prove d. none
27. The word "understand" receives stress on itssyllable.
a. 1st b. 2nd c. 3rd d. 4th
28. A speech made at the end of the day.
a. Prologue b. epilogue
c. dialogue d. monologue
29. He said "what a beautiful scene!"
a. He said that what a beautiful scene it was
b. He exclaimed what a beautiful scene it was
c. He exclaimed what a beautiful scene it were.
d. He exclaimed that it was a beautiful dress.
30. What is the indirect of "congratulations"?
a. He congratulated me.
b. He told me congratulations.
c. He said congratulations.
d. He wished me congratulations.
31. What is the passive of "I did it"?
a. It is done b. It is being done
c. It was done d. It has been done

32. She postponedto Pokhara.
a. going b. gone
c. to go d. going
33. You will succeed if you.....hard.
a. works b. work
c. will work d. had worked
34. I would rather...drink coffee than tea.
a. don't b. not
c. didn't d. hadn't
35. She acts as through he... acting classes.
a. takes b. took
c. had taken d. is taking

Read the given passage and then choose the best answer to each questions that follows.

Very closely associated with the beauty of the mountains are some special emotions that the peaks provoke. The companionship provided by climbing together is almost universally value. Lonely through the mountain peaks are, the teams of mountaineers who climb them find an developing between them. The friendship established in the mountains is lasting and irreplaceable walked the feather edge of danger with someone. When you have held his life at the end of a room he has later held yours, you have an almost impregnable foundation for friendship, for the deeper from sharing failure as well as success, danger as well as safety.

Questions:

36. The friendship established during mountain climbing is
a. lasting and irreparable
b. like the friendship in modern societies
c. born out of solitude
d. inspired by the beauties of nature
37. Real friendship is born when people share about their
a. failures b. success
c. dangers d. 1, 2, and 3 together
38. When you have walked the feather edge of danger with someone.
a. You will meet him at the party afterward
b. You will have really appreciated the beauty later
c. You will get tired easily
d. You will have an irreplaceable foundation for a friend.
39. The word 'impregnable' implies
a. That which cannot be overcome or taken by force.

- b. That which exhibits a lot of strength.
c. That which last forever.
d. That which is very impressive.

40. "Walked the feather edge of danger with someone" means
a. Walked on feathers with someone.
b. Walked on someone on the edge of danger.
c. Walked together with feather- like steps
d. Walked where the dividing line between danger and safety.

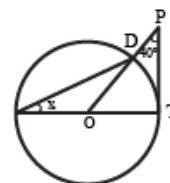
Group B [Mathematics]

41. If $n(A) = 50, n(B) = 30, n(U) = 70$ and $n(A \cap B) = 15$ then $n(A \cup B)$ is equal to
a. 45 b. 50 c. 55 d. 60
42. Set of natural number is
a. Finite set b. Infinite set
c. Null set d. Singleton set
43. If $n(A) = 26, n(B) = 32$, then maximum value of $n(A \cup B)$ is
a. 26 b. 58 c. 32 d. 6
44. The Marked Price of an article is Rs. 8500. If a discount of 10% is allowed the selling price is
a. 7550 b. 7650
c. 7750 d. 7850
45. If £ 7= \$ 11 and \$ 2= Rs. 213, then how many pound (£) can be exchange for Rs. 117150?
a. 750 b. 650
c. 700 d. 850
46. A mobile is sold for Rs. 11000, with a profit of Rs. 1000, then the percentage profit is
a. 9% b. 10% c. 12% d. 14%
47. Area of an equilateral triangle with each side 'a' is
a. $\frac{\sqrt{3}}{2} a^3$ b. $\frac{\sqrt{3}}{2} a^2$
c. $\frac{\sqrt{3}}{4} a$ d. $\frac{\sqrt{3}}{4} a^2$
48. Area of triangle with sides 4cm, 5cm, 7cm is
a. $7.8cm^2$ b. $8.8cm^2$
c. $9.8cm^2$ d. $10.8cm^2$
49. Radius of cylinder is 7 cm height is 12 cm then it's volume is
a. $1848cm^3$ b. $1748cm^3$
c. $1648cm^3$ d. $1548cm^3$
50. Total surface area of a hemisphere having radius 7 cm is
a. $450cm^2$ b. $460cm^2$
c. $462cm^2$ d. $472cm^2$
51. If the volume of a cone is $3696cm^3$ and radius of the base is 14cm then height of the cone is
a. 16cm b. 17cm c. 18cm d. 19cm

