Model Questions for
Bachelor in Computer Application (BCA)
Set I

Tribhuvan University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN
2018

Bachelor in Computer Applications (BCA)
Entrance Exam

Full Marks: 100   **Time: 2 hrs.**

Group A [English]

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

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

3. Supply the correct tag for the following statement.

   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) its   b) 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

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

   He got <u>a Lion's share</u> 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

11. Choose the correct passive voice for the following sentence.

    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.

12. She is ………….. obedient student.

    a) an   b) a   c) the   d) none of the above.

13. Choose the correct answer from among the given options.

    I don't think I …………. be able to go.

    a) will   b) should   c) can   d) could

14. Choose the correct single word for the group of words given below.

    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. Choose the correct synonym for the underlined word in the following sentence.

    Raman is a <u>versatile</u> 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. Fill in the gap with the correct word from among the given options.

    The price of consumer goods ………. increasing.

    a) are   b) is   c) were   d) has been

22. Which of the following sentences is incorrect in terms of subject verb agreement?

    a) Each of the women owns her home.   b) All of the women own their own homes.

    c) Here are two wrenches and a hammer.   d) Here is a hammer and two wrenches.

23. Which of the following sentences has the correct use of comma (,)?

    a) June 27, 2018, is a day I will never forget.

    b) Some people who go to school, enjoy the social life.

c) He was late for dinner, we decided to eat without him.

d) We were glad to see him, because he had brought gifts.

24. Choose the part participate of the verb *quit*.

    a) quited   b) quit   c) quitting   d) has quit

25. Choose the correct alternative from among the given options.

    We spent a ………… evening together.

    a) quite   b) quit   c) quiet   d) quitter

26. Which of the following words needs capitalization?

    a) winter   b) ocean   c) jewish   d) university

27. Choose the correct preposition from among the given options.

    He is occurred …………….. cheating.

    a) for   b) of   c) on   d) in

28. Select the correct alternative to fill in the gap in the following sentence.

    He is coming here ………….. six o'clock.

    a) upon   b) on   c) at   d) to

29. Select the correct meaning of the idiom in,

    In the good book of

    a) enjoying a pleasant moment.   b) enjoying a favour of someone.

    c) possessing a good book for reading.   d) purchasing a good book.

30. Fill in the gap in the following sentence from among the given options.

    I am ………… tired to go any further.

    a) to   b) too   c) so   d) not

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

    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.

32. Select the interrogative sentence from the given options below.

    a) Shall I see you tomorrow?   b) He has studied English for a long time.

    c) They won't believe you.   d) It will be dark soon.

33. Put the correct verb form in the gap below.

    I ………….. told you earlier if I had known.

    a) would   b) would have   c) had   d) should

34. Choose the right pronoun from the given alternatives in the following sentence.

    If everybody does ………….. part, the game should go smoothly.

    a) his   b) her   c) his or her   d) their

35. Which of the following word is an adverb?

    a) good   b) bad   c) well   d) melt

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

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 in still at its infancy, scientists can now predict with greater accuracy a genetic disorder. It is not yet an exact science. Since they are 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 $\sum\limits_{n=10}^{10}(-1)^{n}$?

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 x 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 $\dfrac{5^4 - 5^3}{4}$.

a) 5^3 b) $\dfrac{1}{5}$ c) 5^4 d) $\dfrac{5}{4}$

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) $\dfrac{r}{3}$ b) $\dfrac{(p+q)}{3}$ c) $\dfrac{2r}{3}$ d) $\dfrac{r}{2}$

59. What is the slope of the line whose equation is $2x - 4y = 9$?

a) 1   b) $\dfrac{1}{2}$ c) 2   d) 3

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) 18   b) 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 anum?

a) 60 yrs.   b) 50 yrs.   c) 40 yrs.   d) 30 yrs.

73. What is the rate percentage per anum 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∩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 ≤ x ≤ 15}?

a) [5, ∞]   b) [∞, 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 $\left(\sqrt{5} + \sqrt{5}\right)^2$?

    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 m². If the height is 5 m, then what is the area of its floor?

    a) 26 m²   b) 56 m²   c) 25 m²   d) 36 m²

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 0⁰?

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

Group C [General Knowledge]

91. When did the new constitute 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

Best of Luck

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Group A [English]

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

2.   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) apostate   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.

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]

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 $\cot 90^0$?

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)∩(A-C)   c) (A∩B)-(A∩C)   d) (AUB)-(AUC)

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 180^0 is equal to,

a) 1 b) -1 c) 0 d) ∞

49. $1^2 + 2^2 + 3^2 + \ldots\ldots\ldots + n^2$ is equal to,

a) $\dfrac{n(n+1)}{2}$ b) $\dfrac{n(n+1)(2n+1)}{6}$ c) $\{\dfrac{(n+1)}{2}\}^2$ 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 $\cos^2 30^0 - \sin^2 30^0$?

a) $\dfrac{1}{2}$ b) $\dfrac{\sqrt{3}}{2}$ c) $\dfrac{1}{\sqrt{3}}$ d) $\dfrac{-1}{2}$

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) $\dfrac{\sqrt{3}}{4a^2}$ b) $\dfrac{1}{2} \times b \times h$ c) $\sqrt{(s-a)(s-b)(s-c)}$ d) None of these.

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 $(a, b] = \{x: a < x \le b\}$ is known as,

a) left open interval   b) right open interval

c) closed interval   d) open interval

73. Let f:R→R and g:R→R be defined by $f(x) = 2x^2 - 3$, $g(x) = 3x + 2$. Then the composite functions $g_0f(x)$ 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. If $x^4 - 3x + 5$ is divided by $2x - 1$, then remainder is,

a) $\dfrac{35}{16}$ b) $\dfrac{-35}{16}$ c) -9   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) $G.M = \dfrac{2ab}{a+b}$ c) $H.M = \dfrac{a+b}{2}$ 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 of 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]

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

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

Best of Luck