Reg. No. :

Question Paper Code: S4400A

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Fourth Semester

Civil Engineering

14UGS431 - QUALITATIVE AND QUANTITATIVE APTITUDE

(Common to ALL branches)

(Regulation 2014)

Duration: Three hours   Maximum: 100 Marks

Answer Any 50 Questions

PART A - (50 x 2 = 100 Marks)

1. What is the difference between the place values of 2 in the numeral 7229?

    (a) 20   (b) 200   (c) 180   (d) 18

2. How many numbers from 22 to 90 are exactly divisible by 11?

    (a) 6   (b) 7   (c) 8   (d) 9

3. Find the Number of factors of 100

    (a) 9   (b) 2   (c) 4   (d) 10

4. The L.C.M. of two numbers is 48. The numbers are in the ratio 2 : 3. Then sum of the number is:

    (a) 30   (b) 40   (c) 38   (d) 36

5. Find the unit digit of the expression $216^{789} + 991^{254} + 632^{161}$?

    (a) 5   (b) 0   (c) 9   (d) 7

6. How many digits are used to number a book containing 300 pages.

    (a) 694   (b) 792   (c) 698   (d) 784
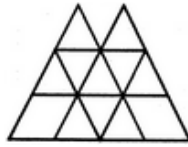
7. Three number are in the ratio 1 : 2 : 3 and their HCF is 12. The numbers are

    (a) 4, 8, 12   (b) 5, 10, 15   (c) 10, 20, 30   (d) 12, 24, 36

8. If the average of seven numbers is 35. If one is included. The average becomes 40. The included number is

    (a) 70   (b) 75   (c) 65   (d) 80

9. The HCF of two prime numbers is

    (a) Their product   (b) their sum   (c) one   (d) zero

10. Number decreased by 20% gives 480. The number is

    (a) 500   (b) 600   (c) 550   (d) None of these

11. The sum of first 12 odd numbers is

    (a) 78   (b) 144   (c) 156   (d) None of these

12. If A is 25% greater than B then how much percentage is B smaller than A?

    (a) 20%   (b) 25%   (c) 28%   (d) 21%

13. Find the number of 3 digit numbers, which are divisible by 9

    (a) 99   (b) 100   (c) 101   (d) 98

14. A year ago, the father was 8 times as old as his son. Now his age is the square of his son's age. Find their present ages?

    (a) 7 years, 49 years   (b) 8 years, 64 years
    (c) 6 years, 36 years   (d) 5 years, 25 years

15. Find the average of first ten multiples of 3?

    (a) 13   (b) 15   (c) 18   (d) 16.5

16. By selling a book for 270, 20% profit was earned. What is the cost price of the book?

    (a) 216   (b) 226   (c) 254   (d) 225

17. A class consists of 36 girls and 44 boys. If the average weight of the girls is 40 kg and that of boys is 35 kg, find the average weight of all students in the class?

    (a) 37.25 kg (b) 37.5 kg (c) 37 kg (d) 37.75 kg

2

18. A man bought a second-hand typewriter for Rs.1200 and spent Rs.200 on its repairs. He sold it for Rs.1680. His profit per cent is

    (a) 20%   (b) 10%   (c) 8%   (d) 16%

19. The average of the first 5 prime number is

    (a) 3.6   (b) 5.6   (c) 5.4   (d) 7

20. A can do a work in 24 days and B can do it in 8 days. In how many days A and B can do the work?

    (a) 20 days   (b) 10 days   (c) 6 days   (d) 8 days

21. 40% of $x = 120$, find the value of x?

    (a) 300   (b) 200   (c) 600   (d) 240

22. If a:b=1:2,b:c=3:4 and c:d=2:3 find a:b:c:d?

    (a) 3:6:8:24   (b) 6:12:16:24   (c) 6:18:24:16   (d) 3:6:2:3

23. In a cricket match, Rahul scored a century with 13 boundaries and 3 sixes. What percentage of his runs did he make by running between the wickets?

    (a) 70%   (b) 50%   (c) 35%   (d) 30%

24. If a dozen mirrors are fallen down. The ratio between broken and unbroken mirrors is

    (a) 2 : 3   (b) 3 : 4   (c) 5 : 7   (d) 5 : 4

25. 40% of a number is 80. What is 30% of one – fourth of the number?

    (a) 60   (b) 30   (c) 15   (d) 10

26. A man starts at 3 pm with the speed of 50 Kmph. Another man follows him at 4 pm with the speed of 75 Kmph. When will they meet?