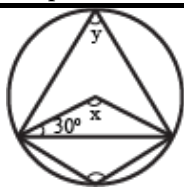
Old Question For BCA Entrance Preparation

52. If $3^{2x} - 9 = 0$ then the value of x is equal to
a. 0 b. 1 c. 3 d. 9
53. The value of $\left(\frac{27}{8}\right)^{\frac{1}{3}} \div \left(\frac{9}{4}\right)^{\frac{1}{2}}$ is
a. 1 b. -1 c. 2 d. -2
54. The two lines $x - y = 4$ and $2x - y = 16$ are
a. parallel b. perpendicular
c. intersecting d. non- intersecting
55. The sum and difference of two positive numbers are 15 and 5 respectively, then the numbers are
a. 14, 1 b. 11, 4
c. 12, 3 d. 10, 5
56. A number is twice the other. If their sum is 30 then the numbers are
a. 10, 20 b. 25, 5
c. 12, 18 d. 17, 13
57. If the sum of squares of two consecutive even numbers is 100, then the numbers are
a. 2, 4 b. 4, 6 c. 6, 8 d. 8, 10
58. If 17 is subtracted from a square of a number the result is 152, then the positive number is
a. 11 b. 14 c. 12 d. 13
59. The sum of first 20 positive numbers is
a. 150 b. 175 c. 200 d. 210
60. The fifth term of the sequence $\frac{1}{2}, \frac{4}{5}, \frac{7}{8}, \dots$
a. $\frac{11}{12}$ b. $\frac{12}{13}$ c. $\frac{13}{14}$ d. $\frac{14}{15}$
61. If $f(x) = 2x + 3$ then $f(3)$ is equal to
a. 6 b. 3 c. 8 d. 9
62. Sum of the functions $\sin(\pi) + \cos(\pi)$ is equal to
a. 6 b. 3 c. 8 d. 2
63. One factor of the polynomial $x^3 - 4x^2 + x + 6$ is
a. $(x + 1)$ b. $(x + 2)$
c. $(x + 3)$ d. $(x + 4)$
64. Sum of the infinite series $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \dots$ is
a. 2 b. 3 c. 1 d. 4
65. Sum of squares of first 5 natural numbers is
a. 50 b. 52 c. 53 d. 55
66. Top of tree which is at a distance of 45 meter makes an angle of 45° to the observer, then the height of the tree is
a. 45m b. 50m c. 55m d. 60m
67. If two lines are perpendicular with each other then the product of their slope is
a. 1 b. -1 c. 2 d. -2
68. (2, 1) and (2, 5) are two points in a plain then the distance between two points is
a. 1 b. 2 c. 3 d. 4

69. Equation of a straight line which is parallel to y - axis and passes through the point (3, 0) is
a. $X = 3$ b. $x = -3$
c. $y = 3$ d. $y = -3$
70. Single equation represented by two straight lines $x = 2y$ and $2x = y$ is
a. $2x^2 - 3xy + 2y^2 = 0$
b. $x^2 - 3xy + 2y^2 = 0$
c. $2x^2 - xy + 2y^2 = 0$
d. $2x^2 - 3xy + y^2 = 0$
71. Diameter of a circle subtend an angle at the circumference which is always
a. 45 degree b. 60 degree
c. 90 degree d. 180 degree
72. Angle subtended by an arc at the center of a circle and at the circumference are related as
a. Angle at the center is double of the angle of the circumference
b. Angle at circumferences is double of the angle at the center
c. Both the angles are equal
d. There is no relation between them
73. A parallelogram and a triangle standing on the same base and between the same parallel lines are
a. Both are equal in area
b. Area of the parallelogram is double of the area of triangle
c. Area of the triangle is double of the area of parallelogram.
d. Area between them can't be compared
74. Sum of the four angles of a cyclic quadrilateral is
a. 90 b. 180 c. 270 d. 360
75. In the adjoining figure, PT is tangent, center O and angle OPT is 140° , then the value of x is



- a. 40° b. 80° c. 50° d. 25°
76. In the adjoining figure, X is the center of the circle and the given angle is 30° , then the value of y is



