## JAGRAN




## Quantitative Aptitude

1. $50 \%$ of $\mathbf{9 0}-50 \%$ of $\mathbf{1 5 \%}=\mathbf{1 5 7 8 - ?}$
(A) 1522.925
(B) 1622.725
(C) 1533.075
(D) 1649.925
(E) None
2. $412 \div 4+206=298+\sqrt{ } 2$
(A) 144
(B) 121
(C) 134
(D) 169
(E) NOT
3. $8 \frac{1}{8}+2 \frac{1}{4}-7 \frac{2}{3}+13 \frac{5}{12}=$ ?
(A) $16 \frac{5}{24}$
(B) $8 \frac{1}{12}$
(C) $9 \frac{5}{12}$
(D) $11 \frac{7}{12}$
(E) NOT
4. $5886+77-7019+1187=219+$ ?
(A) 79
(B) 197
(C) 179
(D) 47
(E) NOT
5. $\frac{6}{5}+0.349+15 \%$ of $18=$ ?
(A) 4.349
(B) 4.249
(C) 4.149
(D) 3.249
(E) NOT
6. 15 : 66 :: 185 : ?
(A) 824
(B) 644
(C) 604
(D) 814
(E) None of these
7. $64^{12} \div 4^{15}=64^{?}$
(A) 9
(B) 3
(C) 12
(D) 7
(E) None of these
8. $14 \%$ of $\mathbf{8 0 \%}+\mathbf{? \%}$ of $90=31.9$
(A) 16
(B) 23
(C) 18
(D) 26
(E) None of these
9. $\sqrt{ } \mathbf{9 7 3 4 4}=$ ?
(A) 312
(B) 322
(C) 292
(D) 342
(E) None of these
10. $3 \frac{6}{7}-6 \frac{1}{4}+5 \frac{1}{3}=$ ?
(A) $1 \frac{65}{84}$
(B) $8 \frac{1}{84}$
(C) $2 \frac{79}{84}$
(D) $5 \frac{47}{84}$
(E) None of these

Direction- (Q. 11-15) what should come in place of the question-mark (?) in the following number series?
11. 15, 18, 16, 19, 17, 20,?
(A) 23
(B) 22
(C) 16
(D) 18
(E) None of these
12. 1050, 420, 168, 67.2, 26.88, 10.752,?
(A) 4.3008
(B) 6.5038
(C) 4.4015
(D) 5.6002
(E) None of these
13. $0,6,24,60,120,210, ?$
(A) 343
(B) 280
(C) 336
(D) 295
(E) None of these
14. 32, 49, 83, 151, 287, 559,?
(A) 1118
(B) 979
(C) 1103
(D) 1120
(E) None of these
15. $462,552,650,756,870,992, ?$
(A) 1040
(B) 1122
(C) 1132
(D) 1050
(E) None of these

Direction- (Q. 16-20) what approximate value should come in place of the question-mark (?) in the following questions?
(Note: You are not expected to calculate the exact value.)
16. $\mathbf{5 5 5 4 . 9 9 9} \div \mathbf{5 0 . 0 0 7}=$ ?
(A) 110
(B) 150
(C) 200
(D) 50
(E) 125
17. $(18.001)^{3}=$ ?
(A) 5830
(B) 5500
(C) 6000
(D) 6480
(E) 5240
18. $23.001 \times 18.999 \times 7.998=$ ?
(A) 4200
(B) 3000
(C) 3500
(D) 4000
(E) 2500
19. $9999 \div 99 \div 9=$ ?
(A) 18
(B) 15
(C) 6
(D) 11
(E) 20
20. $\mathbf{2 2 . 0 0 5 \%}$ of (A) $449.999=$ ?
(A) 85
(B) 100
(C) 125
(D) 75
(E) 150
21. A sum of rs. 731 is divided among $A, B$ and $C$, such that ' $A$ ' receives $\mathbf{2 5 \%}$ more than ' $B$ ' and ' $B$ ' receives $\mathbf{2 5 \%}$ less than ' $C$ ' What is $C$ 's share in the amount?
(A) Rs. 272
(B) Rs. 200
(C) Rs. 262
(D) Rs. 258
(E) None of these
22. In how many different ways can the letters of the word 'PRAISE' be arranged?
(A) 720
(B) 610
(C) 360
(D) 210
(E) None of these
23. If the numerator of a fraction is increased by $150 \%$ and the denominator of the fraction is increased by $\mathbf{3 0 0 \%}$, the resultant fraction is $\frac{5}{18}$ What is the original fraction?
(A) $\frac{4}{9}$
(B) $\frac{4}{5}$
(C) $\frac{8}{9}$
(D) $\frac{8}{11}$
(E) None of these
24. A car covers the first 39 km of its journey in 45 minutes and covers the remaining $\mathbf{2 5}$ $\mathbf{k m}$ in 35 minutes. What is the average speed of the car?
(A) $40 \mathrm{~km} / \mathrm{hr}$.
(B) $64 \mathrm{~km} / \mathrm{hr}$.
(C) $49 \mathrm{~km} / \mathrm{hr}$.
(D) $48 \mathrm{~km} / \mathrm{hr}$.
(E) None of these
25. Four examiners can examine a certain number of answer papers in 10 days by working for 5 hours a day. For how many hours a day. For how many hours in a day would 2 examiners have to work in order to examine twice the numbers of answer papers in 20days?
(A) 8hours
(B) $7 \frac{1}{2}$ hours
(C) 10 hours
(D) $8 \frac{1}{2}$ hours
(E) None of these

