Dr.K.K.R GOWTHAM EDUCATIONAL INSTITUTIONS :: A.P & T.S

Class: 6- CO*, CO **Marks: 100**
Sub: Maths , Physics **Time: 2 ½ Hrs**

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I. **Objective type questions :** **50 × 2= 100 M**

Maths

1. The present age of father and his son are 30 years and 6 years. In how many years their ages will be in the ratio 5 : 2 [   ]
    a. 5 yr b. 10 yr c. 15 yr d. 12 yr

2. The sum of present ages of a father and his son is 60 years. Six years ago father age was five times the age of the son. After 6 years son's age will be? [   ]
    a. 14 b. 20 c. 26 d. 46

3. In a two digit number, the tens digit is 2 more than units digit. Sum of the digits is 1/7 of the whole number. Find the digits and number [   ]
    a. 24 b. 64 c. 42 d. 86

4. The length of the rectangular hall is 5 m more than its breath. If the perimeter of hall is 74m, find its length and breadth [   ]
    a. 11, 6 b. 26, 21 c. 16, 11 d. 21, 16

5. A tank is 2/5 full. If 16 litres of water is added to the tank, it becomes 6/7 full. The capacity of tank is
    a. 35 b. 42 c. 28 d. 14 [   ]

6. There are some lotus flowers in a pond and some bees are hovering around. If one bee lands on each flower, one bee will be left. If two bees land on each flower, one flower will be left. Find the number of bees and flowers [   ]
    a. 4, 3 b. 7, 6 c. 2,1 d. 11, 10

7. Bani and Beni are two brothers. 1/3 of Bani's age added to Beni's age would total 10 and Bani's age together with half of Beni's age total 10. Find their ages. [   ]
    a. 6, 8 b. 3,7 c. 6,4 d. 2, 8

8. Mohan bought 8 oranges for Rs. 4.80 If John has Rs. 7.20, how many oranges more than mohan, can be buy? [   ]
    a. 5 b. 7 c. 4 d. 15

9. A purse contains Rs. 5, Rs. 2 and Rs. 1 coins in the ratio 1 : 3 : 5 by number. If the total value of all coins, be Rs. 272, Then the number of Rs. 5 Rs. 2, and Rs. 1 coins are _____-- [   ]
    a. 17, 51 and 65 b. 17, 51 and 85 c. 17, 15 and 65 d. 15, 17 and 85

10. Find the height of pole which carts a shadow 20m long at a time and place, where the shadow of a stick 1m long is 55cm. [   ]
    a. $26\dfrac{2}{11}$ b. $36\dfrac{4}{11}$ c. $46\dfrac{6}{11}$ d. 20

11. A pulley revolves at a speed that is inversely proportional to its diameter. A pulley with a diameter of 12 cm is belted to a pulley with a diameter of 8 cm. IF the smaller pulley is revolving at a rate of 96 r.p.m (revolutions per minute) how fast is the larger pulley revolving? [   ]
    a. 32 rpm b. 64 c. 72 d. 48

12. $4\dfrac{1}{2}$ % of Rs. 1800 = Rs. _____ [   ]
    a. 51 b. 61 c. 71 d. 81

13. If 4.6% of x is 23, then x = _____ [   ]
    a. 400 b. 500 c. 460 d. 500

14. If the numerator of a fraction be incrased by 15% and its denominator be diminished by 8%, The value of fraction is $\dfrac{15}{16}$. Find the original fraction [   ]
    a. $\dfrac{1}{4}$ b. $\dfrac{3}{4}$ c. $\dfrac{5}{8}$ d. $\dfrac{8}{15}$

15. After incurring a loss of $33\frac{1}{3}$% a man has Rs. 18600 left with him. What was the amount of money he originally had? [   ]
    a. 30,000   b. 6200   c. 27900   d. 12400

16. Ram's income is 25% more than the income of his wife. By how much percent is his wife's income less that his income [   ]
    a. 10%   b. 20%   c. 30%   d. 80%

17. If the cost price of 18 oranges is same as the selling price of 16 oranges then gain percent is [   ]
    a. 10%   b. 12 ½%   c. 15%   d. 17 1/2%

18. The ratio of cost price and selling price is 4 : 5 The profit percent is _____ [   ]
    a. 25%   b. 35%   c. 50%   d. 80%

19. A man bought apples at the rate of 8 for Rs. 34 and sold them at the rate of 12 for Rs. 57. How many apples should be sold to earn a net profit of Rs. 45 ? [   ]
    a. 70   b. 90   c. 60   d. 45

20. A cycle is sold for Rs. 880 at a loss of 20%, for how much should it be sold to gain 10% [   ]
    a.   1010 Rs   b. 1410 Rs   c. 1210 Rs   d. 990 Rs.

