### APTITUDE

1. Find the area of the iron sheet required to prepare a cone 24 cm high with base radius 7 cm
   **(A) 704 cm²**     (B) 702 cm²     (C) 700 cm²     (D) 668 cm²

2. The Sum of the series 31+33+ .... +53 is
   (A) 729     (B) 341     **(C) 504**     (D) 604

3. The Value of $\frac{9^2 \times 18^4}{3^{16}}$ is
   (A) $\frac{2}{3}$     (B) $\frac{2}{3}$     **(C) $\frac{16}{81}$**     (D) $\frac{32}{243}$

4. The Cube root of 0.027 is
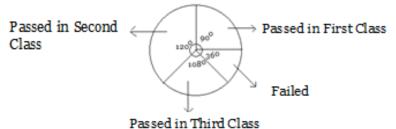   (A) 3     (B) 0.003     (C) 0.03     **(D) 0.3**

5. Given the pie chart. Obtain the pass percentage of student who passed in 1st Class.

   

   (A) 35%     (B) 30%     (C) 10%     **(D) 25%**

6. At the rate of interest compound interest per annum will Rs. 640 amounts to Rs. 7774.40 in 2 years
   (A) 8%     (B) 9%     **(C) 10%**     (D) 11%

7. A Circus tent is cylindrical to a height of 3 m and conical above it. If the base radius is 52.5 m and slant height of the cone is 53m, find the area of canvas required to make the tent.
   (A) 315 $\pi$m²     **(B) 3097.5 $\pi$m²**     (C) 2782.5 $\pi$m²     (D) 2997.5 $\pi$m²

8. Complete the series 1ZA, 3YB, 6 XC, 10WD,
   (A) 14 VE     (B) 15 UE     (C) 12 VE     **(D) 15 VE**

9. The Product of two numbers is 1600 and their H.C.F. is 5, the L.C.M. of the number is
   **(A) 320**     (B) 1605     (C) 1595     (D) 8000

**10.** The Principal amount triples itself at 8% per annum over a certain time. Find the number of years.

(A) 20 years     **(B) 25 years**     (C) 30 years     (D) 35 years

**11.** What number should be subtracted from each of the numbers 54, 71, 75 and 99 so that the remainders may be proportional?

(A) 1     (B) 2     **(C) 3**     (D) 6

**12.** Find the difference between simple interest and compound interest for a sum of Rs. 8,000 lent at 10% p.a in 2 years.

(A) Rs. 70     **(B) Rs. 80**     (C) Rs. 90     (D) Rs. 100

**13.** In How many years will sum of Rs. 1600 amount to Rs. 1852.20 at 5% per annum compound interest?

**(A) 3**     (B) 4     (C) 5     (D) 6

**14.** Simplify $\left[-\frac{1}{3}\right] - \left\{1 \div \left(\frac{2}{3} \times \frac{5}{7}\right) + 8 - \left[5 - \frac{1}{2} - \frac{1}{4}\right]\right\}$

(A) $2\frac{21}{60}$     **(B) $-5\frac{41}{60}$**     (C) $5\frac{41}{60}$     (D) $-2\frac{21}{60}$

**15.** Find the G.C.D of $a^3 - 1$ and $a^2 - 1$

(A) $a^2 - 1$     (B) $a^2 + 1$     (C) $a^3 - 1$     **(D) $a - 1$**

**16.** What percent is 5 grams of 1 kg?

(A) 5%     (B) 1%     **(C) 0.5%**     (D) 0.2%

**17.** If $\frac{a+b}{c} = \frac{b+c}{a} = \frac{c+a}{b} = k$, Then the value of $k$ is

(A) 0     (B) 1     (C) 2     (D) a+b+c

**18.** The ration of boys to girls in a class is 4:5. if the number of boys is 20, then the number of girls is

(A) 15     (B) 20     **(C) 25**     (D) 26

**19.** Area of a square is ½ hectare. The diagonal of the square is

(A) 250 metres     **(B) 100 metres**     (C) $50\sqrt{2}$ metres     (D) 50 Metres

**20.** The Surface areas of two spheres are in the ration 9: 25. Then their volumes are in the ratio

(A) 27:25     **(B) 27:125**     (C) 81: 625     (D) 729: 15625

**21.** A Man sells two wrist watches at Rs. 594 each. On one he gains 10% and on the other he loses 10% find his gain or loss percent on the whole

(A) Loss% = 90%   (B) Gain % = 5%   **(C) Loss % = 1%**   (D) Loss% = 7%

**22.** Simplify $\dfrac{(3^3)^{-2} \; x \; (2^2)^{-3}}{(2^4)^{-2} \; x \; 3^{-4} \; x \; 4^{-2}}$

**(A) $7\frac{1}{9}$**   (B) $7\frac{1}{8}$   (C) $6\frac{2}{9}$   (D) $6\frac{3}{8}$

**23.** 6 men working 10 hours a day can do a piece of work in 24 days. In how may days will 9 men working for 8 hours a day do the same work?

(A) 10 Days   (B) 15 Days   **(C) 20 Days**   (D) 25 Days

**24.** A can finish a job in 20 days and B can complete it in 30 days. They work together and finish the job. If Rs. 600 is paid as wages, then the share of A and B

(A) 240, 360   (B) 300,300   **(C) 360, 240**   (D) 400,200

**25.** If the average of the values 18, 41, X 36, 31,24,37,35,27,36 is 31. Find the value of x.

**(A) 25**   (B) 24   (C) 30   (D) 26