

**Saral Shikshya Presents  
BCA Entrance Mock Test – I**

Time: 2 hrs.  
Full Marks: 100

Attempt all questions

**Grammar (40 × 1 = 40)**

1. He says he is ..... us citizen.  
a. a                                b. an  
c. the                              d. nothing
2. Cottage industries supply us ..... Our daily.  
a. In                                b. from  
c. with                            d. by
3. Nobody's touched his yet .....?  
a. Have they                    b. have they  
c. has they                      d. Haven't they
4. My brother always has me ..... His homework?  
a. do                              b. to do  
c. done                            d. doing
5. The novelist and poet ..... Coming tomorrow.  
a. Will                            b. are  
c. is                                d. has been
6. Gopal as well as his parents ..... Present.  
a. Was                            b. were  
c. be                              d. have been
7. No one saw the accident .....?  
a. did one                      b. did they  
c. didn't one                  d. didn't they
8. "Don't play around" the head teachers ordered us  
a. To play around  
b. not to play around  
c. do not play around  
d. play around
9. Which of the following sentence is correct?  
a. He arrived yesterday  
b. he has arrived yesterday  
c. he arrives yesterday  
d. he has arrived yesterday
10. The memoranda ..... signed.  
a. Has been                     b. is  
c. was                            d. was
11. Each of the five boys ..... bill.  
a. Has paid his                b. have paid their  
c. has paid their              d. have paid his
12. What is the opposite of "bizarre"?  
a. Ordinary                     b. storage  
c. mediocre                     d. familiar

13. Which takes ..... yes to from the plural?  
a. proof                        b. sheaf  
c. chief                        d. hoof
14. The public ..... know the facts  
a. needs to                    b. is needing  
c. has needed to             d. need to
15. The passive for 'Do you eat bread?' is .....  
a. Is bread eaten by you.  
b. Bread was eaten by you.  
c. was bread eaten by you.  
d. Bread had been eaten by you
16. She ..... LLB  
a. a                              b. the  
c. an                            d. Some
17. Stand up .....?  
a. Shall you                    b. would you  
c. can't you                    d. will you
18. The meaning of the word 'apt' Is  
a. confident                    b. natural  
c. know                        d. suitable
19. A person who hates women  
a. misogamist                 b. masochist  
c. misogymist                d. misanthropist
20. The synonyms of 'Concise' is-----  
a. warm                        b. usual  
c. brick                        d. equal
21. The antonym of 'superficial' is.....  
a. ridiculous                  b. profound  
c. impudent                    d. civilized
22. To bear with means .....  
a. To support  
b. to have patience with  
c. to give company            d. to confirm
23. She said, "Who is inside?" The indirect form is .....?  
a. She asked who was inside  
b. she asked who is inside  
c. She said who was inside  
d. she asked that who was inside
24. Pick up the wrong pair  
a. fall - fell - fallen  
b. forget - forgot - forgotten  
c. bet - bet - bet  
d. bid - ded - bid
25. I speak English .....?  
a. fluently                     b. fluent  
c. perfect                     d. good
26. The antonym of "Grime" is .....  
a. Calm                        b. display  
c. clean                        d. muck
27. The Synonyms of "Compatible" is .....?  
a. Constant                    b. congenital  
c. Contradictory             d. clear

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

28. We must abide .....  
a. by b. for  
c. to d. in
29. I'd rather sleep .....  
a. hadn't he? b. wouldn't I?  
c. Would I? d. hadn't I?
30. Politics ..... in dirty game?  
a. are b. were  
c. is d. have
31. He said, "Thank you"  
a. He told me to thank.  
b. he Said thanked.  
c. he blessed me.  
d. He thanked me.
32. We ..... if you could.  
a. Will answer b. answer  
c. answered d. had answered
33. Which of the following noun is singular?  
a. cattle b. oasis  
c. Thanks d. geese
34. He is a very tined person.  
a. dashing b. outgoing  
c. bold d. chaialrous
35. Give someone the cold Shoulder  
mean.....  
a. Ignore someone  
b. Accepts Someone  
c. be patient  
d. None of the above
36. Cut the mustard means .....  
a. In good health b. Do a good job  
c. keep it up d. In good food
37. Rice and dal ..... our wholesome food.  
a. Is b. are  
c. have been d. None
38. The past from of known is .....  
a. Know b. Knew  
c. Know d. Knew
39. He is happy and ..... am I  
a. too b. so  
c. nether d. either
40. ..... Sick in a hospital are mainly under  
the case of Nurse.  
a. a b. an c. the d. no article

41. If  $fog(x) = x + 1$  and  $f(x) = (x + 1)$  then  
 $g(x)$   
a. x b.  $x + 1$  c.  $1 - x$  d.  $x^2$
42. Find domain of the function  $y^2 = 4ax$   
a.  $[0,4]$  b.  $[0, \infty)$   
c.  $[-1,1]$  d.  $[0,1]$
43. Angle between pair of lines represented by  
 $3y^2 + kxy - 3y^2 = 0$   
a.  $\frac{\pi}{3}$  b.  $\frac{\pi}{2}$  c.  $\frac{\pi}{6}$  d. 0
44. If  $(0,1), (0,2)$  and  $(2,3)$  be vertices of triangle  
then find the ortho center  
a.  $(0,2)$  b.  $(2,0)$   
c.  $(2,2)$  d.  $(2,3)$
45.  $(x - 3) = 4 \sin \theta$  and  $(x - 4) = 4 \sin \theta$   
represents  
a. straight lines b. pair of lines  
c. circle d. parabola
46. Direction cosine of line which makes angle  
 $0^\circ, 90^\circ, 90^\circ$  with coordinate axis  
a.  $0,1,1$  b.  $1,0,0$   
c.  $0,1,0$  d.  $0,0,1$
47. The diagonals of square  
a. bisect each other  
b. bisect at ratio of 1:2  
c. trisect each other  
d. none of these
48.  $\lim_{x \rightarrow 0} |x|$   
a. 1 b. 0 c. -1 d. DWE
49.  $\frac{d}{dx}(x^3) =$   
a.  $3x$  b.  $3x^2$  c.  $x^2$  d. x
50.  $\int \sin x dx$   
a.  $\sin x + c$  b.  $\cos x + c$   
c.  $-\cos x + c$  d.  $\tan x + c$
51. The derivative  $x^4$  with respect to  $x^4$  is  
a. 1 b. 0 c.  $4x^3$  d.  $3x^2$
52.  $-i^2 =$   
a. 1 b. -1 c. 0 d. i
53. If  $A = 90^\circ$  then  $\frac{\tan 90}{\cot 90} =$   
a. 0 b. 1 c.  $\infty$   
d. indeterminate form
54. Find area of triangle ABC if sides are 3, 4 and 5  
a. 6 sq. unit b. 7 sq. unit  
c. 9 sq. unit d. 10 sq. unit
55.  $\sin^2 90^\circ + \cos^2 2 \times 45^\circ$   
a. 0 b. 1 c.  $\frac{1}{\sqrt{2}}$  d.  $\sqrt{3}$
56.  $|x| < 1 =$   
a.  $-1 < x \leq 1$  b.  $-1 < x < 1$   
c.  $x = 1$  d.  $-1 \leq x \leq 1$
57.  $[a, b]$   
a.  $a \leq x \leq b$  b.  $a < x < b$   
c.  $a < x \leq b$  d.  $a \leq x < b$

58. A point where perpendicular drawn from vertices to opposite side meet  
 a. centroid      b. incenter  
 c. orthocenter    d. excentre
59.  $n(U) = 120, n(A) = 60, n(B) = 40, n(A \cap B) = x$  and  $n(\overline{A \cup B}) = 30$  then  $x =$   
 a. 20      b. 10      c. -10      d. 0
60. If  $A \subseteq B$  and  $B \subseteq A$  then  
 a.  $A \neq B$       b.  $A = B$   
 c. Many be a or b      d. None of these
61. Which of the following are equal pair  
 a. (1,2) and (2,1)      b. (1,1) and (2,2)  
 c. (1,1) and (-1, -1)      d. (1,2) and (1,2)
62. Degree of polynomial  $ax^4 + bx + 2 = 0$  is  
 a. undefined      b. 3      c. 4      d. 1
63. The nature of roots of the polynomial  $x^2 - 7x + 12 = 0$   
 a. equal      b. imaginary  
 c. real and distinct      d. perfect square
64. Find determinant of Matrix ( $A = (4)$ )  
 a. 4      b. -4      c. 0      d. -1
65. For Matrix A, if  $a_{ij} = a_{ji}$  for i and j then matrix A is known as  
 a. Symmetric – matrix  
 b. Skew –symmetric matrix  
 c. triangular matrix  
 d. none of these
66. Geometric mean between 4 and 16 is  
 a. 4      b. 6      c. 8      d. 10
67.  $1 + 3 + 5 + 7 + \dots + 31 =$   
 a.  $(32)^2$       b.  $(31)^2$   
 c.  $(30)^2$       d.  $(25)^2$
68.  $[x^{(b-c)}]^{(b^2+bc+c^2)} \times (x^{(c-a)})^{a^2+ac+c^2} \times (x^{(a-b)})^{a^2+ba+b^2}$   
 a. 0      b. 1      c. -1      d.  $x^{a+b+c}$
69. Find the probability of getting red card form well – packed cards at once  
 a.  $\frac{1}{2}$       b.  $\frac{3}{4}$       c.  $\frac{4}{3}$       d.  $\frac{2}{5}$
70. If  $2^3 = 8$  then which of the following is true  
 a.  $\log_2 8 = 3$       b.  $\log_2 3 = 8$   
 c.  $\log_2 4 = 8$       d. none of these
71. Find the greatest number that will divide 43, 91 and 183 as to leave the same remainder in each case  
 a. 4      b. 7      c. 9      d. 13
72. A and B invest in a business in the ratio of 3:2. If 5% of the total profit goes to charity and A's share is Rs 885 the total profit is  
 a. Rs 1425      b. Rs 1500  
 c. Rs 1537      d. Rs 1576
73. In what ratio must water be mixed with milk to gain 20% by selling the mixture at cost price?  
 a. 5:1      b. 1:5      c. 1:6      d. 6:1
74. What is the probability of getting a number having 3 as a digit in counting form 1 to 100 is  
 a. 1/5      b. 21/100  
 c. 23/100      d. 19/100
75. If 3, x, 7 are in H.P then value of x is  
 a.  $\frac{15}{2}$       b.  $\frac{7}{4}$       c.  $\frac{21}{5}$       d.  $\frac{25}{4}$
76. The angle of elevation of a cloud from a point 200 m above a lake is 30° and angle of depression of its reflection in the lake is 60° then height of the cloud is  
 a. 200 M      b. 300 M  
 c. 400 M      d. 600 M
77. C, F, I, L, O, ?  
 a. R      b. S      c. T      d. V
78. DFHJ : WUSQ :: HJLN : ?  
 a. RTVX      b. TWYZ  
 c. PRTWC      d. SQUM
79. If the day before yesterday was Thursday when will Sunday  
 a. Today      b. Tomorrow  
 c. Two days after today      d. day after tomorrow
80. A man is facing west. He turns 45° in anti clockwise directions and two and their 180° in same direction. When direction is he facing now?  
 a. N-E      b. S-E  
 c. south      d. west
81.  $\log_3 27$   
 a. 3      b. 4      c. 5      d. 6
82. The area of a bus with sides 13 cm and one diagonal 10 cm will be  
 a.  $120 \text{ cm}^2$       b.  $110 \text{ cm}^2$   
 c.  $100 \text{ cm}^2$       d.  $160 \text{ cm}^2$
83. A train 800 m long is running at speed of 78 km/hr. if it crosses a tunnel in 1 min. then the length of the tunnel is  
 a. 130 M      b. 360 m  
 c. 500 m      d. 540 m
84. The height two right circular cones are in the ratio 1:2 and the Ten meters their bases are in the ratio 3:4. Find the ratio of their volumes  
 a. 32:9      b. 9:31  
 c. 3:8      d. 9:32
85. Find the compound interest on Rs 8000 at 15% per annum for 2 years 4 month, compounds annually  
 a. Rs 12 log      b. Rs 11 log  
 c. Rs 13 log      d. Rs 100 log
86. A and B together can complete a piece of work in 15 days and B alone in 20 days. In how many days can A alone complete the work.  
 a. 50 days      c. 40 days  
 b. 30 days      d. 60 days
87.  $2A = 3B = 4C$ , then A:B:C is equal to  
 a. 2:3:4      b. 3:4:6  
 c. 4:3:2      d. 6:4:3
88.  $\frac{3}{7}$  of  $\frac{5}{4}$  of 3024  
 a. 920      b. 940  
 c. 960      d. 1620

