**D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS)**
**APTITUDE TEST**

**COMMON APTITUDE TEST –II TEST 28**

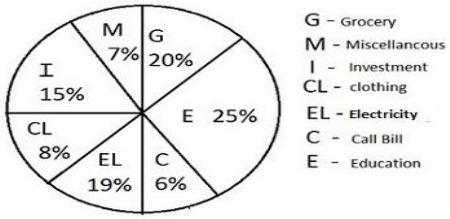
1. If $\cos 4\theta - \sin 4\theta = 1/3$, then the value of $\tan 2\theta$ is
a) 1/2 b) 1/3
c) 1/4 d) 1/5
2. If a perfect square, not divisible by 6, be divided by 6, the remainder will be
a) 1, 3 or 5 b) 1, 2 or 5
c) 1, 3 or 4 d) 1, 2 or 4
3. A batsman in his 12th innings makes a score of 120, and thereby increase his average by 5. The average score after 12th innings is
a) 60 b) 55
c) 65 d) 70
4.The side BC of the ΔABC is extended to the point D. If ∠ ACD = 112° and ∠B = 3/4 ∠A, then the value of ∠B is
a) 64° b) 48°
c) 46° d) 50°
5. ΔABC is a right angled triangle, the radius of its circum circle is 3 cm and the length of its altitude drawn from the opposite vertex to the hypotenuse is 2 cm. Then the area of the triangle is
a) 12 sq cm b) 3 sq cm
c) 6 sq cm d) 5 sq cm
6. The height of a tower is $50\sqrt{3}$ m. The angle of elevation of a tower from a distance 50 m from its feet is
a) 30° b) 45°
c) 60° d) 90°
7. The amount of Rs. 10,000 after 2 years, compounded annually with the rate of interest being 10% per annum during the first year and 12% per annum during the second year, would be (in rupees)
a) 11,320 b) 12,000
c) 12,320 d) 12,500
8. The value of $\tan 80° \tan 10° + \sin^2 70° + \sin 20°$ is $\tan 80° \tan 10° + \sin 270° + \sin 20°$
a) 0 b) 1
c) 2 d) $\sqrt{3}/2$
9. The diagonal of a cube is $\sqrt{192}$ cm. its volume (in $cm^3$) will be
a) 216 b) 432
c) 512 d) 624
10. A circle and a square have same area. The ratio of the side of the square to the radius of the circle will be:
a) $\sqrt{\pi}$: 1 b) 1:$\sqrt{\pi}$
c) $\pi^2$:1 d) 1: $\pi$
11. .If one angle of a triangle is equal to half the sum of the other two equal angles, then the triangle is
a) isosceles b) scalene
c) equilateral d) right angled
12. .If $\text{Sin}^2\theta - \text{Cos}^2\theta = 1/4$, then the value of $\text{Sin}^4\theta - \text{Cos}^4$ is
a) 3/4 b) 1/4
c) 1/16 d) 1/2
13. A cricketer, whose bowling average was 12.4 runs /wicket takes 5 wickets for 22 runs in a match, thereby decreases his average by 0.4. The number of wickets, taken by him before this match was:
a) 78 b) 87
c) 95 d) 105
14. In a Δ ABC, DE || BC. D and E lie on AB and AC respectively. If AB = 7 cm and BD = 3cm, then find BC:DE

a) 2:2 b) 3:2
c) 3.5 : 2 d) 7:2

15. If the angle of elevation of the top of a pillar from the ground level is raised from 30o to 60o, the length of the shadow of a pillar of height 50√3 will be decreased by

a) 60 m b) 75 m
c) 100 m d) 50 m

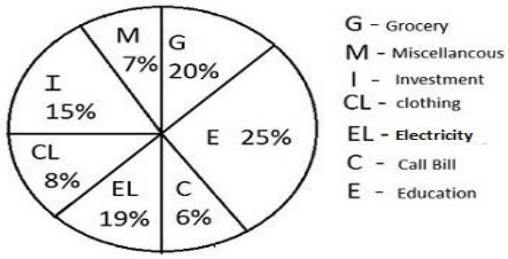
16. Study the following pie-chart and answer the questions. Budget estimated by a family for their monthly expenses.
Total salary = □ 32000 per month




The budget estimated by the family on Clothing and Grocery together is

a) Rs.8950 b) Rs.8960
c) Rs.8850 d) Rs.8860

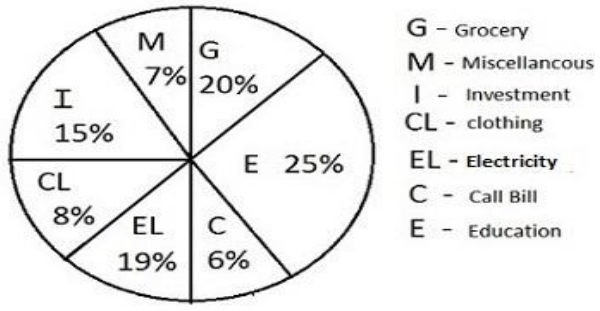
17. Study the following pie-chart and answer the questions. Budget estimated by a family for their monthly expenses.
Total salary = □ 32000 per month




The difference in the amount estimated by the family on Electricity and Call bill is:

a) 4560 b) 4470
c) 4168 d) 4160

18. Study the following pie-chart and answer the questions. Budget estimated by a family for their monthly expenses.
Total salary = □ 32000 per month




The family actually spent Rs.4672 on Grocery. Then the difference in the amount budgeted and

spent on grocery is:

a) 1528 b) 1728
c) 1278 d) 1628

19. The diagonal of a cube is $\sqrt{192}$ cm. its volume (in $cm^3$) will be
a) 216 b) 432
c) 512 d) 624

20. Ravi has a roadmap with a scale of 1.5 cm for 18 km. He drives on that road for 72 km. What would be his distance covered in that map.
a) 4 cm b) 6 cm
c) 8 cm d) 7 cm

21. The least number, which when divided by 5, 6, 7 and 8 leaves a remainder 3 in each case, but when divided by 9 leaves no remainder, is:
a) 1677 b) 1683
c) 2523 d) 3363

22. Sum of the factors of $4b2c^2 - (b^2 + c^2 – a^2)$ 2 is
a) a + b + c b) 2(a + b + c)
c) 0 d) 1

23. The sum of two angles of a triangle is $116^o$ and their difference is $24^o$. The measure of smallest angle of the triangle is
a) $38^\circ$ b) $28^\circ$
c) $46^\circ$ d) $64^\circ$

24. The difference between the compound interest and the simple interest on Rs. 6250 at 8% per annum in 2 years is
a) Rs.30 b) Rs.40
c) Rs.50 d) Rs.60

25. ABCD is a cyclic quadrilateral $\angle DBA=50^0$ and $\angle ADB = 33^0$. Then the measure of $\angle BCD$ is
a) 83° b) 80°
c) 75° d) 60°