- a. 30° b. 40° c. 50° d. 60°
77. $A = \begin{bmatrix} 2 & 3 \\ 1 & 1 \end{bmatrix}$, then inverse of matrix A is
 a. $\begin{bmatrix} -2 & 3 \\ 1 & -1 \end{bmatrix}$ b. $\begin{bmatrix} 2 & -3 \\ -1 & 1 \end{bmatrix}$
 c. $\begin{bmatrix} 2 & 3 \\ 1 & 1 \end{bmatrix}$ d. $\begin{bmatrix} -2 & -3 \\ 1 & 1 \end{bmatrix}$
78. Determinant of singular matrix is
 a. 0 b. 1 c. -1 d. 2
79. What is the value of $\tan 90^\circ$?
 a. 0 b. 1 c. -1 d. ∞
80. Of a group of 120 students, 80 takes mathematics and 62 takes statistics. If 20 students neither if two, the number of students taking both subjects are
 a. 50 b. 42 c. 52 d. 55
81. $-5 < x < 9$ can be written in the absolute value sign as:
 a. $|x - 2| < 5$ b. $|x - 2| < 7$
 c. $|x - 2| < 9$ d. $|x + 2| < 5$
82. If the relation $R = \{(1,2), (2,3), (3,4), (4,5)\}$ then its range is,
 a. $\{2, 3, 4, 5\}$ b. $\{1, 2, 3, 4\}$
 c. $\{1, 2, 3, 5\}$ d. $\{1, 3, 4, 5\}$
83. The radius of the circle $x^2 + y^2 = 25$ is equal to
 a. 4 b. 3 c. 5 d. 9
84. The value of $2\sqrt{128} + \sqrt{162}$ is,
 a. $25\sqrt{2}$ b. $4\sqrt{3}$
 c. 0 d. 60
85. How many stones each of area 22 cm square are required for paving a courtyard 5.5 m long and 4 m wide?
 a. 60000 b. 40000
 c. 20000 d. 10000
86. The commission of Rs. 5,600 at the rate of 5% is
 a. Rs. 280 b. Rs. 360
 c. Rs. 560 d. Rs. 144
87. The discount of marked price is Rs. 5,800 is the amount Rs. 696 then the discount percent is.
 a. 12% b. 20%
 c. 5% d. 38%
88. If $b^2 - 4ac = 0$ then the roots of $ax^2 + bx + c = 0$ are:

- a. equal b. not exist
 c. rational d. imaginary
89. Which of the following is correct?
 a. $A.M = ab$ b. $H.M = \frac{2ab}{a+b}$
 c. $H.M = \frac{a+b}{2}$ d. none of these
90. Limit of function $\lim_{x \rightarrow 0} \frac{\sin(x)}{x}$ is equal to
 a. 0 b. 1 c. -1 d. Not exists
- General Knowledge (10 × 1 = 10)**
91. What is the full form of WWW?
 a. Well Wired Work b. World Web Wide
 c. World Wide Web
 d. Word Windows Work
92. Which is not a input device?
 a. Mouse b. Light Pen
 c. Printer d. Scanner
93. The day before the day before yesterday is three days after Saturday is,
 a. Friday b. Thursday
 c. Wednesday d. Sunday
94. A and B are brothers, C and D are sisters A's sons is D's brother. How is B related to C?
 a. Father b. Brother
 c. Grandfather d. Uncle
95. What is the area of Nepal?
 a. $147,516 \text{ km}^2$ b. $147,316 \text{ km}^2$
 c. $147,416 \text{ km}^2$ d. $147,616 \text{ km}^2$
96. Who is the author of Palpasa Cafe?
 a. Amar Neupane b. Buddhi Sagar
 c. Narayan Wagle
 d. Laxmi Prasad Devkota
97. How many total teams are going to participate in FIFA World Cup 2022?
 a. 34 b. 31 c. 35 d. 32
98. What temperature is water the dense?
 a. 3.98° b. 3.76°
 c. 3.70° d. 3.50°
99. The famous Shashwat Dham Temple is situated in,
 a. Tanahun b. Makawanpur
 c. Nawalparasi d. Gorkha
100. Which is the first WiFi-free district of Nepal?
 a. Parsa b. Darchula
 c. Kaski d. Myagdi

Tribhuvan University
Faculty of Humanities and Social Sciences
Bachelor of Arts in Computer Application
Program (BCA)

Entrance Examination 2023

Full Marks: 100

Time: 2 hrs.