## Attempt all questions

Grammar ( $40 \times 1 = .40$ )

39. The mean of the first ten even natural number is  
 a. 9      b. 10      c. 11      d. 12
40. If the cost price of 30 items is equal to the purchase prices of 28 item. What is the profit  
 a.  $15\frac{2}{3}\%$       b.  $16\frac{2}{3}\%$   
 c.  $17\frac{2}{3}\%$       d.  $18\frac{2}{3}\%$
- General Knowledge (10X1=10)**
41. Who developed the principle of Bureaucracy?  
 a. Elton      b. Max Weber  
 c. Van Pavlov      d. Henri Fayol
42. Who does the Nepal Rastra Bank Submit its annual report to  
 a. prime Minister of Nepal  
 b. Parliament of Nepal  
 c. Ministry of Finance  
 d. Auditor General of Nepal
43. How many permanent members are there in the Security Council of UN?  
 a. 10      b. 7  
 c. 5      d. 3
44. Olympic games are held in every .....years  
 a. 2 years      b. 3 years  
 c. 4 years      d. 5 years
45. What is the term to ask the computer to put information in order numerically put alphabetically?  
 a. Crop      b. Report  
 c. Record      d. Sort
46. Which of the following is the a military alliance?  
 a. NAFTA      b. ASEAN  
 c. EEC      d. NATO
47. Which of the following place is not on the direct bus route from Bharatpure to kohalpur?  
 a. Ghorahi      b. Butwa  
 c. Gorusinghe      d. Lamahi
48. The term "Clean sweep" is associated with  
 a. Football      b. Cricket  
 c. Badminton      d. Hockey
49. Which of the following is not a Internet?  
 a. WWW      b. Email  
 c. CDROM      d. HTTP
50. How many bits is a byte?  
 a. 4      b. 8  
 c. 16      d. 32

1. The climate of Pokhara is better than .....  
 a. Kathmandu      b. of Kathmandu  
 c. that of Kathmandu      d. that Kathmandu.
2. I am ..... tired ..... I cannot, walk further.  
 a. Too, to      b. so, to  
 c. so, that      d. to, that
3. One of the ..... Been caught.  
 a. Thief has      b. thieves have  
 c. thieves has      d. thief have
4. You like apples, and so .....?  
 a. Do I      b. I like  
 c. I do      d. did I
5. I am happy, .....?  
 a. Aren't I      b. am I  
 c. amn't I      d. am not I
6. Find out the correct spelling .....  
 a. Inoculation      b. innocuous  
 c. privilege      d. twentieth
7. Some politician are very sensitive ..... criticism.  
 a. For      b. to  
 c. in      d. at
8. To bear with means .....  
 a. To support      b. to have pertinence with  
 c. to give company      d. to confirm
9. He had done that before, ..... he?  
 a. Wouldn't      b. didn't  
 c. hadn't      d. done had
10. One should ..... an effort to improve.  
 a. Take      b. make  
 c. do      d. none
11. ..... university is far higher level studies.  
 a. A      b. the  
 c. An      d. no article
12. She said "who is inside?" The indirect form is .....  
 a. She asked who was inside.  
 b. she asked who is inside.  
 c. she said who is inside.  
 d. she said who was inside

13. Help the poor. The passive form is .....  
 a. Poor must be helped  
 b. you are requested to help the poor  
 c. The poor should be helped.  
 d. the poor might be helped.
14. "May God help you !" The passive form is .....?  
 a. May you to helped  
 b. may you be help  
 c. god might be helped by you  
 d. may you be helped !
15. Everything we need is found in ..... nature.  
 a. a b. an  
 c. the d. no article
16. I had my hair ..... last Saturday.  
 a. To cut b. cut  
 c. cutting d. will cut
17. Kiran ..... Me to work for her.  
 a. Got b. had  
 c. get d. make
18. If he had met me , I ..... helped him.  
 a. Can have b. will have  
 c. would d. would have
19. If he meets me, I ..... help him.  
 a. Will b. would  
 c. could d. should
20. Gold ..... very expensive.  
 a. Were b. would  
 c. could d. are
21. A lot of students ..... taught this course.  
 a. Was b. were  
 c. has d. have
22. One can do it .....?  
 a. Can't one? b. can't it?  
 c. can one? d. none of the above
23. Don't sit here, .....?  
 a. Won't you b. can you?  
 c. shall we d. will you
24. Both of ..... girls have long hair.  
 a. a b. an  
 c. the d. zero article
25. Three kilograms of rice ..... enough.  
 a. Is b. have been  
 c. are d. were
26. Bread and butter ..... Good for health.

- a. are b. is  
 c. both d. none
27. ..... Mt. Everest is 8848 meter high.  
 a. The b A  
 c. An d. none
28. If she had asked me, I ..... her.  
 a. Would have helped b. would help  
 c. will help d. can help
29. The synonym of laud is .....  
 a. Lord b. eulogy  
 c. praise d. extolled.
30. The synonym of prestige is .....  
 a. Influence b. quality  
 c. name d wealth
31. The antonym of expansive is .....  
 a. Generous b. honest  
 c. narrow d. troublesome
32. The antonym of Denounce.....  
 a. Covet b. condemn  
 c. blame d. deplore
33. Call the police .....?  
 a. Don't you b. isn't it  
 c. will you d. do you
34. The ..... antonym of melancholy.....  
 a. Depressed b. prejudiced  
 c. reckless d. cheerful
35. Break the ice mean.....  
 a. To be something with courage  
 b. To win a prize  
 c. To speak first after long silence  
 d. To win someone heart.
36. "Carry the day" means .....  
 a. To have great fun  
 b. to do something wrong  
 c. to win a victory  
 d. to loose something
37. Kick one's heels mean .....  
 a. To dance b. to never stop  
 c. to be quick  
 d. to waste time in waiting
38. Kick the bucket.  
 a. To lose something  
 b. to die  
 c. to maintain peace  
 d. to be in trouble
39. Neither of the boys, ..... to go out.  
 a. Want b. were wanting  
 c. wants d. are wanting
40. This is the choose for the building.  
 a. Cite b. site  
 c. sight d. cites

**Mathematics (50 × 1 = 50)**

41. If  $f(x) = x + 1$  and  $g(x)$  then find  $fog(x) =$   
 a.  $(x+1)$       b.  $(x-1)$   
 c.  $1-x$       d.  $x$
42. If  $f(x) = 3x^2 + 1$ . Find  $f^{-1}(x)$   
 a.  $\frac{x-1}{3}$       b.  $\sqrt{\frac{x-1}{3}}$   
 c.  $\sqrt{x-1}$       d.  $x$
43. Find y-intercept of line  $y = 3x + 2$   
 a. -2      b. 2  
 c. 3      d. -3
44. Slope of line joining  $(1,2)$  and  $(-1,-2)$  is  
 a. 2      b. -2  
 c. -1      d. 0
45. Centre of circle  $x^2 + y^2 + 2x + 3y + 4 = 0$  is  
 a.  $(-1, -\frac{3}{2})$       b.  $(1, \frac{3}{2})$   
 c.  $(-\frac{1}{2}, \frac{3}{2})$       d.  $(1, -\frac{3}{2})$
46. Point  $(0,0,1)$  lies on  
 a. x-axis      b. y-axis  
 c. z-axis      d. xy-plane
47. The diagonal of parallelogram intersect at  
 a.  $\frac{\pi}{6}$       b.  $\frac{\pi}{2}$       c.  $\frac{\pi}{3}$       d.  $\frac{\pi}{4}$
48.  $\lim_{x \rightarrow 0} \frac{ax+b}{cx+d}$   
 a.  $\frac{b}{d}$       b.  $\frac{a}{c}$       c.  $\frac{c}{a}$       d.  $\frac{-a}{c}$
49.  $\frac{d}{dx}(x^n) =$   
 a.  $nx^n$       b.  $xn^{-1}$       c.  $nx^{n-1}$       d.  $x$
50.  $\lim_{x \rightarrow 2} \frac{x^2-4}{x-2}$   
 a. 4      b. -4      c. 2      d. -2
51. The derivatives of  $\cot x$  is  
 a.  $-\operatorname{cosec}^2 x$       b.  $\sec^2 x$   
 c.  $\operatorname{cosec}^2 x$       d.  $\cot^2 x$
52.  $1+\omega + \omega^2 =$   
 a. 1      b. 0      c. -1      d. 2
53. If  $A = 30^\circ$  value of  $\cos 3A$  is  
 a. 0      b. 1      c. -1      d.  $\infty$
54. If an equilateral triangle has side length 3cm. Then its area is  
 a.  $9\sqrt{3}$       b.  $\frac{9\sqrt{3}}{4}$   
 c.  $\frac{3\sqrt{3}}{4}$       d.  $\frac{\sqrt{3}}{4}$
55.  $\cos^2 x - \sin^2 x =$   
 a.  $\sin 2x$       b.  $\cos 2x$   
 c.  $\tan 2x$       d.  $\sin x$
56. If  $x < 0$  then  $(x)$  is equal to  
 a.  $-x$       b.  $x$       c. 0      d. 1
57. Range of the function  $y = |x - 1|$  is  
 a.  $[0, \infty]$       b.  $[0, -1]$   
 c.  $[0, 1]$       d.  $[0, 2]$
58. A point where medians meet is  
 a. in centre      b. ex-centre  
 c. centroid      d. orthocenter
59. The set  $A = \{x : x \in N \text{ and } \sqrt{2x^2 - 1} = -1\}$  is  
 a. finite set      b. infinite set  
 c. null set      d. set with two elements
60. For non-empty set  $A$ ,  $\bar{A}$   
 a.  $U - A$       b.  $A - U$   
 c.  $A$       d. none
61. The number of subset of a set containing 3 elements is  
 a. 4      b. 8      c. 12      d. none
62. If  $A$  is the additive inverse of matrix  $B$  then  
 a.  $A_{2 \times 2} + B_{2 \times 2} = I_{2 \times 2}$   
 b.  $(AB)_{2 \times 2} = I_{2 \times 2}$   
 c.  $(A + B)_{2 \times 2} = O_{2 \times 2}$   
 d. none of the above
63. If  $A = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$  then  $A^2$  is  
 a.  $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$       b.  $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$   
 c.  $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$       d.  $\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$
64.  $1+2+3+4+\dots+\infty = -\frac{1}{12}$  is known as  
 a. Ramanujan Paradox  
 b. Euclid Paradox  
 c. Newton Paradox  
 d. Gauss Paradox
65. The G.M between  $(x-1)$  and  $(x+1)$  is valid for  
 a.  $x=1$       b.  $x \neq 1$   
 c. for  $x = \text{all real numbers}$       d.  $x=0$
66. If  $n(U) = 100$ ,  $n(A) = 45$ ,  $n(B) = 55$ ,  $n(A \cap B) = 10$  then  $n(\overline{A \cup B}) = ?$   
 a. 11      b. 20      c. 30      d. 10
67. The numerical value of  $(81)^{-\frac{5}{4}}$  is equal to  
 a.  $\frac{1}{3}$       b.  $\frac{1}{3^5}$       c.  $\frac{1}{3^4}$       d.  $\frac{1}{3^3}$
68.  $\sqrt{a\sqrt{a\sqrt{a}}} =$   
 a.  $7^{\frac{7}{8}}$       b.  $a^{\frac{8}{7}}$       c.  $a^{\frac{1}{6}}$       d.  $a^{\frac{5}{6}}$
69. The mean of the data 2, 6, 10, 14, 18, 22, 26, 30  
 a. 18      b. 16      c. 18      d. 20
70. 6<sup>th</sup> term of series 2, 4, 8, ....

