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

Class: 7-All **Marks: 100**

Sub: Maths , physics, chemistry **Time: 2 ½ Hrs**

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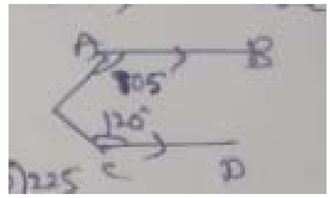
I. Objective type questions : **50 × 2= 100 M**

Maths

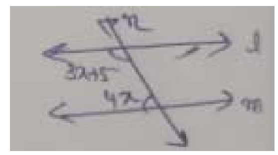
1. In the following figure AB||CD, the value of x= ________ [ ]



   a. 75 c. 135

   b. 60 d. 225

2. For what value if x will be the lines l and m be parallel to each other [ ]



   a. 15^0 c. 35^0

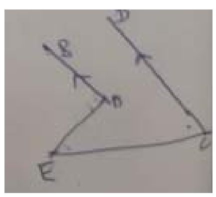
   b. 25^0 d. 45^0

3. If the bisectors of two pairs of interior angles of two parallel lines are intersected by a transversal encloses a ______ [ ]

   a. Square b. rectangle c. rhanbos d. kite

4. In the given figure AB||CD then ∠BAE - ∠DCE= ______ [ ]

   a. ∠AEC b. ∠BAE c. ∠ECD d. ∠ABC



5. A statement that requires a proof is called _________ [ ]

   a. Property b. theorem c. axsom d. none

6. If two straight line out one another, the vertically opposite angles [ ]

   a. Complementary b. supplementary c. equal d. adjacent

7. If l||m and m⊥ n them ______ [ ]

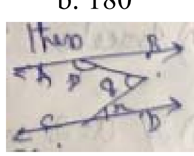
   a. L||n b. l ⊥ n c. l ∩ n=∅ d. none

8. If a transversal intersects two parallel lines then each pair of _______ [ ]

   a. A.I.A are b. C.I.A are c. corresponding angle are equal d. all

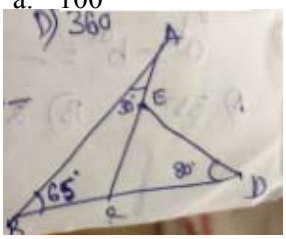
9. In the given figure AB||CD then p+q-r = ________ [ ]

   a. 90^0 b. 180^0 c. 270^0 d. 360^0



10. In the given figure $\angle ACD$= _____ [ ]

a. 100^0 b. 140 c. 95 d. 135



11. A group of workers having equal efficiency can complete a job on 4 days. But it so happened that every alternative day starting from the second day. 3 workers are withdrawn from the job and every alternative days starting from the third day 2 workers are added in the group. If at now takes 7 days to complete the work, find the number of workers who started the job? [ ]

a. 15 b. 10 c. 6 d. 12

12. If 6 persons working 8 hrs a day on Rs 8400 per week then how much will 9 persons earn working 6 hrs a day each per week ? Rs. _____ [ ]

a. 8400 b. 9600 c. 9500 d. 9450

13. The ratio of work of x, y, z is 2 : 3 : 5 then the ratio of their times is ____ [ ]

a. 10 : 15 : 6 b. 15 : 10 : 6 c. 6 : 10 : 15 d. 15 : 6 : 10

14. A person travels equal distances with speeds of 3 kmph, 4kmph. 5kmph and takes a total time of 47 min the total distance is _____ km [ ]

a. 2 b. 3 c. 4 d. 5

15. A man notices that he can count 21 poles in one minute.It they are known to be 50 meters apart then the speed of the train is _____ kmph [ ]

a. 55 b. 57 c. 60 d. 65

16. A, B,C together earn Rs. 300 per day while A and C together earn Rs. 188 and B and C earn Rs. 152, the daily earning of C is Rs. _____ [ ]