Attempt all questions:

Group A Grammar (40 × 1 = 40)

Circle the correct answer from among the given options (Multiple Choice Questions)

1. He asked, "What is your name?"
a. He asked what my name is.
b. He asked what my name was.
c. He asked what my was my name.
d. He asked what were my name.
2. If I had met him, Ihim easily.
a. would recognize
b. would have recognize
c. would have recognized
d. recognizes
3. My parents always make mehomework.
a. to do b. do c. done d. did
4. The misspelled word is.....
a. separate b. recommendation
c. accommodation d. anxietie
5. Nobody was absent in the exam,?
a. weren't they b. were they
c. was he d. wasn't he
6. She looks as if.....
a. she is an actress b. actress
c. famous d. acting
7. The actress performed well. The word 'well' is a....
a. verb b. noun
c. adjective d. adverb
8. School education should enhance creativity. The word 'creativity' is a.....
a. concrete noun
b. abstract noun
c. collective noun
d. countable noun
9. In the word punishment, the 'ment' is.....
a. Suffix b. Prefix
c. Root word d. New word
10. He has been teaching..... a long time.
a. For b. Since
c. in d. at
11. Prem is on holiday. He to Ilam.
a. has go b. has gone
c. went d. has been going
12. The wh. question of "She dances well" is
a. Who dances?
b. Why does she dance?

- c. How does she dance?
d. How does she dance?
13. I haveheadache.
a. an b. a
c. the d. none of above
14. I wish I BCA entrance exam.
a. pass b. can pass
c. would pass d. will pass
15. What is the passive voice of 'Nadine Gordimer wrote The Conservationist.'
a. The Conservationist was written by 'Nadine Gordimer.
b. The Conservationist has been written by 'Nadine Gordimer.
c. The Conservationist written by 'Nadine Gordimer.
d. The Conservationist was wrote by 'Nadine Gordimer.
16. the hard labor, she was successful.
a. because b. because of
c. although d. despite
17. As soon as he opened the fridge, he some oranges.
a. had seen b. saw
c. has seen d. sees
18. The driver and mechanic intelligent enough to handle the problem.
a. are b. is
c. have d. has
19. He is weak, and he is still in bed. He has not stopped medicines.....
a. either b. neither
c. either or d. neither nor
20. It was raining very.....
a. heavy b. heavily
c. with heavy d. with heavily
21. Which one is correct?
a. I visit him in the supermarket sometimes.
b. I visit him sometimes in the supermarket.
c. I visit sometimes him in the supermarket.
d. I sometimes visit him in the supermarket.
22. Travelling to the remote places..... important because it is adventurous.
a. is b. are
c. was d. were
23. The word resemblance means.....
a. lasting only for a short time
b. the state of being alike
c. victory over a place or people by use of military force
d. liquid that is believed to cure all ills
24. I went to see the film, but I.....it.
a. do not enjoy b. did not enjoy
c. has not enjoyed d. enjoyed
25. Are you in technical subject?
a. interesting b. interested

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- c. interest d. all of them
26. I'll tell your parents what you did. The language function in this sentence is.....
a. Deciding
b. Threatening
c. Predicting a future action
d. Promising
27. Everyone..... problems in their life.
a. has b. have
c. had d. has had
28. Collin studied Science reluctantly due to her father's pressure. It means
a. Collin was eager to read Science.
b. Collin was not eager to read Science.
c. Collin was eager to read Science for father
d. Collin was eager to read not Science but Math.
29.the fact that he is an octogenarian; he still leads an active life.
a. however b. although
c. in spite of d. because
30. You look tired. You.....to the bed.
a. can go b. should go
c. will go d. may
31. The monkey has leg hurt.
a. its b. it's
c. its' d. it
32. That's the house..... I was born.
a. there b. where
c. that d. which
33. Krishna could not the branch off the tree.
a. break b. brake
c. broke d. breek
34. 'The Selfish Giant' is a short story for children written by
a. Oscar Wilde b. Leo Tolstoy
c. Chinua Achebe d. R.K. Narayan
35. Why are you bringing that argument now?
a. up b. into
c. to d. about

Read the passage and then choose the best answer to each question that follows. (Q. 36 to 40)

But it is not always easy to find out what our colleagues are doing behind those closed classroom doors. Ironically, according to Parker J. Palmer, "Teaching is perhaps the most privatized of all the public professions. Though we teach in front of students, we almost always teach solo, out of collegial sight - as contrasted with surgeons or lawyers, who work in the presence of others who know their craft well. When we walk into our workplace, the classroom, we close the door on our colleagues. When we emerge, we rarely talk about what happened or what needs to happen

next, for we have no shared experience to talk about." Some of that privatization is now breaking down in the United State because of widespread use of the internet to circulate syllabi and to publish student course evaluations. In the UK, since the Dearing Report of 1997, centralized (and much hated) teaching assessment requirements instituted by the Labor government and the Institute for Learning and Teaching (ILT) have made teaching in higher education very public, at the cost of a great deal of bureaucracy and regimentation.