- a. 48      b. 84      c. 64      d. 32
71. For some integer which of the following is odd integer  
 a. n      b.  $n + 1$   
 c.  $2n$       d.  $2n + n$
72. An unbiased die is tossed. Find the probability of getting a multiple of 3  
 a.  $\frac{1}{3}$       b.  $\frac{1}{2}$   
 c.  $\frac{1}{4}$       d.  $\frac{1}{5}$
73. Two cards are drawn at random from a pack of 52 cards. What is the probability that either both are black or both are queens?  
 a.  $55/221$       b.  $5/221$       c.  $6/221$       d.  $7/221$
74. A ladder leaning against a wall makes an angle of  $60^\circ$  with the ground. If the length of the ladder is 19m. Find the distance of the foot of the ladder from the wall.  
 a. 8.5m      b. 6.5m  
 c. 9.5m      d. 7.5m
75. A, B and C are three contestants in a km race. If A can give B a start of 40m and B can give C a start of 60m, how many meters start can B give C?  
 a. 25m      b. 35m  
 c. 45m      d. 55m
76. The height of a right circular cone is increased by 100% and the radius of the base is reduced by 50%, then the volume of the cone.  
 a. remains unaltered      b. decrease by 25%  
 c. increased by 25%  
 d. increase by 50%
77. How many meters of cloth 5m wide will be required to make a conical tent the radius of whose base is 7m and hypotenuse is 24m  
 a. 110m      b. 115m  
 c. 120m      d. 14m
78. The diameter of the driving wheel of a bus is 140cm. How many revolutions per minute the wheel make in order to keep a speed of 66 kmph?  
 a. 250      b. 270  
 c. 280      d. 290
79. Find the sum of money will amount to Rs 26010 in 6 months rate of 8% per annum when the interest is compounded quarterly.  
 a. 20000      b. 3000  
 c. 30000      d. 2500
80. In how many years will a sum of money double itself at  $6\frac{1}{4}\%$  simple interest per annum  
 a. 17 years      b. 16 years  
 c. 18 years      d. 19 years
81. A train travels 82.6 km/hr. How many meters will it travel in 15 minutes.  
 a. 20650m      b. 22650m  
 c. 23650m      d. none
82. A, B and C can complete a piece of work in 24, 5 and 12 days respectively working together they will complete the same work in  
 a.  $3\frac{4}{13}$  days      b.  $3\frac{1}{13}$  days  
 c. 2 days      d. 5 days
83.  $a+b : b+c : c+a = 6:7:8$  and  $ab + c = 14$  then the value of c is  
 a. 6      b. 7  
 c. 8      d. 14
84. If ratio of CP and SP of a article is 5:7 then find profit %  
 a. 50%      b. 40%  
 c. 30%      d. 20%
85. p is six times as large as a. Then percent that a is less than p is  
 a.  $16\frac{2}{3}\%$       b. 60%      c.  $83\frac{1}{3}\%$       d. 90%
86. The sum of the squares of two positive integers is 100 and the difference of their square is 28. The sum of the number is  
 a. 12      b. 13  
 c. 14      d. 15
87. If  $x = 1 + \sqrt{2}$  and  $y = 1 - \sqrt{2}$ . Find the value of  $x^2+y^2$   
 a. 5      b. 4  
 c. 7      d. 6
88. 3, 5, 7, 12, 17, 19  
 a. 19      b. 17  
 c. 13      d. 12
89. 10, 14, 16, 18, 21, 24, 26  
 a. 26      b. 24  
 c. 21      d. 18
90. 3, 5, 9, 11, 14, 17, 21  
 a. 21      b. 17  
 c. 14      d. 9

**General Knowledge (10X1=10)**

91. On which date UN charter was signed?  
 a. 28th September 1945  
 b. 26th June, 1945  
 c. 20th May 1941

d. 20<sup>th</sup> June 1946

Mock Test

**Saral Shikshya Presents  
BCA Entrance Mock Test -III**

Time: 2 hrs.  
Full Marks: 100

92. How many Principal Organs does United Nations has?  
a. Six    b. eight  
c. Five    d. Ten
93. In which country are the headquarters of FIFA (International Federation of Association Football) located?  
a. Brazil    b. Switzerland  
c. Russia    d. Uruguay
94. When Nepal did have the membership of UN?  
a. September 1, 1940 A.D  
b. December 19, 1995 A.D  
c. December 14, 1955 A.D.  
d. October 20, 1950 A.D
95. Which country is known as land of Kangaroo?  
a. Japan    b. Africa  
c. Australia    d. Turkey
96. Which is the coldest place of Nepal?  
a. Mustang    b. Taplejung  
c. Solukhumbu    d. Manang
97. Which district is known as the 'district of desert'?  
a. Manang    b. Mustang  
c. Dolpa    d. taplejung
98. Who is the first AC transformer Inventors?  
a. Orville Wright and William Wright  
b. Paul Winchell  
c. Sir William Crookes  
d. William Stanley
99. Who is inventors of the Typewriter?  
a. W.A. Burt     b: Galileo  
c. Garrett A. Morgan                                    d. Geoge Estman
100. How many districts are there in the Terai region  
a. 10    b. 20  
c. 27    d. 30

**Attempt all questions**

**Grammar (40X1=40)**

1. My father advises me .....  
a. not to be smoked  
b. not to smoke  
c. don't smoke  
d. never smoke
2. The dumb man and the blind man .....  
a. helps each other  
b. help each other  
c. helps each other  
d. help every other
3. If shyam works hard he never .....the exam.  
a. pass    b. fails  
c. fail    d. will fail
4. While mother was cooking dinner I .....for my exam  
a. Studied    b. Study  
c. had studied    d. was studied
5. Who is creating this mess? Passive form .....  
a. Who has created this mess?  
b. By whom this mess is being relayed?  
c. By whom has this mess been created?  
d. By whom is this mess being created?
6. The word "Sophisticated" is.....  
a. ancient    b. antigul  
c. old    d. modern
7. The word "Nationalism" is .....  
a. noun    b. adjective  
c. adverb    d. verb
8. Bina invite your friends.....  
a. yourself    b. herself  
c. yourselves    d. my self
9. By the next week we .....from dhadling.  
a. shall return  
b. shall have returned  
c. Shall be returned  
d. Shall return.
10. The passive of "Don't clean the room " is .....  
a. Let the room not be cleaned.  
b. Don't let the room cleaned.  
c. let no the room be cleaned.  
d. let the room not cleaned.

11. Time and Tide.....for none.  
 a. wit                            b. waited  
 c. waits                        d. will wait
12. .....Himalayans is in the north of Nepal.  
 a. a                            b. an  
 c. the                          d. no article
13. Nobody came to the party,.....?  
 a. didn't they                b. didn't she/he  
 c. hadn't they                d. did they
14. Fifty miles .....a long distance.  
 a. is                            b. was  
 c. have                        d. none
15. Students go to school .....read and write.  
 a. So that                    b. to  
 c. for                          d. because
16. .....her stupidity, she was selected for the post.  
 a. Because of                b. in spite of  
 c. although                    d. in order
17. If she .....to come, I would be delighted.  
 a. is                            b. was  
 c. had been able             d. were
18. Butter melts if it .....?  
 a. was heated                b. has been heated.  
 c. is heated                  d. heated
19. I am getting him .....my bed.  
 a. make                        b. made  
 c. maked                      d. to make
20. She has gone to get her television.....  
 a. fix                          b. fixed  
 c. fixing                      d. fixes
21. .....are planning an excursion.  
 a. I and you                b. I and he  
 c. He and she                d. I and She
22. .....were absent yesterday.  
 a. We, you and he  
 b. We, you and they  
 c. They, you and We  
 d. We, they and You
23. The Synonyms of "Detest" is .....  
 a. Prefer                      b. loathe  
 c. jealous                     d. forgive
24. He was sad that his seniority had been overlooked.  
 a. rejected                    b. neglected  
 c. confused                    d. sidestepped
25. The Synonym of "Baffle" is .....  
 a. Puzzle                     b. tease  
 c. track                      d. hoodwink
26. The police .....arrested a pick – pocket.
- a. has                          b. have  
 c. are                          d. is
27. He as well as I.....busy.  
 a. is                            b. am  
 c. are                          d. were
28. Binita .....her teeth twice yesterday.  
 a. brushes                    b. was brushing  
 c. has brushed                d. brushed
29. we .....on a picnic tomorrow.  
 a. will go                    b. will be going  
 c. will have gone            d. has been
30. Suraj plays guitar but he .....the piano.  
 a. Did not played            b. does not play.  
 c. do not play                d. does not play
31. The antonym of 'obviously' is .....  
 a. obscurely                b. Surely  
 c. indefinitely                d. certainly
32. The antonym of 'Boost' is .....  
 a. hinder                      b. obstruct  
 c. discourage                d. rebuke
33. The antonym of "demon" is .....  
 a. Charitable                b. Kind- hearted  
 c. angel                      d. fair- minded
34. The mother was concerned .....the study of her child.  
 a. with                        b. at  
 c. about                      d. for
35. We started .....eight in the morning.  
 a. at                            b. in  
 c. on                            d. at, on
36. Take this medicine and you will get rid.....the bed cold.  
 a. of                            b. over  
 c. at                            d. from
37. The .....instinct of a watch dog is the attack stranger who enter its home.  
 a. judicious                b. intimate  
 c. pragmatic                d. primal
38. "Lost in the clouds" means.....  
 a. to enjoy                    b. to wait  
 c. Confused                    d. very much sure
39. "To give up" means.....  
 a. abandon                    b. kill  
 c. go far                     d. help
40. "Hope against hope" means.....  
 a. Very happy  
 b. Vey said  
 c. hope in- spite of disappointment  
 d. hoping great results

## Mathematics (50 × 1 = 50)

41. If  $fog(x) = 1 - 2x$  then  $fog(-1) =$   
 a. -1                          b. 3  
 c. 0                            d. -3
42. If  $f(x) = x^2$  and  $g(x) = (x + 1)$  then  
 $fog(1) =$   
 a. 3                            b. 2  
 c. -2                         d. 4
43. The slope of line  $y = 3$  is  
 a. 0                            b. -1  
 c.  $\infty$                         d. undefined
44. The shortest distance from point  $(-1, -2)$  to x-axis is equal to  
 a. 2                            b. -2  
 c. 1                            d. -1
45. Radius of the circle represented by equation  $(x - 3)^2 + (y - 4)^2 = 4 \cos\theta$  and  $(y - 4)^2 = 4 \sin\theta$   
 a. 16                         b. -4  
 c. 4                            d. 5
46.  $l^2 + m^2 + n^2 =$  where l,m,n are direction cosine of line  
 a. -1                         b. 1  
 c. 0                            d. 2
47. Adjacent sides of the rhombus is  
 a. equal                      b. perpendicular  
 c. unequal                    d. parallel
48.  $\lim_{x \rightarrow 0} \frac{|x|}{x} =$   
 a. 1                            b. -1  
 c. 0                            d. doesn't exist
49.  $\frac{d(10x^2+2)}{dx} =$   
 a.  $20x$                       b.  $20x + 1$   
 c.  $2x$                          d. 0
50.  $\lim_{x \rightarrow \infty} (x - \sqrt{x^2 - 4x})$   
 a. -2                         b.  $\infty$   
 c. 2                            d. 4
51. The derivative of  $\sin x$  with respect to  $\cos x$  is  
 a.  $\cos x$                      b.  $\cot x$   
 c.  $-\cot x$                     d.  $\tan x$
52.  $i^4 =$   
 a. 1                            b. 0  
 c. -1                         d.  $\infty$
53. If  $A = 60^\circ$  then  $\sin 3A =$   
 a. 0                            b. -1  
 c. 1                            d.  $\frac{\sqrt{3}}{2}$
54. Area of triangle with vertices  $(0,0), (0,4)$  and  $(8,0)$  is  
 a. 18 sq. unit                b. 12 sq. unit  
 c. 10 sq. unit                d. 16 sq. unit