Direction-(Q. 26-30) In each of these questions, two equations, two equations are given.
You have to solve these equations and find out the values of $\mathbf{x}$ and $\mathbf{y}$ and give answer-
(A) If $x<y$
(B) If $x>y$
(C) If $x \leq y$
(D) If $x \geq y$
(E) If $\mathbf{x}=\mathbf{y}$
26. I. $16 x^{2}+20 x+6=0$
II. $10 y^{2}+38 y+24=0$
27. I. $18 x^{2}+18 x+14=0$
II. $12 y^{2}+29 y+14=0$
28. I. $8 x^{2}+6 x=5$
II. $12 y^{2}-22 y+8=0$
29. I. $17 x^{2}+48 x=9$
II. $13 y^{2}=32 y-12$
30. I. $4 x+7 y=209$
II. $12 x-14 y=-38$

Directions-(Q. 31-35) Study the pie-chart carefully to answer the following questions.
Percentage of students enrolled in different activities in a school
$\mathbf{N}=3000$


Percentage break-up of girls enrolled in these activities out of the total students

31. What is the approximate percentage of boys in the school?
(A) 34
(B) 56
(C) 28
(D) 50
(E) 42
32. How many boys are enrolled in Singing and craft together?
(A) 505
(B) 610
(C) 485
(D) 420
(E) None of these
33. What is the total numbers of girls enrolled in Swimming and Drawing together?
(A) 480
(B) 525
(C) 505
(D) 495
(E) None of these
34. Numbers of girls enrolled in Dancing from what percent of total number of students in the school?
(Rounded off to two digits after decimal)
(A) 12.35
(B) 14.12
(C) 11.67
(D) 10.08
(E) None of these
35. What is the respective ratio of number of girls enrolled in Swimming to the number of boys enrolled in Swimming?
(A) $47: 49$
(B) $23: 29$
(C) $29: 23$
(D) $49: 47$
(E) None of these

Directions-(Q. 86-90) Study the following graph carefully and answer the questions given below it.

Total number of students appeared and qualified from various schools at a Scholarship Exam.

