

Old Question For BCA Entrance Preparation

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

Old Question For BCA Entrance Preparation

- 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
c. 700 d. 850
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. $\pm i$

Old Question For BCA Entrance Preparation

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 it's 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