55.  $\sec^2 \theta + 1 =$   
 a.  $\cot^2 \theta$                  b.  $\tan^2 \theta$   
 c.  $\cot \theta$                     d.  $\operatorname{cosec}^2 \theta$
56.  $|x - 3|$  for  $x > 3$  equal to  
 a.  $(-x - 3)$                  b.  $-(x - 3)$   
 c.  $(x - 3)$                     d. 1
57. Range of the function  $y = |x|$  is  
 a.  $[0, \infty)$                 b.  $(-\infty, \infty)$   
 c.  $(\infty, 0]$                  d.  $[0, 1]$
58. A point where bisector of internal angle of triangle meets is  
 a. ortho centre              b. incentre  
 c. ex-centre                 d. circumcenter
59. If  $A = \begin{bmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{bmatrix}$  then  $A^2 =$   
 a.  $\begin{bmatrix} \cos \alpha & \sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$   
 b.  $\begin{bmatrix} \cos 2\alpha & \sin 2\alpha \\ -\sin 2\alpha & \cos 2\alpha \end{bmatrix}$   
 c.  $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$   
 d.  $\begin{bmatrix} -1 & 0 \\ 0 & -1 \end{bmatrix}$
60. If a matrix  $A = \begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$  then  $A^4$  is  
 a.  $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$                     b.  $\begin{bmatrix} 1 & 1 \\ 0 & 0 \end{bmatrix}$   
 c.  $\begin{bmatrix} 0 & 0 \\ 1 & 1 \end{bmatrix}$                     d.  $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$
61.  $\sqrt{2 + \sqrt{2 + \sqrt{2 \cos 4\theta}}} =$   
 a.  $\cos \theta$                     b.  $2 \cos \theta$   
 c.  $\cos 2\theta$                  d.  $2 \cos 2\theta$
62. The value of  $\tan 1^\circ \tan 2^\circ \tan 3^\circ \dots \tan 89^\circ$  is  
 a. 1                            b.  $\frac{1}{2}$   
 c.  $\frac{1}{4}$                          d. none
63. A tree is broken by wind. Its upper part touches the ground at point 10m from the foot of the tree and makes an angle  $45^\circ$  with the ground. The entire length of the tree is a.  
 15m                            b. 30m  
 c. 10 m                      d. 20m
64. The set  $\{1, 4, 9, 16, 25, \dots\}$  can be written as  
 a.  $\{x : x = n^2, n \in \mathbb{N}\}$             b.  $\{x : x = n^2, n \in \mathbb{I}\}$   
 c.  $\{x : x = n, n \in \mathbb{N}\}$                 d.  $\{x : x = n^3, n \in \mathbb{N}\}$
65. If A,B,C be three sets such that  $A \cup B = A \cup C$  and  $A \cap B = A \cap C$  then,  
 a.  $A=B$                       b.  $B=C$   
 c.  $A=C$                       d.  $A=B=C$
66. If a, 4, b are in A.P and a, 2, b are in G.P then  
 a, b are in  
 a. H.P                        b. A.P

- MARCH 2014
- O.P.**                    c. none of these
67. If  $b + c, c + a, a + b$  are H.P. then  $a^2, b^2, c^2$  will be in  
 a. A.P.                    b. G.P.  
 c. H.P.                    d. A.G.P.
68.  $3^{-4} \times \frac{1}{9} =$   
 a.  $\frac{1}{3^4}$                     b.  $\frac{1}{3^5}$   
 c.  $\frac{1}{3^6}$                     d.  $\frac{1}{3^2}$
69. The mean of numbers between 19 to 31 is  
 a. 26                    b. 25  
 c. 27                    d. 28
70.  $[a, b] =$   
 a.  $a \leq x \geq b$             b.  $-a \leq x \leq -b$   
 c.  $-a \leq x \leq b$             d. none of these
71. Focus of parabola  $y^2 = 8x$  is  
 a. (0,4)                    b. (0,-4)  
 c. (-4,0)                    d. (4,0)
72. If H.C.F of p and q is x and  $q = xy$ , then the L.C.M of p and q is  
 a. pq                    b. qy  
 c. xy                    d. py
73. If  $a^2 + b^2 = 117$  and  $ab = 54$ , then find the value of  $\frac{a+b}{a-b}$   
 a. 6                    b. 5  
 c. 4                    d. 1
74. A batsman makes score of 87 runs in 17<sup>th</sup> inning and thus increases his average by 3. Find his average after 17<sup>th</sup> inning.  
 a. 93                    b. 49  
 c. 39                    d. 29
75. Sixty-five percent of a number is 21 less than four-fifths of that number. What is the number?  
 a. 145                    b. 135  
 c. 140                    d. 150
76. A vendor bought buttons at 6 for a rupee. How many for a rupee must he sell to gain 20%?  
 a. 5                    b. 6  
 c. 7                    d. 8
77. After getting two successive discounts, a shirt and with a list price of Rs 150 is available at Rs 105. If the second is 12.5%, find the first discount.  
 a. 15%                    b. 20%  
 c. 25%                    d. 30%
78. If  $2x^2 - 7xy + 3y^2 = 0$ , then find the value of x:y.  
 a. 1:2                    b. 3:1  
 c. both a and b            d. 4:1
79. A, B and C enter into partnership. A invests 3 times as much as B invests and B invests two-thirds of what C invests. At the end of the year, the profit earned is Rs 1170. If the profit is shared in the ratio of A:B:C  
 a. 1000                    b. 1100  
 c. 1200                    d. 1300
80. 8 men working for 10 hrs a day to complete a piece of work in 20 days. In how many days can 7 men working for 10 hrs a day complete the same piece of work?  
 a.  $10\frac{4}{7}$                     b.  $20\frac{4}{7}$   
 c.  $1\frac{4}{7}$                     d.  $\frac{4}{7}$
81. A can do a piece of work in 10 days and B in 20 days. They work together for 2 days before the completion of the work. A leaves so in how many days was the work completed?  
 a. 5 days                    b. 6 days  
 c. 4 days                    d. 3 days
82. A man can row 6 km/hr in still water. It takes him twice as long to row as to row down the river. Find the rate of stream.  
 a. 2km/hr                    b. 1km/hr  
 c. 3km/hr                    d. 4km/hr
83. What annual installment will discharge a debt of Rs 1092 due in 2 yrs at 12% simple interest?  
 a. Rs 425                    b. Rs 325  
 c. Rs 225                    d. Rs 125
84. Find the length of the altitude of an equilateral triangle of side 33/2 cm.  
 a. 4.5cm                    b. 5.5cm  
 c. 6.5cm                    d. 7.5cm
85. The radii of three concentric circles are in the ratio 1:2:3. Find the ratio of area between the two inner circles to that between the two outer circles.  
 a. 5:3                    b. 3:5  
 c. 1:3                    d. 3:1
86. Volume of a cylinder with radius(r) and height(h) is  
 a.  $\pi r^2 h$                     b.  $\pi rh$   
 c.  $2\pi rh$                     d.  $\pi r^2 (r+h)$
87. In a km race, A beats B by 28m or 7 seconds. Then, find time of A over the course.  
 a. 4min                    b. 4m3sec  
 c. 5min5sec                    d. none of these
88. Find the total no of straight lines in fig:
- 
- a. 4                    b. 5                    c. 8                    d. 6

Attempt all questions

Grammar (40 × 1 = 40)

89. If the height of a pole  $2\sqrt{3}$ m and the length of its shadows 2m. Find the angle of elevation of the Sun.  
 a.  $60^\circ$       b.  $30^\circ$   
 c.  $45^\circ$       d.  $90^\circ$
90. Two unbiased coins are tossed. What is the probability of getting at most one head?  
 a.  $\frac{3}{4}$       b.  $\frac{4}{3}$   
 c.  $\frac{1}{4}$       d.  $\frac{1}{3}$
- General Knowledge (10 × 1 = 10)**
91. Who is the father of Modern Computer?  
 a. Alan Turing      b. Charles babbage  
 c. Rectnor      d. Haris
92. What is the capital of France?  
 a. Bankok      b. Paris  
 c. Rome      d. France
93. Who is CEO of Microsoft?  
 a. Bill Gates      b. Satya Nadella  
 c. Steive Jobs      d. Donald
94. Who is the first king of Kirant Dyansty?  
 a. Bhuktaman      b. Nimish  
 c. yalambar      d. Abhir
95. Whose autobiography was the long walk to freedom?  
 a. Mahatma Gandhi      b.  
 b. Nelson Mandela      c.  
 c. Md.All Jinnah      d.  
 d. Subash Chandra Bose
96. Which is not the island of japan?  
 a. Hokkaido      b. Honshu  
 c. Shikoku      d. Filasha
97. The name of the largest lake in the world  
 a. Caspian sea      b. Rara Lake  
 c. Baikal      d. Big lake
98. Which nation won the ICC cricket world cup 2011?  
 a. Australia      b. Srilanka  
 c. India      d. England
99. What is the national flower of japan?  
 a. Rose      b. Mary Gold  
 c. White Lily      d. Chrysanthemum
100. Which medical tool was developed by Sanctoriusm in 1612?  
 a. Thermometer  
 b. Blood pressure Measurement  
 c. glucometer  
 d. X-Ray

1. Come and sit..... me.  
 a. With      b. by  
 c. at      d. on
2. Good bye. Have..... nice journey.  
 a. A      b. an  
 c. on article      d. the
3. ..... Father of Albert is sick.  
 a. A      b. An  
 c. The      d. No article
4. B.P Koirala died..... Cancer.  
 a. of      b. for  
 c. about      d. off
5. Namrata has been sick..... two weeks.  
 a. for      b. since  
 c. during      d. at
6. He is married..... my cousins.  
 a. with      b. for  
 c. to      d. none of the above
7. Nothing is good, .....?  
 a. Was it      b. isn't it  
 c. are they      d. is it
8. We'd rather work late, .....?  
 a. Hadn't we      b. wouldn't we  
 c. can't we      d. shouldn't we
9. Either Amit or Mona.....to play badminton.  
 a. Like      b. liked  
 c. likes      d. None
10. Never do it again, .....?  
 a. Can you      b. would you  
 c. won't you      d. will you
11. Neither if you ..... seen him.  
 a. Has      b. have  
 c. had      d. have been
12. He as well as I ..... busy to complete our pending task.  
 a. am      b. were  
 c. is      d. have
13. A pack of dogs..... in the streets at night.  
 a. Roam      b. roamed  
 c. roaming      d. rams