Questions:

36. What is the problem of teaching according to Palmer?
a. Teaching as public profession
b. Teaching as private profession
c. Teaching as dream
d. Teaching as anxiety
37. According to passage, teachers prefer to
a. teach in isolation
b. teach in collaboration with other teachers
c. teach sharing experiences
d. teach in semester class
38. The privatization is now breaking down in the United State because of.....
a. Internet b. online classes
c. higher education d. new syllabus
39. The word 'rarely' means
a. always b. sometimes
c. seldom d. never
40. 'We' of the fourth line of the passage refers to.....
a. Lawyers b. Surgeons
c. Teachers d. All of them

Group B [Mathematics 50 × 1 = 50]

41. If $n(A)=30$, $n(B)=50$, $n(U)=60$ and $n(A \cup B)=55$ then sum of $n(A - B)$ and $n(B - A)$ is equal to
a. 45 b. 50
c. 55 d. 30
42. The sum of natural numbers from 1 to 20 is
a. $\frac{20 \times 21}{2}$ b. $\frac{19 \times 21}{2}$
c. $\frac{1 \times 20}{2}$ d. 200
43. If $n(A)=26$ and $n(B)=32$ then the maximum value of $n(A \cap B)$ is
a. 26 b. 58
c. 32 d. 6
44. For some integer n, which of the following form is always an odd integer?
a. N b. n+1
c. 2n d. 2n+1
45. The range of the function $f(x) = \sqrt{x-1}$ is