    (a) 5 pm   (b) 6 pm   (c) 7 pm   (d) 6.30 pm

27. The ages of Vikas and Nikash are in the ratio of 5 : 3. If Vikas is 8 year elder than Nikash, find the age of Nikash?

    (a) 10   (b) 12   (c) 15   (d) 20

28. A can do a work in 24 days and B can do it in 8 days. In how many days A and B can do the work?

    (a) 20 days   (b) 10 days   (c) 6 days   (d) 8 days

S4400A

29. The present age of Ram and Raj differ by 7. Five years back, Raj was twice the age of Ram. Find the age of Ram after 4 years.

    (a) 16   (b) 20   (c) 21   (d) 25

30. If 3 persons can do 3 times of a particular work in 3 days, then, 7 persons can do 7 times of that work in

    (a) 7 days   (b) 6 days   (c) 4 days   (d) 3 days

31. The cost price of 6 pens is equal to the selling price of 4 pens. Find the profit percent

    (a) 25%   (b) 60%   (c) 50%   (d) 80%

32. A pipe can fill a tank in 3 hours. Because of leak in the bottom, it is filled in 4 hours. If the tank is full, how much time will the leak take to empty it?

    (a) 10 hours   (b) 11 hours   (c) 12 hours   (d) 9 hours

33. By selling an article for Rs. 384, a trader gains 20%. Find the cost price of article.

    (a) 160   (b) 240   (c) 320   (d) 480

34. How many four digit numbers can be formed using the digits {1, 3, 4, 5, 7, 9} (Repetition of digits is not allowed)?

    (a) 360   (b) 300   (c) 60   (d) 180

35. The Difference between C.I and S.I on a sum of Rs. 10000 for two years at a rate of 5% interest is

    (a) Rs. 25   (b) Rs. 20   (c) Rs. 10   (d) Rs. 5

36. At what rate of compound interest will a sum of Rs. 8000 amount to Rs. 8820 in two years?

    (a) 8%   (b) 10%   (c) 6%   (d) 5%

37. When the time in the clock is 7.20, then the angle between the hands of the clock is

    (a) 100 degrees   (b) 120 degrees   (c) 90 degrees   (d) 110 degrees

38. How long does it take for a sum of Rs. 2500 to become Rs. 12500 at 10% simple interest?

    (a) 40 years   (b) 50 years   (c) 25 years   (d) 49 years

39. What was the day of the week on 17th June, 1998?

    (a) Tuesday   (b) Monday   (c) Sunday   (d) Wednesday

S4400A

40. If $x : y = 5 : 8$ and $y : z = 4 : 7$ then find $x : z$

    (a) 32 : 35   (b) 67 : 56   (c) 5 : 14   (d) 5 : 7

41. Find the number of triangles in the given figure.

    (a) 16   (b) 18   (c) 12   (d) 17

42. Arjun walked 30 m towards East, took a right turn and walked 40 m .Then he took a left turn and walked 30 m .In which direction is he now from the starting point?

    (a) South-East   (b) South   (c) North-East   (d) East

43. A person crosses a 600 m long street in 5 minutes. What is his speed in km/hr?

    (a) 3.6   (b) 7.2   (c) 8.4   (d) 10

44. A man walking at the rate of 5 km/hr crosses a bridge in 15 minutes. The length of the bridge (in meters) is:

    (a) 600   (b) 750   (c) 1000   (d) 1250

45. In a certain code is, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code?

    (a) 318826   (b) 318286   (c) 618826   (d) 338816

46. If 6 men take 9 days to complete a work, how many men can complete the work in 3 days?

    (a) 2 men   (b) 12 men   (c) 9 men   (d) 18 men

47. According to a military code, SYSTEM is SYSMET and NEARER is AENRER. What is the code for FRACTION?

    (a) CARFTINO   (b) FRACNOIT   (c) CARFTION   (d) CARFNOIT

48. Two pipes A and B can fill a tank in 20 minutes when opened simultaneously. If pipe A alone takes 60 minutes to fill the tank, how much time will pipe B alone take to fill the tank?

    (a) 60 min   (b) 40 min   (c) 30 min   (d) 20 min

49. Three pipes can fill a tank in 6, 10 and 15 hours respectively. If they are opened together, how long does it take to fill the tank?

