Reg. No. : ☐☐☐☐☐☐☐☐☐☐

Question Paper Code: 41408

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

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 highest common factor of 36 and 84

    (a) 4   (b) 6   (c) 12   (d) 18

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. What is the value of (x-a)(x-b)(x-c) - - - - - (x-z)

    (a) 1   (b) 2   (c) 3   (d) 0

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

    (a) 694   (b) 792   (c) 698   (d) 784

7. $7777 + 777 + 77 + 7 = ?$

    (a) 8316   (b) 8459   (c) 8638   (d) 8724

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. A man's average daily expenditure is Rs.12 during March, Rs.14 during April and Rs. 17 during May. Find the Average daily expenditure for the three months?

    (a) 13.35   (b) 14.22   (c) 14.33   (d) 13.33

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

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

11. If P% of P is 36, then P is equal to

    (a) 15   (b) 60   (c) 600   (d) 3600

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. The ages of two friends is in the ratio 6:5. The sum of their ages is 66.After how many years will the ages be in the ratio 8:7?

    (a) 13   (b) 19   (c) 12   (d) None of these

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. If the digits of my present age are reversed then I get the age of my son. If 1 year ago my age was twice as that of my son. Find my present age?

    (a) 42   (b) 62   (c) 50   (d) 73

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. The price of two tables and three chairs is Rs.5600. What will be the price of six tables and nine chairs?

    (a) Rs.16800   (b) Rs.11200   (c) Rs.22400   (d) None of these
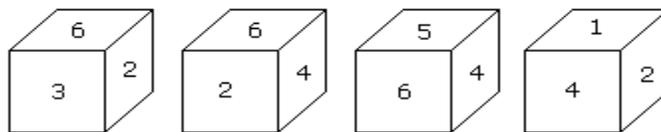
18. A man bought a second-hand typewriter for Rs.1200 and spent Rs.200 on its repairs. He sold it for Rs.1680. His profit per cent is

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

19. Find the principle, interest on Rs.900/- at 6% p.a. for 3 years?

    (a) Rs.5000   (b) Rs.4500   (c) Rs.3500   (d) Rs.2200

20. Every year an amount increases by $1/8^{th}$ of itself. How much will it be after two years if its present value Rs.64000?

    (a) Rs. 64000   (b) Rs. 75000   (c) Rs. 81000   (d) Rs. 80000

21. A sum of money becomes Rs. 2200 after three years and Rs. 4400 after six years on compound interest. The sum is

    (a) Rs. 1400   (b) Rs. 1100   (c) Rs. 1000   (d) Rs.1200

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. The ratio of three numbers is 5:3:4 and their sum is 108. The second number of the three numbers is?

    (a) 12   (b) 15   (c) 27   (d) 29

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. A man walking at a speed of 6 km per hour. After every km he takes rest for 6 minutes. How much time will he take to cover a distance of 12 km?

    (a) 3 hours   (b) 5 hours 42 min   (c) 4 hours 10 min   (d) 3 hours 6 min

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. An athlete runs 200m race in 24 seconds. What is his speed?

    (a) 20 km/hr   (b) 25 km/hr   (c) 27.5 km/hr   (d) 30 km/hr

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

3

29. 10 men can prepare 20 toys in 12 days working 15 hours a day. Then in how many days can 24 men prepare 32 toys working 20 hours a day?

    (a) 6 days   (b) 10 days   (c) 20 days   (d) 25 days

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. A cistern can be filled by pipes A and B in 12 minutes and 10 minutes respectively. The full tank can be emptied by a third pipe C in 8 minutes only .If all the pipes be turned on at the same time, the cistern will be full in took a right turn and walked 40 metres. How far is he from the starting point?

    (a) 17 min   (b) 17 1/7 min   (c) 17 2/7 min   (d) 18 min

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. The number of new words that can be formed by rearranging the letters of the word 'ALIVE' is

    (a) 23   (b) 24   (c) 119   (d) 120

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. Find $^7P_7$

    (a) 4440   (b) 5040   (c) 1   (d) 0

36. How many times are the hands of a clock coincide in a day?

    (a) 44   (b) 48   (c) 24   (d) 22

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. On 8th February 2005, it was Tuesday. What was the day of the week on 8th February 2004?

    (a) Tuesday   (b) Monday   (c) Sunday   (d) Wednesday
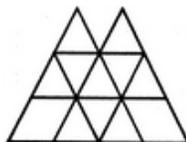
39. What was the day of the week on 17th June, 1998?

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

40. Which number is on the face opposite to 5?

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

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. Lakshman went 15 kms to the West of his house, then turned left and walked 20 kms. He then turned East and walked 25 kms and finally turning left covered 20 kms. How far was he from his house?