14. The cattle ..... Grazing in the field.  
 a. Is b. have  
 c. was d. are
15. Before she sifted to Pokhara, she ..... In Kathmandu.  
 a. Lived b. lives  
 c. had lived d. is living
16. He said, "How terrible?" indirect speech is.....  
 a. He said that how it was terrible.  
 b. He said it was terrible.  
 c. He said it is terrible.  
 d. None of the above.
17. Our science teachers told us that.....  
 a. Water has frozen at  $0^{\circ}$  Celsius.  
 b. Water froze at  $0^{\circ}$  Celsius.  
 c. Water is frozen at  $0^{\circ}$  Celsius.  
 d. Water freezes at  $0^{\circ}$  Celsius.
18. ..... he is rich, he walks in bare feet.  
 a. So b. Although  
 c. Unless d. Because
19. Who helped you," passive form.....  
 a. By whom were you helped?  
 b. By whom you were helped?  
 c. By whom were helped you?  
 d. Who were helped you?
20. Pardon given to political prisoners .....  
 a. Forgiveness b. amnesty  
 c. clemency d. benevolence
21. The adjective of 'Sense' is.....  
 a. Senses b. sensuous  
 c. sensibility d. sensible
22. The prefix 'dis' is appropriate for.....  
 a. Disobey b. dislead  
 c. despair d. dispare
23. She is the girl to ..... I spoke.  
 a. Who b. which  
 c. that d. whom
24. The opposite meaning of "Acute" is.....  
 a. Sharp b. critical  
 c. dull d. sensitive
25. The similar meaning of "wholesome" is..  
 a. Special b. complete  
 c. healthy d. handsome
26. ..... My father, I am engineer.  
 a. Unlike b. like  
 c. none d. both a and b
27. Either she or her friends are responsible for.....  
 a. Her b. our  
 c. their d. his
28. These books are for.....  
 a. you and me b. you and I  
 c. you and him d. None of the above
29. Synonyms of "Attribute" is.....  
 a. Sweet b. duets  
 c. disagree d. credit
30. "It's a piece of cake" means.....  
 a. Give away a secret  
 b. It's easy  
 c. It's raining hard  
 d. None of the above
31. Make up one's mind means.....  
 a. To be prepared  
 b. To make someone happy  
 c. Make a decision  
 d. To criticize someone
32. The local team scored three goals ..... the first half match.  
 a. At b. for  
 c. in d. on
33. He got me ..... that parcel for him as I was going to the post office anyway  
 a. Posted b. post  
 c. posts d. to post
34. Which of the following is a verb?  
 a. Timed b. particular  
 c. Shorten d. monthly
35. Cut the mustard means.....  
 a. No matter what b. Do a good job  
 c. To take rest d. Had bad time
36. Kill the snake.  
 a. Let kill the snake.  
 b. Let the snake kill  
 c. Let's kill the snake  
 d. Let the snake be killed
37. Antonyms of 'Notorious' is.....  
 a. Bad b. popular  
 c. famous d. both a and c
38. The synonyms of 'purgatory' is.....  
 a. Polluted city b. hell  
 c. heaven d. sky
39. If you teased the dog, it..... Bite you.  
 a. Will b. would  
 c. can d. did
40. There is no exception ..... This rule.  
 a. For b. to  
 c. at d. about

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

41. The H.C.F of  $2^3 \times 3^2 \times 5 \times 7^4, 2^2 \times 3^5 \times 5^2 \times 7^3, 2^3 \times 5^3 \times 7^2$   
 a. 980 b. 880 c. 780 d. 680
42. If  $\frac{b}{a} = 0.25$ , then what is the value of  $\frac{2a-b}{2a+b} + \frac{2}{9}$ ?

a. 1      b. 0      c. -1      d. 2

43. Rs 6500 were divided equally among a certain number of persons. Had there been 15 more persons, each would have got 30 less. Find the original number of persons  
 a. 50      b. 52      c. 53      d. 54

44. In a town with population of 4000, 3000 people are egg eaters, 2000 meat eaters and 1500 eat both eggs and meat. How many are pure vegetarians.  
 a. 400      b. 500      c. 1000      d. 1500

45. Average of even number between 10 to 100 is  
 a. 55      b. 56      c. 50      d. 66

46. The mean of  $1^2, 2^2, 3^2, 4^2, 5^2, 6^2, 7^2$  is  
 a. 10      b. 20      c. 30      d. 40

47. Sum of number is 15 and the sum of their squares is 113. Find the numbers.  
 a. 7, 8      b. 6, 7      c. 8, 9      d. 10, 11

48. If  $2^x \times 8^{\frac{1}{5}} = 2^{\frac{1}{5}}$ , then x is equal to

a.  $\frac{1}{5}$       b.  $-\frac{1}{5}$       c.  $\frac{2}{5}$       d.  $-\frac{2}{5}$

$$49. \sqrt{3\sqrt{3\sqrt{3\sqrt{3}}}} =$$

a.  $3^{\frac{80}{81}}$       b.  $3^{\frac{15}{16}}$       c.  $3^{\frac{1}{16}}$       d.  $3^{\frac{1}{5}}$

50. If  $\log_2[\log_3(\log_2 x)] = 1$ . Find value of x  
 a. 9      b. 10      c. 11      d. 12

51. A man's wage was reduced by 50%. Again the reduced wage was increased by 50%. Find his loss in terms of percentage  
 a. 25%      b. 20%      c. 21%      d. 22%

52. A man sells an article at a profit of 25%. If he had brought it at 20% less and sold it for Rs. 10,50 less, he would have gained 30%. Find the cost price of the article  
 a. 50      b. 60      c. 70      d. 80

53. Find three numbers in the ratio of 3 : 2 : 5 such that the sum of their squares is equal to 1862  
 a. 21, 14 and 35      b. 19, 17, 15  
 c. 22, 26, 28      d. 25, 23, 24

54. 35 women can do a piece of work in 15 days. How many women would be required to do the same work in 25 days?  
 a. 21      b. 22      c. 23      d. 24

55. A and B undertake to do a piece of work for Rs. 600. A alone can do it in 6 days while B alone can do it in 8 days. With the help of C, they finish it in 3 days. Find the share C  
 a. Rs. 100      b. Rs. 75      c. Rs. 85      d. Rs. 95

56. Two trains 240m and 270m in length are running towards each other on parallel lines,

one at the rate of 60 kmph and another at 48 kmph. How much time will they take to cross each other?

a. 18 sec      b. 17 sec      c. 19 sec      d. 20 sec

57. How much water must be added in 60l of milk at  $1\frac{1}{2} l$  for Rs 20 so as to have a mixture worth Rs  $10\frac{2}{3}$  a liter?  
 a. 10l      b. 12l      c. 13l      d. 15l

58. The simple interest on a sum of money is  $\frac{4}{9}$  of the principle. Find the rate percentage time if both are numerically equal.  
 a. 6 years      b. 6 years 8 months  
 c. 8 months      d. 7 years

59. In how many years will a sum of money double itself at 4% compound interest per annum?  
 a. 16 years      b. 20 years  
 c. 18 years      d. 22 years

60. If each side of square is increased by 25%. Find the percentage change in its area.  
 a. 46.25%      b. 56.25%  
 c. 76.25%      d. 36.25%

61. A rectangular courtyard, 3.78m long and 5.25m board, is to be paved exactly with square tile all of the same size and the least number of tile covered.  
 a. 450      b. 650      c. 750      d. 850

62. The perimeter of an isosceles right-angled triangle having an area of  $162\text{cm}^2$  is  
 a. 40cm      b. 56.5cm  
 c. 61.38cm      d. 68.2cm

63. Three solid cubes of sides 1cm, 6cm and 8cm are melted to form a new cube. Find the surface area of the cube so formed.

a.  $486\text{cm}^2$       b.  $186\text{ cm}^2$   
 c.  $386\text{ cm}^2$       d.  $286\text{ cm}^2$

64. The surface area of a cube is  $173499\text{cm}^2$ . Find its volume

a.  $4193\text{ cm}^3$       b.  $5013\text{ cm}^3$   
 c.  $5114\text{ cm}^3$       d.  $5164\text{cm}^3$

65. In a race of 80m. A can give start of 5m to B and C to 15m. What distance (start) B can give C in race of 60m?

a. 8m      b. 9m      c. 10m      d. 11m

66. Find slope of straight line  $y = 0$   
 a. 0      b. 1      c. -1      d. undefined

67. Find value of k for which coordinates (1, 2), (2, k) and (3, 4) are collinear

a. 3      b. -3      c. 4      d. 2

68. If  $m_1$  and  $m_2$  are slope of straight lines represented by  $4x^2 + 3xy - 2y^2 = 0$  then  $m_1, m_2$   
 a. 2      b. -2      c. 3      d. -3
69. Find angle between pair of lines represented by  $3x^2 + 3xy + y^2 = 0$   
 a. 0      b.  $\frac{\pi}{2}$       c.  $\frac{\pi}{4}$       d.  $\frac{\pi}{6}$
70. Centre of the circle  $x^2 + y^2 - 2gx + c = 0$  is  
 a. (-g, -f)      b. (g, 0)  
 c. (0, g)      d. (0, 0)
71. Circle  $x^2 + y^2 + 2gx + 2fy + c = 0$  touches x-axis then  
 a.  $f^2 = 0$       b.  $g^2 = c$   
 c.  $g^2 = -c$       d.  $f = g$
72. Point (2, 3, 0) lies on  
 a. x-axis      b. y-axis  
 c. yz-plane      d. xy-plane
73. Focus of parabola  $y^2 = -16x$  is  
 a. (4, 0)      b. (-4, 0)  
 c. (0, 16)      d. (-16, 0)
74.  $\lim_{x \rightarrow \infty} \frac{3x^7+1}{4x^7+2} =$   
 a.  $\frac{3}{4}$       b.  $\frac{4}{3}$       c.  $\frac{1}{3}$       d.  $\frac{1}{4}$
75.  $\lim_{x \rightarrow \infty} \frac{\sin x}{x} =$   
 a. 1      b. -1      c. 0      d.  $\infty$
76.  $\frac{d(x^{-5})}{dx} =$   
 a.  $5x^4$       b.  $-5x^{-5}$       c.  $-5x^{-6}$       d. 0
77.  $\frac{d(e^{\sqrt{x}})}{dx} =$   
 a.  $\sqrt{x}$       b.  $\frac{e^{\sqrt{x}}}{2\sqrt{x}}$       c.  $e^{\sqrt{x}}$       d. 1
78.  $\lim_{x \rightarrow a} \frac{x^m - a^m}{x - a} = ma^{m-1}$  where m =  
 a. rational number      b. irrational number  
 c. complex number      d. real number
79.  $n(U) = 200$ ,  $n(A) = 100$  and  $n(B) = 50$  then  $n(\overline{A \cup B}) = ?$  If A and B are disjoint set.  
 a. 50      b. 100      c. 200      d. 0
80.  $2 + 4 + 6 + 8 + \dots$   
 a.  $\frac{n(n+1)}{6}$       b.  $n(n+1)$   
 c.  $n^2$       d. n
81.  $a, a + 2d, a + 4d$  are in  
 a. A.P      b. G.P      c. H.P      d. G.A.P
82. Athematic mean between 8 and 24 is  
 a. 18      b. 16      c. 20      d. 21
83. The probability of even prime number between 1 and 10 is  
 a.  $\frac{1}{5}$       b.  $\frac{2}{5}$       c.  $\frac{1}{7}$       d.  $\frac{3}{5}$
84. Two coin are tossed simultaneously then find the total number of sample space
85. a. 4      b. 2      c. 3      d. 6  
 If A and B are inverse of each other then  
 a. order of A and B are same  
 b.  $AB = BA = I$   
 c.  $A + B = 0$   
 d. both a. and b.
86. Find determinant of A = (-5)  
 a. 5      b. -5      c. 0      d. 4
87. Number of student ahead of Ram in class is 5 and rank of Ram from last is 15, then total no. of students in class is  
 a. 20      b. 21      c. 22      d. 23
88. A book always has  
 a. cover      b. page  
 c. diagram      d. chapter
89. If CMAT is coded as 3, BSCIT is coded as 4 and BCA is coded as 2. Then KATHMANDU is coded as  
 a. 6      b. 5      c. 7      d. 8
90. 2, 3, 5, 7, 11, ?  
 a. 13      b. 17      c. 15      d. 19

**General Knowledge ( $10 \times 1 = 10$ )**

91. What is the national flower of Japan?  
 a. Rose      b. Mary Gold  
 c. White lilly      d. Chrysanthemum
92. Who is the first king of Gopal dynasty?  
 a. Bhuktamari      b. Bhumi Gupta  
 c. Angshuverma      d. Yalambar
93. Which organization is the watchdog of international trade?  
 a. The World Bank      b. IMF  
 c. WTO      d. IFC
94. Whose signature is found on fifty rupee note?  
 a. president      b. Prime minister  
 c. Governor of NRB      d. Finance Minister
95. Which is the longest day on the earth?  
 a. Jun 21      b. March 22  
 c. January 21      d. August 21
96. The largest district of Nepal is  
 a. Dolpa      b. Dolakha  
 c. Ramechhap      d. Manang
97. Which of the following is the most elastic?  
 a. Carbon      b. rubber  
 c. glass      d. paper
98. Bank of Kathmandu has been established in Nepal with collaboration with.