    (a) 3 hours   (b) 30 hours   (c) 10 hours   (d) 3.33 hours

50. Pork : Pig :: Beef : ?

    (a) Farmer   (b) Herd   (c) Cow   (d) Lamb

51. In how many ways can the word APTITUDE be arranged such that the vowels always come together?

    (a) 8!   (b) 1440   (c) 576   (d) 120

52. There are 10 yes or no questions. In how many ways can these be answered?

    (a) 1024   (b) 256   (c) 100   (d) 20

53. How many 4's are there proceeded by 7 but not followed by 3?

5 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5 8 2 0 1 8 7 4 6 3

    (a) Three   (b) Four   (c) Five   (d) Six

54. How many times in a day, are the hands of a clock in straight line but opposite in direction?

    (a) 48   (b) 22   (c) 24   (d) 12

55. Find the next number in the sequence 1, 4, 10, 22, 46, __?

    (a) 64   (b) 86   (c) 94   (d) 122

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

    (a) 2000   (b) 700   (c) 800   (d) 1200

57. Find the missing letters a, d, c, f, ?, h, g, ?, i

    (a) e, j   (b) e, k   (c) f, j   (d) j, e

58. Grish walked 15 *m* North – West, then turned South and walked another 12 *m*. How far was he from the starting point?

    (a) 9 *m*   (b) 3 *m*   (c) 18 *m*   (d) 27 *m*

S4400A

59. A is 100 *m* North east of *B. C* is 100 *m* South west of *B*. Then, C is in which direction of *A*?

    (a) 200 *m* South West   (b) 200 *m* North West

    (c) 100 *m* West   (d) 100 *m* North

60. If *P* + *Q* means *P* is the sister of *Q*; *P* − *Q* means P is the brother of *Q*;
P * *Q* means *P* is the daughter *Q*: If *A* − *B* − *C* + *D* * E, how is *E* related to *A*?

    (a) Aunt   (b) Sister   (c) Daughter   (d) Mother

61. If *P* is the brother of *Q, Q* is the sister of *R*, and *R* is the father of *S*, how is *P* related to *S*?

    (a) Father   (b) Maternal Uncle   (c) Paternal Grandpa   (d) Paternal Uncle

62. *A, B, C, D, E* and *F* are sitting in a row. *D* and *E* are in the center. *A* and *B* are at the ends. *C* is sitting to the left of *A*. *E* is to the right of *D*. Who is to the right of *B*?

    (a) D   (b) E   (c) F   (d) C

63. In a row of 25 boys, Mithun is twelfth from the left and Nitin is eighth from the right. How many boys are between them?

    (a) 4   (b) 7   (c) 6   (d) 5

64. Tree : Forest :: Grass : ?

    (a) Lawn   (b) Field   (c) Garden   (d) Farm

65. 49 : 81 :: 100 : ?

    (a) 64   (b) 144   (c) 169   (d) None of these

66. Find the odd man out 81:243, 16:64, 64:192, 25:75

    (a) 81:243   (b) 16:64   (c) 64:192   (d) 25:75

67. If the following series is written in the reverse order, which number will be fourth to the right of the seventh number from the left?
    7, 3, 9, 7, 0, 3, 8, 4, 6, 2, 1, 0, 5, 11, 13

    (a) 0   (b) 5   (c) 9   (d) 11

68. Find the next number in the sequence 10, 14, 26, 42, 70,?

    (a) 100   (b) 102   (c) 106   (d) 114

69. Find the next number in the sequence 4, 12, 36, 108, ?

    (a) 144   (b) 216   (c) 304   (d) 324

70. Arrange the given words in a meaningful sequence

    1. Frog   2. Eagle   3. Grasshopper   4. Snake   5. Grass

    (a) 5, 3, 4, 2, 1   (b) 5, 3, 1, 4, 2   (c) 3, 4, 2, 5, 1   (d) 1, 3, 5, 2, 4

71. If ZEBRA can be written as 2652181, how can COBRA be written?

    (a) 302181   (b) 3152181   (c) 31822151   (d) 1182153

72. In a certain code, DESK is written as #$52, RIDE is written as %7#$. How is RISK written in that code?

    (a) %725   (b) %752   (c) %7#2   (d) %7$#

73. In a certain code language, '123' means 'hot filtered coffee'. '356' means 'very hot day' and '589' means 'day and night'. Which digit stands for 'very'?

    (a) 5   (b) 6   (c) 8   (d) 9

74. Choose the alternative which is closely resembles the mirror image of the given combination.

    FIXING
    (1) GNIXIF   (2) ꟻIXIИG
    (3) ӘИIXIꟼ   (4) ӘИIXIꟻ

    (a) 1   (b) 2   (c) 3   (d) 4

75. Arrange the given words in a meaningful sequence:

    1. Curd   2. Grass   3. Butter   4. Milk   5. Cow

    (a) 5, 2, 4, 1, 3   (b) 5, 2, 3, 4, 1   (c) 4, 2, 5, 3, 1   (d) 2, 5, 4, 3, 1

—————————————