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- a. $[1, \infty)$ b. $(-\infty, +\infty)$
c. $(-1, \infty)$ c. $[0, \infty)$
46. To exist infinite sum of the geometric series its ratio should be
a. less than 0 b. less than -1
c. between 1 and -1 d. greater than 1
47. The complement of an angle is 20° (20 degrees) less than 4 times the angle, then the angle is
a. 38 b. 90
c. 22 d. 70
48. If the quadratic equation is $x^2 + x + 1 = 0$ then the value of $x = \dots\dots\dots$
a. $\frac{-1 \pm i\sqrt{3}}{2}$ b. $\frac{-1 - i\sqrt{3}}{2}$
c. $\frac{-1 \pm i\sqrt{2}}{2}$ c. $\frac{-1 + i\sqrt{3}}{2}$
49. A function is defined as $f(x) = \frac{3x+1}{4}$ then the inverse of this function if it exists is
a. $\frac{4x-1}{3}$ b. $\frac{4x+1}{3}$
c. $\frac{3x-1}{4}$ d. $\frac{3x+1}{4}$
50. One factor of the polynomial $x^3 - 4x^2 + x + 6$ is $(x-2)$ then the two other factors are
a. $(x+1)(x-3)$ b. $(x+2)(x-2)$
c. $(x+3)(x-1)$ d. $(x+4)(x+1)$
51. The sum of the infinite series $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \dots\dots$ is
a. 4 b. 3 c. 2 d. 1
52. The sum of cubes of the first 6 natural numbers is
a. 661 b. 551
c. 441 d. 331
53. A poll at a distance of 25 meters from the observer makes an angle of 60 degrees from its top. Then the height of the poll is
a. 25 b. $25\sqrt{3}$
c. $\frac{25}{2}$ d. $50\sqrt{3}$
54. Marked price of an article is Rs. 8500. If a discount of 10% is allowed the selling price is....
a. 7550 b. 7650
c. 7750 d. 7850
55. If £ 7 = \$ 11 and \$2 = Rs. 213, then how many pound (£) can be exchange for Rs. 117150?
a. 750 b. 650
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56. A mobile is sold for Rs. 11000, with a profit of Rs. 1000, then the percentage profit is...
a. 9% b. 10%
c. 12% d. 14%
57. If 12 girls or 8 boys can do a piece of work in 3 days, how many days will be required for 4 boys and 6 girls to do the same work?
a. 2 b. 4 c. 5 d. 3
58. A single equation represented by two straight lines $x = 2y$ and $2x = y$ is ...
a. $2x^2 - 3xy + y^2 = 0$
b. $x^2 - 3xy + 2y^2 = 0$
c. $2x^2 - xy + 2y^2 = 0$
d. $2x^2 - 5xy + 2y^2 = 0$
59. Two angles subtended by an arc one at the center and the other at the circumference are related as ...
a. The angle at the center is double the angle at the circumference.
b. The angle at the circumference is double the angle at the center.
c. The angle at the center is half the angle at the circumference.
d. The angle at the circumference is equal to the angle at the center.
60. If $f(x) = 4x$ $g(x) = x + 1$ & $f \circ g(x) = 20$ then the value of $x = \dots\dots\dots$
a. 1 b. 3 c. 2 d. 4
61. If two children are born in a family find the probability that both are girls
a. $\frac{1}{2}$ b. $\frac{1}{3}$ c. $\frac{1}{4}$ d. $\frac{2}{3}$
62. The value of $\tan 75^\circ$ is
a. $\sqrt{3}$ b. $2 + \sqrt{3}$
c. $2 - \sqrt{3}$ d. 2
63. Sum of 15 terms of an A. P. is 435 and the common difference is 4 then the first term is
a. 4 b. 3 c. 2 d. 1
64. Which one is the same as $\log 8$
a. $\log 4 + \log 2$ b. $\log 4 + \log 4$
c. $2 \log 4$ d. $4 \log 2$
65. If $A = \begin{pmatrix} 2 & 3 \\ -4 & -5 \end{pmatrix}$ $B = \begin{pmatrix} 0 & -3 \\ 2 & 5 \end{pmatrix}$ then $(AB)^T =$
a. $\begin{pmatrix} 6 & -10 \\ 9 & -13 \end{pmatrix}$ b. $\begin{pmatrix} 6 & 10 \\ 9 & -13 \end{pmatrix}$
c. $\begin{pmatrix} 6 & -10 \\ 9 & 13 \end{pmatrix}$ d. $\begin{pmatrix} 6 & 0 \\ 9 & 3 \end{pmatrix}$
66. If vector $\vec{a}$ and vector $\vec{b}$ are defined as $\vec{a} = (0, 3, 4)$ and $\vec{b} = (2, -2, 0)$ then cosine of the angle between them is
a. $-\frac{3}{\sqrt{2}}$ b. $\frac{3}{\sqrt{2}}$
c. $\frac{3}{5\sqrt{2}}$ d. $-\frac{3}{5\sqrt{2}}$
67. Harmonic mean between two numbers a and b is
a. $\frac{a+b}{2ab}$ b. $\frac{a-b}{2ab}$
c. $\frac{2ab}{a+b}$ d. $\frac{2ab}{a-b}$
68. The sum of the first 10 odd numbers is
a. 80 b. 90 c. 125 d. 100
69. The solution of the equation $x^2 + 1 = 0$ in a complex number system is,
a. 1 b. -1 c. 0 d. $\pm i$

70. The next term of the sequence 1, 2, 4, 7, 11,
a. 15 b. 16 c. 17 d. 22
71. If $f(x) = x^2 - 3x + 1$ & $f(2a) = 2f(a)$ then $a = \dots\dots\dots$
a. $\frac{1}{\sqrt{2}}$ b. $-\frac{1}{\sqrt{2}}$
c. $\frac{1}{\sqrt{2}}$ or $-\frac{1}{\sqrt{2}}$ d. 1
72. If $x < 0$, then the value of $|x|$ is equal to
a. x b. $-x$
c. x^2 d. $-x^2$
73. The two lines $3x + 2y = 5$ and $9x + 6y = 14$ have
a. no solution b. unique solution
c. infinite solution d. two solution
74. When a point (3, 4) is rotated by 90 degrees in anticlockwise direction and translated by a point (5, -2) the resulting point is
a. (1, 1) b. (8, 2)
c. (-2, 6) d. (0, 1)
75. If $2x^3 - 7x^2 + x + 10 = (x - 1)Q(x) + R(x)$ then the value of remainder $R(x)$ is equal to
a. 5 b. 6 c. 7 d. 9
76. If $5^{x+3} = (25)^x$, then the value of x is
a. 1 b. 2 c. 0 d. 3
77. If $x + y = 3$ & $x^2 + y^2 = 5$, then the value of xy is
a. 1 b. 2 c. 3 d. 453
78. If m_1 and m_2 are the slopes of the pair of lines $ax^2 + 2hxy + by^2 = 0$ then the product of m_1 and m_2 is
a. $\frac{2h}{b}$ b. ab c. $a - b$ d. $\frac{a}{b}$
79. In the general equation of circle $x^2 + y^2 + 2gx + 2fy + c = 0$ the radius of the circle is
a. (g, f) b. (f, g)
c. $(-g, -f)$ d. $(-f, -g)$
80. The value of $0!$ Is
a. 0 b. -1 c. 1 d. 2
81. The value of limit $\lim_{x \rightarrow 3} \frac{x^2 - 9}{x - 3}$
a. 0 b. -1 c. 1 d. 2
82. Derivative of $\tan x$ with respect to x is
a. $\sin^2 x$ b. $\cos^2 x$
c. $\operatorname{cosec}^2 x$ d. $\sec^2 x$
83. A point in a three-dimensional space has its coordinate is (1, 2, -2). The distance of this point from the origin is
a. 5 b. 4 c. 1 d. 3
84. A matrix A has its order 3×4 and matrix B has its order 4×3 then the order of their product AB is
a. 3×3 b. 4×4
c. 4×3 d. 3×4
85. If transpose of a matrix A is the matrix A itself then A is called