**Saral Shikshya Presents  
BCA Entrance Mock Test -V**

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

**Attempt all questions**

**Section: I (English)**

- a. Habib Bank of Pakistan
  - b. Siam Commercial Bank Thailand
  - c. State Bank of India
  - d. Asian Bank of Russia
9. Which is the coldest planet?
- a. Jupiter
  - b. Mercury
  - c. Neptune
  - d. Earth
10. Which of the following is a greenhouse gas?
- a. oxygen
  - b. nitrogen
  - c. Carbon dioxide
  - d. hydrogen

1. I .....tennis once or twice a week
  - a. is playing usually
  - b. usually playing
  - c. usually play
  - d. play usually
2. .....Rich are proud an selfish.
  - a. A
  - b. An
  - c. The
  - d. No article
3. I am not a fried .....?
  - a. are I
  - b. am I
  - c. aren't I
  - d. am not
4. He mustn't do it ,....?
  - a. do he
  - b. must he
  - c. didn't he
  - d. none of the above
5. I'm confident .....her success.
  - a. of
  - b. in
  - c. about
  - d. for
6. She is adverse .....my interest.
  - a. to
  - b. in
  - c. at
  - d. on
7. If I were him , I .....that building.
  - a. bought
  - b. will buy
  - c. would have bought
  - d. would buy
8. Don't worry .....late to might
  - a. If I'm
  - b. When I am
  - c. When I'll be
  - d. If I'd be
9. If he end of the street , turn .....your left
  - a. to
  - b. in
  - c. on
  - d. none
10. Let me go.....?
  - a. shall we
  - b. Shall I
  - c. Will you
  - d. shall you.
11. The word "fire" takes the prefix .....
  - a. miss
  - b. meno
  - c. die
  - d. mid
12. He's the one .....comes so late.
  - a. Which
  - b. who
  - c. Whom
  - d. that
13. Which takes a singular verb?
  - a. news
  - b. scissors
  - c. clergy
  - d. Furniture

14. She said, "Who is inside?" The indirect form is .....  
 a. She asked who was inside  
 b. She asked who is inside.  
 c. She said who was inside.  
 d. She said who inside was
15. To smell the rat means.....  
 a. to smell a bad foul  
 b. to see a hidden meaning  
 c. to suspect a trick or deceit  
 d. to misunderstand
16. One who hates mankind is?  
 a. misanthrope      b. thermometer  
 c. thermometer      d. Philanthrope.
17. Please.....the cigarette. it irritates me.  
 a. put down      b. put out  
 c. put away      d. put in
18. This bed is not ..... for two people to see in.  
 a. as wide as      b. wide enough  
 c. wide enough      d. quite wider
19. One should not knock at the door .....?  
 a. Shouldn't one      b. Should one  
 c. Should they      d. should he
20. The passive form of "Do we eat sand".  
 a. is sand eaten?      b. was sand eaten?  
 c. Did we eat sad?      d. sand is eaten.
21. What is the synonym of "present"?  
 a. free      b. gift  
 c. suggest      d. greet
22. He plays ..... football.  
 a. a      b. an  
 c. the      d. No article
23. Said his boss make him .....late gain last night?  
 a. work      b. to work  
 b. worked      d. works
24. Dar neighbor always complains .....the noise made by us.  
 a. about      b. overs  
 c. by      d. on
25. Slices the beans means .....?  
 a. postpone a plan  
 b. 21 overs will decision  
 c. Give away a secret.  
 d. None
26. Snowed under means?  
 a. Busy      b. free  
 c. wandering somewhere  
 d. Never happy.
27. Synonym of Acute is.....  
 a. Dull      b. innocent  
 c. Severe      d. None
28. Antonyms of abate is.....  
 a. Enlarge      b. Decrease  
 c. both a & b      d. Increase
29. My mom lets me .....late at the weekend  
 a. Stay up      b. stayed up  
 c. staying up      d. to stay up
30. I .....my house broken into last night, I'm .....  
 upset!  
 a. Let      b. made  
 c. had      d. make
31. You and I .....respect for the lose  
 a. an      b. was  
 c. have      d. are
32. The news .....read by P.M.  
 a. are      b. have been  
 c. were      d. is
33. I got rid.....him this week.  
 a. with      b. of  
 c. over      d. in
34. She .....on my bed yesterday.  
 a. lie      b. lied  
 c. laid      d. lay
35. How many syllable in the word "Stud out"  
 a. 2      b. 3  
 c. 4      d. 5
36. In which part of the word "absent" does the stress falls on.  
 a. first      b. mid  
 c. last      d. none
37. Earth is round .....?  
 a. do it?      b. is it  
 c. isn't it      d. none
38. Let us work hard,.....?  
 a. will you?      b. shall we  
 c. Shall you      d. will you
39. He is proficient .....English grammar.  
 a. at      b. in  
 c. on      d. over
40. The antonym of superficial is.....  
 a. imprudent      b. profound  
 c. gullible      d. found

**Mathematics 50X1=50**

41. Two ordered pairs  $(x + 2y, 3)$  and  $(-1, 2x - y)$  are equal, then the value of x and y are.....  
 a. 1,0      b. 1,-1  
 c. 2,1      d. 2,-1
42. If  $A = \{1, 3, 5\}$  and  $B = \{1, 2, 7, 8\}$ , then  $n(A * B) = .....?$   
 a. 6      b. 3      c. 9      d. 12

43. If  $A^4 = I$ , then  $A^{-1} = \dots$ ?
- $\frac{A^3}{3} - I$
  - $4A^4$
  - $A^2$
  - $A^3$
44. The difference between the sum of first  $n$  even numbers and first  $n$  odd numbers is.....
- $n$
  - $n-1$
  - $n^2$
  - none
45. The value of  $x$  for  $\sum_{i=1}^3 (x * i - 4) = 8$  is.....?
- 2
  - 3
  - 4
  - 5
46. If  $\frac{1}{9} + \frac{1}{10} = \frac{x}{11}$ , then the value of  $x$  is
- 121
  - 100
  - 120
  - 140
47. If  $3 + I$  is a root of  $x^2 + ax + b = 0$ , then  $a = \dots$ ?
- 3
  - 3
  - 6
  - 6
48. The equation whose roots are the reciprocal of the roots of the equation  $5x^2 - 4x + 3 = 0$  is.....?
- $3x^2 - 4x + 5 = 0$
  - $4x^2 + 3x - 5$
  - $3x^2 + 5x + 4 = 0$
  - none
49. In  $\Delta ABC$ , if  $a=2c$  and  $b=3c$ , then  $\cos B =$
- 1
  - $\frac{1}{2}$
  - $\frac{1}{3}$
  - 1
50.  $\int (ax+b)^n dx =$
- $\frac{(ax+b)^{n+1}}{n+1}$
  - $\frac{(ax+b)^{n+1}}{(n+1)a}$
  - $\frac{x^2}{a}$
  - $\frac{nx}{a}$
51.  $\lim_{x \rightarrow \infty} \frac{2x^2+3x-1}{x^2+5x-6} = \dots$ ?
- 1
  - 2
  - 3
  - 4
52. If  $y = x^{-\frac{1}{2}}$ , then  $\frac{dy}{dx} =$
- $\left(\frac{2}{3}\right)x^{-\frac{1}{3}}$
  - $\left(\frac{3}{5}\right)x^{\frac{5}{3}}$
  - $\left(-\frac{3}{5}\right)x^{\frac{5}{3}}$
  - none
53. The slope of a vertical line is.....
- 0
  - $\infty$
  - $-\infty$
  - 3
54. The centroid of the triangle with vertices  $(0,0)$ ,  $(2,3)$  and  $(4,-3)$  is.....
- $(2,0)$
  - $(3,0)$
  - $(6,0)$
  - $(0,2)$
55. The probability of getting an ace of hearts from a deck of 52 cards is....
- $\frac{1}{52}$
  - $\frac{4}{13}$
  - $\frac{1}{26}$
  - $\frac{13}{52}$
56. If M.P = Rs 750, discount percent = 10%, then S.P =
- 825
  - 800
  - 650
  - 675
57. The C.I on a sum of money in 2 years at the rate of 10% p.a. will be Rs. 420 more than S.I. then the sum is.....
- Rs 42,000
  - Rs 40,000
  - 39,750
  - 38,400
58. Father is three times as old as his son. If the difference of their ages is 24 years, find their present ages....?
- 28,4
  - 36,12
  - 48,24
  - 54,30
59. If the diagonals of a rhombus are 10 cm and 4 cm respectively, then area of the rhombus is....
- $20 \text{ cm}^2$
  - $10 \text{ cm}^2$
  - $18 \text{ cm}^2$
  - $15 \text{ cm}^2$
60. A tower on the bank of a river is of 20 m high and the angle of elevation of the top of the tower from the opposite bank is  $30^\circ$ . The breadth of the river is.....
- $10\sqrt{3}$
  - $20\sqrt{3}$
  - $5\sqrt{3}$
  - $\frac{20}{\sqrt{3}}$
61. In a group of 100 students, 68 like football, 60 like volleyball and 2 don't like any of the games. Then, the number of students who like both the games is....
- 40
  - 30
  - 68
  - 32
62.  $\frac{7^{a+1} + 9 \times 7^a}{7^{a+2} - 45 \times 7^a} =$
- 6
  - 16
  - 4
  - 0
63. If mean( $\bar{X}$ ) = 12,  $\sum fn = 70 + 10a$ , frequency ( $N$ ) =  $5+a$  then the value of  $a$  is
- 6
  - 5
  - 3
  - 2
64. If  $\tan \alpha = \frac{1}{p}$  and  $\tan \beta = p$ , then  $\alpha + \beta =$
- $\frac{\pi}{4}$
  - $\frac{\pi}{2}$
  - $\frac{\pi}{3}$
  - $\frac{2\pi}{3}$
65. The range of the function  $f(x) = \frac{|x+2|}{x+2}$  is
- R
  - $R - \{1\}$
  - $\{1, -1\}$
  - $[0, \infty)$
66. If the length of a rectangle is halved and its breadth is tripled, what is the percentage change in its area?
- 25% increase
  - 25% decrease
  - 50% decrease
  - 50% increase