36. The average number of students qualified at the examination from schools $C$ and $D$ are what percent of the average number of students appeared for the examination from the same school?
(Rounded off to two digits after decimal)
(A) 58.62
(B) 73.91
(C) 62.58
(D) 58.96
(E) None of these
37. What is the respective ratio of the number of students appeared to the number of students qualified at the Scholarship exam from School C?
(A) 7:12
(B) $6: 5$
(C) 9:13
(D) $9: 10$
(E) None of these
38. What is the respective ratio of the number of students qualified at the Scholarship examination from school $A$ and the number of students qualified at the examination from school B?
(A) $8: 3$
(B) 5:7
(C) 7:3
(D) $9: 5$
(E) None of these
39. The number of students appeared for the Scholarship exam from School $D$ are approximately what percent of the total number of students appeared for the exam from all the schools together?
(A) 12
(B) 24
(C) 29
(D) 18
(E) 8
40. What is the difference between the average number of students appeared in the Scholarship exam from all the given schools and the average number of students qualified from all the given schools?
(A) 950
(B) 1100
(C) 990
(D) 1020
(E) None of these
41. The deference between the amount of compound interest and simple interest accured on an amount of Rs. 26,000 at the end of $\mathbf{3}$ years is Rs. 2994.134. What is the rate of interest p.c.p.a. ?
(A) 22
(B) 17
(C) 19
(D) Cannot be determined
(E) None of these
42. On a shelf there are 4 book on Economics, 3 books on Management and 4 books on Statistics. In how many different ways can the books be arranged so that the books on Economics are kept together?
(A) 967680
(B) 120960
(C) 5040
(D) 40320
(E) None of these
43. 6 women and 6 men together can complete a piece of work in 6 days. In how many days can 15 men alone complete the piece of work if 9 women alone can complete the work in 10 days?
(A) 6
(B) 5
(C) 7.2
(D) Cannot be determined
(E) None of these
44. Ravi borrowed some money at the rate of 4 p.c.p.a. for the first three years, at the rate of 8 p.c.p.a. for the next two years and at the rate of 9 p.c.p.a. for the period beyond 5 years. If he pays a total simple interest of Rs. 19,550 at the end of 7 years, how much money did he borrow?
(A) Rs. 39,500
(B) Rs. 42,500
(C) Rs. 41,900
(D) Rs. 43,000
(E) None of these
45. What is the area of a circle whose radius is equal to the side of a square whose perimeter is $\mathbf{1 1 2}$ meters?
(A) 176 sq m
(B) 2504 sq m
(C) 284 sq m
(D) 1956 sq m
(E) None of these

Directions-(Q. 96-100) study the following table carefully to answer the questions that follow-

| Number of Students Studying <br> in Six <br> Different Colleges over <br> the years |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | College |  |  |  |  |  |
|  | P | Q | R | S | T | U |
| 2004 | 2500 | 2250 | 2450 | 2150 | 2020 | 2300 |
| 2005 | 2040 | 2300 | 2400 | 2200 | 2090 | 2120 |
| 2006 | 210 | 2150 | 2330 | 2250 | 2180 | 2260 |
| 2007 | 2280 | 2600 | 2260 | 2340 | 2250 | 2490 |
| 2008 | 2540 | 2540 | 2120 | 2380 | 2310 | 2520 |
| 2009 | 2320 | 2440 | 2500 | 2480 | 2400 | 2440 |

46. What is the total number of students from all the Colleges together in the year 2005?
(A) 10350
(B) 13150
(C) 15310
(D) 11350
(E) None of these
47. What is the percent increase in the number of students in College $T$ in the year 2007 from the previous year?
(Rounded off to two digits after decimal)
(A) 8.33
(B) 5.18
(C) 6.63
(D) 3.21
(E) None of these
48. Number of students in College $P$ in the year 2008 forms approximately what percent of the total number of students in that College from all the years together?
(A) 11
(B) 31
(C) 18
(D) 26
(E) 23
49. What is the respective ratio of total number of students in College $S$ in the years 2006 and 2009 together to the total number of students in College $\mathbf{U}$ from the same years?
(A) 473:4703
(B) 470:473
(C) $371: 390$
(D) $390: 371$
(E) None of these
50. What is the average number of students in all the Colleges together in the year 2004?
(Rounded off to the nearest integer)
(A) 2208
(B) 2196
(C) 2144
(D) 2324
(E) 2278

## ANSWER

| 1 | C |
| :---: | :---: |
| 2 | B |
| 3 | A |
| 4 | E |
| 5 | B |
| 6 | D |
| 7 | D |
| 8 | B |
| 9 | A |
| 10 | C |
| 11 | D |
| 12 | A |
| 13 | C |
| 14 | C |
| 15 | B |
| 16 | A |
| 17 | A |
| 18 | C |
| 19 | D |
| 20 | B |
| 21 | A |
| 22 | A |
| 23 | A |
| 24 | D |
| 25 | C |


| 26 | B |
| :---: | :---: |
| 27 | D |
| 28 | C |
| 29 | A |
| 30 | E |
| 31 | E |
| 32 | A |
| 33 | B |
| 34 | C |
| 35 | D |
| 36 | B |
| 37 | E |
| 38 | E |
| 39 | D |
| 40 | A |
| 41 | C |
| 42 | A |
| 43 | E |
| 44 | B |
| 45 | E |
| 46 | B |
| 47 | D |
| 48 | C |
| 49 | A |
| 50 | E |