21. If SP of an article is $\frac{4}{3}$ of its cp then profit percent is [   ]
    a.   25   b. 75   c. $66\frac{2}{3}$ d.$33\frac{1}{3}$

22. A man buys eggs at 2 for 1 Rs. And an equal number at 3 for Rs. 2 and sells the whole at 5 for Rs. 3. His gain or loss percent is _____ [   ]
    a.   Gain $2\frac{6}{7}$ b. loss $3\frac{6}{7}$ c. gain 35   d. loss 35

23. A trader marks his goods 30% above the cost price but makes a reduction of $6\frac{1}{4}$% on the marked price. His gain percent _____ [   ]
    a.   10%   b. 11.875   c. 21.875   d. 12

24. A man look a loan from a bank at the rate of 12% p.a. simple interest. After 3 years he had to pay Rs. 5400 interest only for the period. The principal borrowed by him _____----- [   ]
    a.   Rs. 2000   b. Rs. 10, 000   c. Rs. 15000   d. Rs. 20000

25. At the rate of $8\frac{1}{2}$% p.a. simple interest a sum of Rs. 4800 will earn how much interest in 2 years 3 months? [   ]
    a.   Rs. 796   b. Rs. 816   c. Rs. 918   d. Rs. 956

26. At what rate percent of simple interest will a sum of money double it self in 12 years [   ]
    a. $8\frac{1}{4}$%   b. $\frac{1}{3}$%   c. $8\frac{1}{2}$%   d. $9\frac{1}{2}$%

27. A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 yr the sum is
    a.   Rs. 650   b. Rs. 690   c. Rs. 698   d. Rs. 700

28. If the annual rate of simple interest increases from 10% to $12\frac{1}{2}$%, a man's yearly income increased by Rs. 1250. His principal is [   ]
    a.   45000   b. 50,000   c. 60000   d. 65000

29. A sum invested at 5% simple interest per annum grows to Rs. 504 in 4 years the same amount at 10% simple interest per annum in $2\frac{1}{2}$ years will grow to [   ]
    a.   Rs. 420   b. Rs. 450   c. Rs. 525   d. Rs. 550

30. Divide Rs. 2379 into 3 parts so that their amounts after 2, 3 and 4 years respectively may be equal the rate of interest being 5% per annum at simple interest the first part is _____ [   ]
    a.   Rs. 759   b. Rs. 792   c. Rs. 818   d.. Rs. 828

Physics

31. Workdone on a body can be [   ]
    a. Positive   b. negative   c. zero   d. all the above

32. If a porter (of height 150cm) lifts the load of 20kg from railway platform and keeps on his head the workdone by him on the load is [   ]
    a. 200J   b. -300J   c. zero   d. 300J

33. A 10kg box is kept on a horizontal surface A horizontal force moves the box through a distance of 10m with an acceleration of 1m/s². The amount of work done by force is [   ]
    a. 200J   b. 100J   c. zero   d. 200J

34. Units of the work [   ]
    a. Newton   b. Joule   c. N/m   d. J/sec

35. A book of mass 4kg is on the table of height 5m. Its potential energy is [   ]
    a. 20J   b. -200J   c. zero   d. 200J

36. A 100 kg man is running uniformly with speed of 2m/s his kinetic energy is [   ]
    a. 20J   b. -200J   c. zero   d. 200J

37. A 4 kg vulture is flying with speed of 5m/s in the sky at a height of 25m Its potential energy is
    a. 50J   b. 1000J   c. zero   d. 100J

38. The kinetic energy of a 4kg body is 50J. The speed of the body is [   ]

39. If the mass of the body is doubled and its velocity is halved then its kinetic energy is[ ]
    a. E   b. ½ E   c. ¼ E   d. 2E

40. A body of mass m which is moving with velocity 'v' has momentum p. If the mass of the body is doubled and its velocity is doubled then its momentum is [   ]
    a. P   b 2p   c. 4p   d. 8p

41. The momentum of a body having kinetic energy 'E' is halved then the find kinetic energy is
    a. 2E   b. E/2   c. 4E   d. E/4   [   ]

42. A body has momenta in the ratio of 2 : 3 at different instant of times. The ratio of K.E at those instant is [   ]
    a. 2:3   b. 3:2   c. 4 : 9   d. 9 : 4

43. A body of mass 4 kg is at rest on the table. Due to application of force its velocity changed to 5m/s after travelling a distance of 10 m. The work done by the force is [   ]
    a. 25J   b. 50J   c. 2.5J   d. 5J

44. A body of mass 5kg moving with a velocity of 6m/s comes to rest due to external force find the work done by the force is [   ]
    a. 60J   b 90J   c. -60J   d. -90J

45. The intial kinetic energy of a body is 50J. Find the amount of work done by the force if the final kinetic energy is 150J [   ]
    a. 50J   b. 100J   c. 200J   d. 250J

    Descriptive type questions

46. If the workdone by the force to double the speed of a body is 300J then find the amount of work done by the force to triple the initial speed of the body?

The kinetic energy of a body is five times to that of another body when they are moving with same velocity. Find the ratio of their mass?