67. A car owner buys diesel at Rs 7.50, Rs 8 and Rs 8.50 per liter for three successive years. What approximately is the average cost per litre of diesel if he spends Rs 4,000 each year?  
 a. Rs 8                    b. Rs 7.98  
 c. Rs. 6.2                d. Rs 8.1
68. One half of a number is 17 more than one-third of that number. What is the number?  
 a. 52                    b. 84  
 c. 102                   d. 112
69. In a camp, there is a meal for 120 man or 200 children. If 150 children have taken the meal, how many men will be catered to with remaining meal?  
 a. 50                    b. 30  
 c. 40                    d. 10
70. How many times in a day, the hands of a clock are straight?  
 a. 22                    b. 44  
 c. 48                    d. 24
71. What is the least numbers which when divided by 5,6,7 and 8 leaves a remainder 3, but when divided by 9 leaves no remainder?  
 a. 1108                b. 1683  
 c. 2007                d. 3363
72. Find the ratio in which rice at Rs 7.20 a kg be mixed with rice at Rs 5.70 a kg to produce a mixture worth Rs 6.30/kg?  
 a. 4:3                   b. 3:4  
 c. 2:3                   d. 3:2
73. If  $x$  and  $y$  are positive integer such that  $(3x+7y)$  is a multiple of 11, then which of the following are divided by 11?  
 a.  $9x+4y$               b.  $x+y+4$   
 c.  $4x-9y$                 d.  $4x+6y$
74. Kamal started a business with Rs 25,000 and after 4 months Karan joined him with Rs 60,000. Kamal received Rs 58,000 including 10% of profit as commission for managing the business. What amount did Karan receive?  
 a. 75,000                b. 70,000  
 c. 72,000                d. 78,000
75. If  $20\% \text{ of } a = b$ , then  $b\% \text{ of } 20$  is the same as:  
 a. 10% of  $a$             b. 4% of  $a$   
 c. 20% of  $a$             d. 25% of  $a$
76. In how many different ways can the letters of the word CORPORATION be arranged so that the vowels always come together?  
 a. 47,200                b. 48,000  
 c. 42,000                d. 50,400
77. The average age of a class of 22 students is 21 years. The average is increased by 1 when the teacher's age is also included. What is the age of the teacher?  
 a. 48                    b. 45  
 c. 43                    d. 44
78. A train having a length of 240m passes a post in 24 seconds. How long will it take to pass a platform having a length of 650m?  
 a. 113 sec              b. 99 sec  
 c. 89 sec                d. 80 sec
79. Murali purchased 20 dozens of toys at the rate of Rs 375 per dozens. He sold each of them at the rate of Rs 33. Find the profit percentage.  
 a. 3.5                    b. 5.6  
 c. 4.1                    d. 3.4
80. If  $6m = 46656$ , then what is the value of  $m-2$ ?  
 a. 36                    b. 7774  
 c. 216                   d. 1296
81. Two boys start from the same place walking at the same rate of 5 kmph and 5.5 kmph resp. in the same direction. What time will they take to be 8.5 km apart?  
 a. 17 hr                b. 14 hr  
 c. 12 hr                d. 19 hr
82. A work can be finished in 16 days by 20 women. The same work can be finished in 15 days by 16 men. The ratio between the capacity of a man and a woman is.....  
 a. 1:3                    b. 4:3  
 c. 2:3                    d. 2:1
83. The probability of A getting a job is  $1/5$  and that of B is  $1/7$ . What is the probability that only one of them get the job?  
 a.  $\frac{11}{35}$                 b.  $\frac{12}{35}$   
 c.  $\frac{2}{7}$                     d.  $\frac{1}{7}$
84. The price of 24 apples is equal to that of 28 oranges. The price of 45 apples and 60 oranges together is Rs 1350. The total price of 30 apples and 40 oranges is  
 a. 920                   b. 940  
 c. 880                   d. 900
85. A is two years older than B who is twice as old as C. If the total ages of A, B and C be 27, then how old is B?  
 a. 7                      b. 8                    c. 9                    d. 10
86. The value of  $\log_{2} 16$  is  
 a.  $\frac{1}{8}$                     b. 4                    c. 9                    d. 16
87. In a 100m race, A beats B by 10m and C by 13m. In a race of 180m, B will beat C  
 a. 5.4m                b. 4.5m  
 c. 5m                    d. 6m
88. Two pipes A and B can fill a tank in 20 and 30 minutes respectively. If both the pipes are used together, then how long will it take to fill the tank?  
 a. 12min                b. 15min  
 c. 25min                d. 50min

Time: 2 hrs.

Full Marks: 100

Attempt all questions

## Section: I (English)

1. The poet and novelist \_\_\_\_\_  
 a. are delivering speech  
 b. is delivering speech  
 c. were delivering speech  
 d. deliver speech
2. Nowadays, Preety \_\_\_\_\_ pop songs.  
 a. used to sing      b. is used to sing  
 c. is used to singing      d. would be singing
3. The active voice of "The Constitution of Nepal was promulgated on 3rd Ashoj 2072, is \_\_\_\_\_  
 a. The PM promulgated the constitution of Nepal on 3rd Ashoj 2072.  
 b. The constituent assembly promulgated the constitution of Nepal on 3rd Ashoj 2072.  
 c. The house of Representative promulgated the constitution of Nepal on 3rd Ashoj 2072.  
 d. Prachanda promulgated the constitution of Nepal on 3rd Ashoj 2072.
4. The direct speech of : The notice board welcomed us in Ilam, is \_\_\_\_\_  
 a. "Welcome in Ilam."  
 b. "Welcome at Ilam."  
 c. "Welcome on Ilam."  
 d. "Welcome to Ilam."
5. My wallet was \_\_\_\_\_ the pillow.  
 a. below      b. under      c. above      d. down
6. I cannot continue to be in this job \_\_\_\_\_. You will offer to double my salary.  
 a. even though      b. if  
 c. although      d. even if
7. If I were you, \_\_\_\_\_  
 a. I will study hard  
 b. I would study hard  
 c. I would have studied hard  
 d. I would studied hard
8. Everyday, I look \_\_\_\_\_ the mirror.  
 a. at      b. on      c. in      d. into
9. FAKE is close to  
 a. Original      b. Imitation  
 c. Trustworthy      d. Loyal
10. COMMON is opposite to

94. If  $0.75 \times x = 5/8$ , then x is equal to...

- a. 1.12      b. 1.2  
 c. 1.25      d. 1.30

95. 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: III  
General Awareness ( $25 \times 1 = 25$ )

91. How many times Australia have won Female ICC cricket world cup?

- a. 3      b. 4      c. 5      d. 6

92. What is the name of the highest mountain of Europe?

- a. Mount elbrus      b. Kilimanjaro  
 c. Mount Killer      d. Mount Everest

93. Which instrument is used for measuring the Rain?

- a. Rain meter      b. Rain gauge  
 c. Rainometer      d. water meter

94. How many countries are there in South America?

- a. 12      b. 44  
 c. 14      d. 32

95. The headquarter of Jhapa is  
 a. Damak      b. Chandragadi  
 c. Birtamod      d. jhapa96. Harare is the capital city of  
 a. Rwanda      b. Zimbabwe  
 c. Cyprus      d. Tajikistan97. When is 'sagarmatha' day celebrated?  
 a. 5 may      b. 8 march  
 c. 29 may      d. 1 April98. Where is the Headquarter of CIA?  
 a. Geneva      b. New York  
 c. Virginia      d. Rome99. Which nation won the first cricket world cup title?  
 a. Australia      b. England  
 c. West indies      d. India100. Who is the first person to get Ph.D degree from TU?  
 a. Mohan Jha      b. Gehendra Shumsher  
 c. Lunna Bhatta      d. Ram paudel

- a. Bizarre                    b. Ordinary  
 c. Normal                    d. Usual
11. One who eats everything  
 a. Omnivorous              b. Omniscient  
 c. Irrestible                d. Insolvent
12. The fear of animal is.....  
 a. Zoophobia                b. Cynophobia  
 c. Nyctophobia             d. Octophobia
13. I have not seen .....eucalyptus plant.  
 a. a                          b. an  
 c. the                        d. nothing
14. We hardly won the match, .....?  
 a. did we                    b. didn't we  
 c. hardly we                d. weren't we
15. What is the syllable structure of the word 'democracy'?  
 a. CVCVCCVVC             b. CVCCCCV  
 c. VCCVCCVVC             d. CCVVCCVC
16. The sentence 'Do you like tea or coffee?' has normally a.....intonation.  
 a. Rising                    b. Falling  
 c. Fall-rise                d. Rise-fall
17. Tom will get his eyes.....  
 a. to check                b. check  
 c. checked                 d. will be checked
18. Which of the following is the prefix of 'polite'?  
 a. Un                        b. Im  
 c. Dis                        d. In
19. The fear of books is.....  
 a. Barophobia              b. Bibliophobia  
 c. Botanophobia            d. Bacteriophobia
20. 'Cup of tea' means?  
 a. Hobby of somebody  
 b. Problem of somebody  
 c. Weakness of somebody  
 d. Both a & b
21. Which of the following is the suffix of 'meaning'?  
 a. ous                      b. ish  
 c. ly                        d. less
22. Which of the following is a complex sentence?  
 a. Binod is absent today because of sickness.  
 b. Binita is suffering from fever.  
 c. Bishal is suffering from fever or diarrhoea.  
 d. Both a & c.
23. Pradip is as clever as Chandra. Its negative is.....  
 a. Pradip is not as clever as Chandra.
- b. Pradip is so clever as Chandra.  
 c. Pradip is much clever than Chandra.  
 d. Pradip is also clever.
24. In response .....the advertisement, I would like to apply for the post of marketing officer.  
 a. to                        b. with  
 c. of                        d. than
25. My uncle, .....bike is new, is coming.  
 a. which                    b. whom  
 c. who                      d. whose
26. See! It .....Outside.  
 a. is drizzling            b. drizzle  
 c. drizzles                d. will drizzle
27. To draw a line.....  
 a. to improve certain restrictions  
 b. to restart  
 c. to have a fair game  
 d. to decide evenly
28. You must.....hard.  
 a. working                b. be working  
 c. work                    d. to work
29. .....it was raining heavily, we played volleyball.  
 a. though                    b. although  
 c. even though            d. even if
30. I have.....tea in my cup.  
 a. a few                    b. a little  
 c. much                    d. less
31. The poet and novelist.....coming.  
 a. are                      b. is  
 d. were                    d. have been
32. Let.....have the share of the profit.  
 a. they                    b. we  
 c. them                    d. she
33. Which of the following is acceptable?  
 a. with respect to  
 b. in response of  
 c. in comparison with  
 d. deprived off
34. Which of the following is an adverb?  
 a. fastly                    b. well  
 c. good                    d. worst
35. If water is boiled, it.....  
 a. won't vapor            b. will vapor  
 c. vapor                    d. vapors
36. The antonym of 'dawn' is.....  
 a. day                      b. dusk  
 c. fawn                    d. twilight
37. The synonym of 'replica' is.....

- a. duplicate      b. public  
c. coca      d. republic
8. The data.....incorrect.  
a. is      b. are  
c. had      d. have been
9. The birds are.....the tree.  
a. above      b. over  
c. across      d. by
10. Let me.....myself.  
a. introducing      b. to introduce  
c. introduce      d. be introduced

**Mathematics (50 × 1 = 50)**

11. H.C.F of numbers 5, 15 and 35 is  
a. 5      b. 15      c. 7      d. 35
12. Simplify  $\frac{(0.35)^2 - (0.03)^2}{0.19}$   
a. 0.64      b. 0.74      c. 1      d. 0.01
13. A man divides Rs. 8600 among 5 sons, 4 daughters and 2 nephews. If each daughter receives four times as much as each nephew, and each son receives five times as much as each nephew, how much does each daughter receive?  
a. Rs. 800      b. Rs. 700  
c. Rs. 600      d. Rs. 200
14. In a group of 53 persons, 16 drinks tea but not coffee and 33 drink tea. How many drink coffee but not tea?  
a. 3      b. 7      c. 17      d. 19
15. Average of odd numbers between 20 to 100 is  
a. 60      b. 62      c. 50      d. 51
16. If mean of a, b, c is M and  $ab + bc + ca = 0$ , then the mean of  $a^2, b^2, c^2$  is  
a.  $M^2$       b.  $3M^2$       c.  $6M^2$       d.  $9M^2$
17. The average of four consecutive even number is 27. Find the largest of these numbers  
a. 30      b. 32      c. 33      d. 34
18.  $(64 \div 27a^{-3})^{-\frac{2}{3}} =$   
a.  $\frac{9ax}{16}$       b.  $\frac{9}{16ax}$       c.  $\frac{9}{16x^2a^2}$       d.  $\frac{3}{4}x^{-2}a^{-2}$
19.  $\sqrt{2\sqrt{2\sqrt{2\sqrt{2\sqrt{2}}}}} =$   
a.  $2^{\frac{1}{32}}$       b.  $2^{32}$       c.  $2^{\frac{31}{32}}$       d.  $2^{\frac{1}{5}}$
20. If  $\log_{10}(x^2 - 6x + 45) = 2$ , Find the value of  $x$