    (a) 5 kms   (b) 10 kms   (c) 40 kms   (d) 80 kms

Directions (44 to 48): Read the following information carefully and answer the questions given below:
- In a family, there are six members P, Q, R, S, T and U.
- P and Q are married couple, P is the wife.
- S is the only daughter of R who is the sister of P.
- T is brother of S.
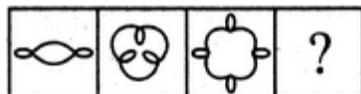- Q is son- in- law of U, whose wife is has died

44. How is U related to P?

    (a) Mother   (b) Father   (c) Sister   (d) Son

45. How is T related to R?

    (a) Son   (b) Cousin   (c) Daughter   (d) Sister
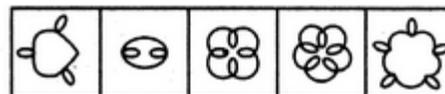
46. How is R related to Q?

    (a) Daughter-in-Law   (b) Sister

    (c) Sister-in-Law   (d) Aunt

47. How many male members are there in the family?

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

48. How is P related to T?

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

49. 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

50. If white is called blue, blue is called red, red is called yellow, yellow is called green, green is called Black, black is called violet and violet is called orange, what would be the colour of human blood?

    (a) Red   (b) Green   (c) Yellow   (d) Violet

51. 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

52. If 'nso ptr kli chn' stands for 'Sharma gets marriage gift'. 'ptr lnm wop chn' stands for 'wife gives marriage gift', 'tti wop nhi' stands for 'he gives nothing' what would mean 'gives'?

    (a) chn   (b) nhi   (c) ptr   (d) wop

53. Selecting a suitable figure from the Answer Set that would replace the question mark (?) in Figure (D).

      Problem Figures: **Answer Figures:**

      (A)   **(B)**   **(C)**   **(D)**   **(1)**   **(2)**   **(3)**   **(4)**   **(5)**

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

54. Pork : Pig :: Beef : ?

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

55. 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

Directions (56 to 60): Read the following information carefully and answer the questions given below:
- Seven students, A, B, C, D, E, F and G are sitting in the first row of the class facing the teacher.
- B is third to left of C who is third to right end.
- G is second to right of D.
- F and D are at two ends.
- A is second to left of E and second to right of B

56. Who is sitting in the middle of the row?

    (a) A   (b) B   (c) C   (d) G

57. Which of the following group is sitting to the right of G?

    (a) DBAC   (b) BACE   (c) ACEF   (d) ACFE

58. Who among the following is seated between A and E?

    (a) B   (b) C   (c) G   (d) F

59. What is the position of G?

    (a) Between B and A   (b) At the right end
    (c) At the left end   (d) Third to right of C

60. What are the neighbors E?

    (a) CA   (b) AF   (c) GA   (d) CF

61. 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

62. How many 8s are there in the following number series each of which is exactly divisible by its immediately preceding and also divisible by immediately succeeding numbers?

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

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

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

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

64. Find the missing number in the sequence 3, 7, 15, ? , 63, 127

    (a) 30   (b) 31   (c) 47   (d) 52

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

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

66. Find the odd man out AZ, GT, MN, SH, XB

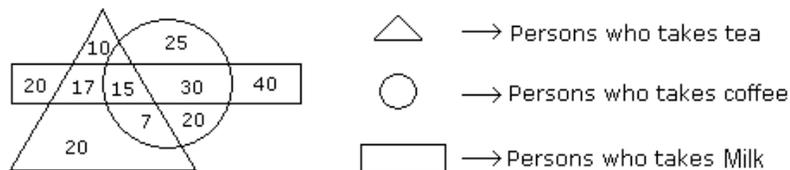   (a) GT   (b) MN   (c) SH   (d) XB

67. 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

68. Mohini went to the movies nine days ago. She goes to the movies only on Thursday. What day of the week is today?

    (a) Thursday   (b) Saturday   (c) Sunday   (d) Tuesday

Directions (69 to 73): Study the diagram given below and answer each of the following questions:

△ ⟶ Persons who takes tea
○ ⟶ Persons who takes coffee
▭ ⟶ Persons who takes Milk

69. How many persons who take Coffee and Milk but not tea?

    (a) 30   (b) 15   (c) 75   (d) 40

70. How many persons are there who take both tea and coffee but not Milk?

    (a) 7   (b) 25   (c) 10   (d) 15

71. How many persons take Tea?

    (a) 97   (b) 69   (c) 122   (d) 62

72. How many persons are there who takes only Milk?

    (a) 122   (b) 40   (c) 60   (d) 30

73. How many persons take all the three?

    (a) 17   (b) 15   (c) 30   (d) 7

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

SUPERVISOR
(1) ЯOƧIVЯƎ9UƧ   (2) ƧUbEᴙVIƧOᴙ
(3) ᴙƧOᴎbƧEᴙIV   (4) ƧUbEᴙVIOƧᴙ

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

75. Choose the alternative which is closely resembles the water image of the given combination.

(X)   (1)   (2)   (3)   (4)

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

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