Quantitative Aptitude

1. If a pipe A fills a tank in 10 hours and a pipe B fills it in 15 hours, then the tank will be filled by A and B together in how much time?
   A. 10 hrs. B. 9 hrs C. 6 hrs D. 8 hrs
2. Two pipes P & Q can separately fill a cistern in 12 minutes and 18 minutes respectively. In how many minutes can both the pipes fill the cistern, if opened together?
   A. 7 1/5 min B. 7 min C. 7 ½ min D. 10 min
3. Two piped A & B can fill a tank in 36 hrs and 45 hrs respectively. If both pipes are opened simultaneously, how much time will be taken to fill the tank?
   A. 20 hrs B. 21 hrs C. 22 hrs D. None
4. A pipe can fill a tank in 15hrs. Due to leak in the bottom, it is filled in 20 hrs. If the tank is full, how much time will the leak take to empty it?
   A. 55 hrs B. 60 hrs C. 61 hrs D. None
5. If a pipe A fills a tank in 10 hrs and pipe B empties it in 15 15 hrs, then in how much time will the tank be filled up if A & B are both opened?
   A. 4 hrs B. 14 hrs C. 20 hrs D. 30 hrs
6. Two taps A & B can fill a water reservoir in 12 and 15 hrs respectively. How long would the two taps take to fill this reservoir if both are opened together?
   A. 6 ¼ hrs B. 6 ½ hrs C. 7 1/3 hrs D. None
7. Two taps can fill a tank in 24 minutes and 30 minutes respectively. Both of them are opened together, but the first tap is turned off after 8 minutes. Now find how long would the second tap take to fill the tank.
   A. 24 ½ min B. 12 min C. 13 2/3 min D. 16 min
8. Two pipes A & B can fill a tank in 24 min and 32 min respectively. If both the pipes are opened simultaneously, the time after which B should be closed so that tank is filled in 18 minutes would be?
   A. 18 min B. 10 min C. 9 min D. 8 min
9. Two pipes A & B can fill a tank in 24 minutes and 36 minutes respectively. If both the pipes are opened simultaneously, the time after which A should be closed so that tank is filled in 18 min would be?
   A. 12 min B. 10 min C. 9 min D. None
10. Two pipes A & B separately fill a cistern in 12 and 15 min respectively while a 3rd pipe C can empty it in 10 minutes. How long will it take to fill the cistern if all pipes are opened?
    A. 10 min B. 20 min C. 30 min D. 22 min
11. A pipes fills a tank in 2 hrs and another files the tank in 3hrs but a 3rd pipe empties the filled tank in 5 hrs. Then if three pipes are opened, the tank will be filled in:
    A. 1 hr B. 1 11/19 hr C. 2 1/9 D. None
12. What is the value of: $\dfrac{1\frac{1}{2}}{1+\dfrac{1}{1+\frac{1}{4}}}$
    A. 3/2 B. 5/4 C. 5/6 D. 1
13. √342/36 * √729/ 9 * √25/ 196 =
    A. 135/14 B. 18/5 C. 18/7 D. None
14. 9.75 + 25.88 + x = 41.18
    A. 5.55 B. 5.75 C. 6.57 D. 4.23
15. 30% of 270 + 5/8 of 64 = x
    A. 120 B. 81 C. 121 D. 242
16. 73.85 + 215.345 – 167.2134 = x
    A. 456.4084 B. 121.6711 C. 120.8296 D. None
17. x% of 150 + 250 = 280
    A. 30 B. 10 C. 40 D. 20
18. 25% of 40 ÷4% of 25 = x
    A. 1 B. 10 C. 0 D. 2
19. Simplify: $(3^4 * 3^7) \div 3^{10}$
    A. 3 B. 9 C. 27 D. 81
20. Find the value of: $\dfrac{2.70 * 2.70 + 4.30 * 4.30 + 8.60 * 2.70}{2.70 + 4.30}$
    A. 6.8 B. 7.6 C. 7.0 D. 8.5

Answers:

1.
2. C
3. A
4. A
5. B
6. D
7. B
8. C
9. A t = y (1 - z/x)
10. A t = x (1 - z/y)
11. B
12. B
13. C
14. D
15. A
16. C
17. D
18. D
19. B