- a. -5      b. 5      c. 6      d. -6
51. The price of a TV set inclusive of sales tax of 9% is Rs. 13407. Find its market price. (in Rs.)  
a. 12000      b. 12300  
c. 13000      d. 14000
52. Find the single discount equivalent to a series discount of 10%, 20% and 30%.  
a. 49.6%      b. 56.6%  
c. 51.2%      d. 5%
53. If A exceeds B by 40%, B is less than C by 20%, then find A:C.  
a. 28 : 25      b. 25 : 28  
c. 20 : 21      d. 20 : 20
54. If 36 men can do a piece of work in 25 hrs. In how many hours will 15 men do it?  
a. 60      b. 50      c. 40      d. 30
55. A can do a work in 4 days, B in 5 days and C in 10 days, Find the time taken by A, B and C to do the work together.  
a.  $\frac{9}{11}$  days      b.  $1\frac{9}{11}$  days  
c.  $1\frac{7}{8}$  days      d.  $1\frac{9}{7}$  days
56. Two trains 100m and 120m long are running in the same direction with speed of 72 km/hr and 54 km/hr. In how much time will the first train cross the second?  
a. 34 sec      b. 44 sec  
c. 54 sec      d. 64 sec
57. In what ratio must rice at Rs. 9.30 per kg be mixed with rice at Rs. 10.80 per kg so that the mixture be worth Rs. 10 per kg?  
a. 8 : 7      b. 7 : 8  
c. 9 : 10      d. 10 : 9
58. In how many years will a sum of money double itself at  $6\frac{1}{4}\%$  simple interest per annum?  
a. 18 years      b. 16 years  
c. 10 years      d. 12 years
59. A certain sum amounts to Rs 7350 in 2 years and to Rs 8575 in 3 years. Find the rate percent  
a.  $15\frac{2}{3}\%$       b.  $16\frac{2}{3}\%$   
c.  $17\frac{2}{3}\%$       d.  $18\frac{2}{3}\%$
60. The length of a rectangle is increased by 30%. By what percent would the breadth have to be decreased to maintain the same area.  
a. 37.5%      b. 47.5%

Mock Test

- c. 46.7% d. 48%
61. A rectangular grassy plot 110m by 65m has a gravel path 2.5m wide all around it on the inside. Find the cost of gravelling the path at 80 paisa per sq. meter.  
 a. 780 b. 680 c. 480 d. 580
62. In an isosceles triangle, the measure of each of the equal sides is 10cm and the angle between them is  $45^\circ$ . The area of the triangle is  
 a.  $25\text{cm}^2$  b.  $\frac{25}{2}\sqrt{2}\text{cm}^2$   
 c.  $25\sqrt{2}\text{cm}^2$  d.  $25\sqrt{3}\text{cm}^2$
63. Find the number of lead balls, each 1cm diameter that can be made from a sphere of diameter 12cm.  
 a. 1700 b. 1720  
 c. 1726 d. 1728
64. Three spheres of radii 3cm, 4cm and 5cm are melted to form a new sphere. Find the radius of the new sphere.  
 a. 6 b. 7 c. 8 d. 9
65. In a game of 80 points. A can give B 5 pints and C 15 points. How many points B can give C in a game of 60?  
 a. 8 points b. 9 points  
 c. 10 points d. 11 points
66. Find slope of straight line  $3x + 2y = 10$   
 a.  $\frac{2}{3}$  b.  $\frac{3}{2}$  c.  $-\frac{3}{2}$  d. 0
67. Find area of triangle (1, 2), (2, 3) and (3, 4)  
 a. 0 sq. unit b. 1 sq. unit  
 c. 2 sq. unit d. 5 sq. unit
68. If  $m_1$  and  $m_2$  are slope of straight lines represented by  $3x^2 + 4xy + 4y^2 = 0$  then  $m_1 + m_2 =$   
 a. -1 b. 1 c. 3 d.  $\frac{4}{3}$
69. Find angle between pair of lines represented by  $3x^2 + 4xy - 3y^2 = 0$   
 a.  $\frac{\pi}{2}$  b.  $\frac{\pi}{3}$  c.  $\pi$  d. 0
70. Centre of the circle  $x^2 + y^2 + 4x - 6y + 4 = 0$  is  
 a. (2, 3) b. (-2, 3)  
 c. (2, -3) d. (-2, -3)
71.  $(x - 3)^2 + (y - 4)^2 = r^2$  touches x - axis then radius is  
 a. 3 b. 4 c. 5 d. 12
72. Distance between points (0, 0, 1) and (1, 0, 0) is  
 a. 2 units b.  $\sqrt{2}$  units  
 c. 0 units d. 4 units
73. Vertex of parabola  $y^2 = 4ax$  is  
 a. (a, 0) b. (0, b)  
 c. (0, 0) d. (a, 2a)
74.  $\lim_{x \rightarrow 0} \frac{3x^2 + 4x + 1}{4x^2 + 2x + 3} =$   
 a.  $\frac{3}{4}$  b.  $\frac{4}{3}$  c.  $\frac{1}{3}$  d. 2
75.  $\lim_{x \rightarrow 0} \frac{\sqrt[3]{x+1}}{\sqrt[3]{x-1}} =$   
 a.  $\frac{1}{2}$  b.  $-\frac{1}{2}$  c. 0 d. 2
76.  $\frac{d(x^3)}{dx} =$   
 a.  $3x$  b.  $3x^2$  c.  $3x^3$  d.  $\frac{x^4}{4} + c$
77.  $\frac{d(\sqrt{x})}{dx} =$   
 a.  $\sqrt{x}$  b.  $\frac{\sqrt{x}}{2}$  c.  $\frac{x}{2}$  d.  $\frac{1}{2\sqrt{x}}$
78.  $\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2}$   
 a. 0 b. 4 c. 1 d. -1
79. If  $n(A) = 50$ ,  $n(B) = 25$  and  $n(A \cap B) = 25$ , then  
 a. A is subset of B  
 b. B is sub set of A  
 c. (A U B) is null set  
 d. none of these
80.  $1 + 2 + 3 + 4 + \dots + n =$   
 a.  $\frac{n(n+1)}{2}$  b.  $n(n+1)$   
 c.  $n^2$  d. n
81.  $a, ar^2, ar^3$  are in  
 a. G.P b. G.P c. H.P d. A.G.P
82. Find geometric mean between 4 and 16  
 a. 64 b. 8 c. 9 d. 6
83. The probability of prime number if we draw a number between 1 to 10 is  
 a.  $\frac{4}{9}$  b.  $\frac{2}{5}$  c.  $\frac{3}{5}$  d.  $\frac{5}{2}$
84. A dice is thrown twice then probability of getting number whose sum is 9 is  
 a.  $\frac{1}{9}$  b.  $\frac{1}{8}$   
 c.  $\frac{1}{7}$  d. none of these
85. If  $|A| = 0$ , then matrix A is  
 a. singular matrix  
 b. non-singular matrix  
 c. triangular matrix  
 d. zero matrix
86. If order of matrix A is  $2 \times 3$  and that of B is  $3 \times 4$  then order of matrix (AB) is  
 a.  $2 \times 4$  b.  $4 \times 2$

c.  $3 \times 2$ d.  $2 \times 1$ 

87. Rank of Ram from left is 17th and from right is 13th then total number of persons in queue is  
 a. 28      b. 29      c. 40      d. 30

88. If  $A \times B = AB - A^2 + B^2$  then  $2 \times 3 =$   
 a. 11      b. 12      c. 13      d. 14

89. Code for A = 27, B = 28 and C = 29 then M =  
 a. 28      b. 29      c. 27      d. 20

90. Correct order of words  
 a. wood      b. furniture  
 c. country      d. jungle  
 e. tree  
 a. 3, 4, 5, 1, 2      b. 3, 5, 4, 1, 2  
 c. 3, 2, 1, 4, 5      d. 3, 5, 1, 2, 4

### General Knowledge

91. Number of bit used by the IPv6 address  
 a. 32 bit      b. 64 bit  
 c. 128 bit      d. 256 bit

92. Which one is the first web browser invented in 1990  
 a. Internet Explorer      b. Mosaic

- c. Mozilla      d. Nexus  
 93. First Computer virus is known as  
 a. Rabbit      b. Creeper Virus  
 c. Elk Cloner      d. SCA Virus

94. Firewall in Computer is used for  
 a. Security  
 b. Data Transmission  
 c. Authentication  
 d. Monitoring

95. A dual layer Blue-ray Disc can store data upto  
 a. DOS      b. Mac  
 c. C      d. Linux

96. 16.137 When is Constitution Day or Samvidhan Diwas marked?  
 a. 26th Dec      b. 26th Nov  
 c. 26th March      d. 26th Aug

97. When is International Day for the Elimination of Violence Against Women marked?  
 a. 14th Dec      b. 29th March

- c. 25th Nov      d. 7th Aug  
 98. NASA Launched 'DART Mission'. What does R signify in DART?

- a. Refraction      b. Reflection

c. Redirection      d. Reverse

99. Which country test-fired 'Zircon' which is the Hypersonic Cruise Missile?  
 a. Japan      b. South Korea

- c. Russia      d. USA

100. Which city from India topped in IQ Air Air Quality Index?  
 a. Kolkata      b. Mumbai

- c. Delhi      d. Lucknow

**Saral Shikshya**  
**Bachelor of Computer Application (BCA)**  
**ANSWER KEY**

**MOCK TEST - I****GRAMMAR**

1. a	2. c	3. c	4. b	5. c	6. d	7. b	8. b	9. a	10. d
11. c	12. a	13. b	14. a	15. a	16. c	17. d	18. d	19. c	20. c
21. b	22. b	23. d	24. d	25. a	26. c	27. a	28. c	29. b	30. c
31. d	32. a	33. b	34. c	35. a	36. b	37. a	38. b	39. b	40. c

**Mathematics**

41. a	42. b	43. b	44. a	45. c	46. b	47. a	48. d	49. b	50. c
51. a	52. a	53. d	54. a	55. b	56. b	57. a	58. c	59. b	60. b
61. d	62. a	63.	64. a	65. a	66. c	67. b	68. a	69. a	70. a
71. a	72. b	73. a	74. a	75. c	76. a	77. a	78. b	79. b	80. a
81. a	82.	83. b	84. c	85. a	86. d	87. d	88. d	89. c	90. b

**General Knowledge**

91. b	92. d	93. c	94. c	95. d	96. d	97.	98. d	99. c	100.b
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**Mock Test - II****GRAMMAR**

1. c	2. c	3. c	4. a	5. a	6. c	7. b	8. b	9. a	10. b
11. a	12. a	13. c	14. d	15. c	16. c	17. a	18. d	19. a	20. d
21. b	22. a	23. d	24. c	25. a	26. b	27. d	28. b	29. c	30. c
31. c	32. c	33. c	34. d	35. c	36. c	37. d	38. b	39. c	40. b

**Mathematics**

41. a	42. b	43. b	44. a	45. a	46. c	47. b	48. a	49. b	50. a
51. a	52. b	53. a	54. b	55. b	56. a	57. a	58. c	59. c	60. c
61. b	62. c	63. b	64. a	65. c	66. d	67. b	68. a	69. b	70. c
71. d	72. a	73. a	74. c	75. a	76. b	77. a	78. d	79. a	80. b
81. a	82. b	83. a	84. b	85. c	86. c	87. d	88. d	89. c	90. c

**General Knowledge**

91. b	92. a	93. b	94. b	95. c	96. c	97. a	98. a	99. a	100.b
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**MOCK TEST - III****GRAMMAR**

1. c	2. b	3. b	4. d	5. d	6. d	7. a	8. c	9. c	10. a
11. c	12. d	13. d	14. a	15. b	16. b	17. d	18. c	19. d	20. b
21. c	22. b	23. b	24. b	25. a	26. b	27. a	28. d	29. a	30. b
31. a	32. a	33. c	34. c	35. a	36. b	37. d	38. c	39. a	40. c

**Mathematics**

41. b	42. d	43. a	44. a	45. c	46. c	47. a	48. d	49. a	50. c
51. c	52. a	53. a	54. d	55. b	56. c	57. a	58. a	59. b	60. a
61. b	62. a	63. a	64. a	65. b	66. a	67. a	68. a	69. b	70. a
71. d	72. d	73. b	74. c	75. c	76. a	77. b	78. b	79. d	80. b
81. b	82. a	83. b	84. a	85. b	86. a	87. c	88. b	89. a	90. a

**General Knowledge**

91. b	92. b	93. b	94. c	95. b	96. d	97. a	98. c	99. d	100.a
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