- a. identity b. scalar
c. symmetric d. skew-symmetric
86. Sum of the natural numbers $1^3 + 2^3 + 3^3 + \dots + n^3$ is
a. $\left(\frac{n(n+1)}{2}\right)^3$ b. $\left(\frac{n(n+1)}{2}\right)^2$
c. $\left(\frac{n(n+1)}{3}\right)^2$ d. $\left(\frac{n(n-1)}{2}\right)^2$
87. The fifth term of the sequence $\frac{1}{2}, \frac{4}{5}, \frac{7}{8}, \dots$
a. $\frac{11}{12}$ b. $\frac{12}{13}$ c. $\frac{13}{14}$ d. $\frac{14}{15}$
88. Radius of the cylinder is 7 cm height is 3 cm then its volume is
a. 442 cm^3 b. 452 cm^3
c. 462 cm^3 d. 472 cm^3
89. If $b^2 - 4ac = 0$ then the roots of $ax^2 + bx + c = 0$ are:
a. real and equal b. real and unequal
c. irrational d. imaginary
90. A dice is thrown in the air. The probability of getting odd numbers is
a. $\frac{1}{3}$ b. $\frac{1}{2}$
c. $\frac{3}{4}$ d. 2

Group C

[General Knowledge & IT] 10 × 1 = 10

91. Which programming language is often used for web development?
a. Java b. Python
c. HTML d. C++
92. What does the abbreviation "URL" stand for in the context of the internet?
a. Uniform Resource Locator
b. Universal Routing Language
c. Unique Resource Link
d. User Registration Link
93. What is the process by which plants make their own food using sunlight?
a. Respiration b. Photosynthesis
c. Digestion d. Fermentation
94. What is the largest mammal in the world?
a. Elephant b. Blue Whale
c. Giraffe d. Rhinoceros
95. Who is the current Secretary-General of the United Nations as of September 2023?
a. Ban Ki-moon b. Antonio Guterres
c. Kofi Annan d. Nikki Haley
96. Mount Everest, the world's highest peak, is part of which mountain range in Nepal?
a. Annapurna Range b. Langtang Range
c. Khumbu Himal d. Dhaulagiri Range
97. The United Nations Sustainable Development Goals (SDGs) are a global framework aimed at addressing various global challenges, including poverty, inequality, and climate change. How many SDGs are there in total?

Old Question For BCA Entrance Preparation

- a. 12 b. 15 c. 17 d. 20
98. Which famous mountaineer from Nepal became the first person to climb Mount Everest without supplemental oxygen in 1980?
- a. Tenzing Norgay
 - b. Pasang LhamuSherpa
 - c. Reinhold Messner
 - d. Junko Tabei
99. Who is the captain of the Nepal national football team as of September 2023?
- a. Anil Gurung b. Kiran Chemjong
 - c. Bharat Khawas d. Rohit Chand
100. In recent years, Nepal has been facing challenges related to the conservation of which endangered species?
- a. Bengal Tigers
 - b. Snow Leopards
 - c. Red Pandas
 - d. Asian Elephants