a. 80 b. 60 c. 40 d. 20

17. In a polygon each interior angle is $7\frac{1}{2}$ times of exterior angle at the vertex then no. of sides of a polygon is _____ [ ]

a. 10 b. 15 c. 17 d. 9

18. If $2^x - 2^{x-1} = 4$ then $2^x + 2^{x-1}$ = [ ]

a. 8 b. 10 c. 12 d. 14

19. If $3^{x+8} = 27^{2x+1}$ then $\left[\left[\frac{\sqrt{289}}{\sqrt[3]{216}}\right]^x \div \left[\frac{17}{\sqrt[4]{1296}}\right]^x\right]^{\frac{1}{2}}$ = [ ]

a. 0 b. -1 c. 1 d. -2

20. $(1+x)(1+x^2)(1+x^4)(1+x^8)(1+x^{16})$ = _____ [ ]

a. $\frac{1+x^{32}}{1+x}$ b. $\frac{1-x^{32}}{1+x}$ c. $\frac{1+x^{32}}{1-x}$ d. $\frac{1-x^{32}}{1-x}$

Physics

21. A person of mass 50kg climbs a tower of height 72m .The work done is [ ]
a)35280J b)32580 J c)52380 J d)58320 J

22. A force of 10N causes a displacement 2m in it's own direction calculate work done by a force?[ ]
a)20J b)10J c)5J d)2J

23. An engine 54000J of work by exerting a force of 6000N on it what is the displacement of the force? [ ]
a)9m b)6m c)5m d)2m

24. A body of mass 120g is taken vertically upwards to reach a height of 5m calculate the work done
a)-2J b)-5J c)-6J d)6J [ ]

25. A body of mass 5kg raised to 0.2 m find the work done? [ ]
a) 9.8J b)98J c)0.98J d)196J

26. How much work is done by an applied force is to lift a force of 15 newton block 3.0 metres vertically at constant speed? [ ]
a)98J b)196J c)0J d)45J

27. An object of mass 1kg through a height h it's potential Energy is 1 J (g=9.8) [ ]
a)0.109m b)0.111m c)0.102m d)0.123m

28. An aeroplane of mass 400 ton is moving with a speed of 450 kmph at a height of 500m from the ground its kinetic energy is [ ]
a)405×10^6J b)405×10^8J c)3125×10^6J d)3125×10^10J

29. If the mass of the body is doubled and its velocity is halved then its kinetic energy is [ ]
a)E b)(1/2)E c)(1/4)E d)2E

30. The ratio of kinetic Energies of a body at different instants of time is1:4 the ratio of momenta at those instants is [ ]
a)1:2 b)2:1 c)16:1 d)1:16

31. The work done by a machine in performing some work is 30J it takes 6s to perform the work the power of the machine is [ ]
a)30w b)180w c)6w d)5w

32. find the mass of the substance containing a volume of 800cc whose specific gravity is 0.75[ ]
a)300g b)400g c)600g d)500g

33. Equal masses of two substances whose densities are 0.3g/cc and 0.9g/cc are mixed homogeneously find the density of the mixture [ ]
a)0.35 g/cc b)0.45 g/cc c)0.55 g/cc d)0.65 g/cc

34. The force on a bottom of the tank is 120 kg wt if the pressure is 12 ps find the area? [ ]
a)10meter square b)100 meter square c)5meter square d)50 meter square

35. find the fraction of the volume of a body inside a fluid whose R.D =1.8 when it is immersed in it. The density of the body is 0.4g/cc [ ]
a)2/18 b)1/18 c)2/9 d)3/18

Chemistry

36. Atomicity of $Al_2(SO_3)_3$ is [ ]

a. 12 b. 13 c. 14 d. 15

37. The ratio of C, H and 0 in $C_6H_2O_6$ [ ]

a. 1:2:3 b. 3:2:1 c. 1:2:1 d. 1:2:2

38. The percentage abundances of C^{12}, C^{14} are 75% and 25% respectively. The average atomic mass of carbon (in amu) is [ ]

a. 12.4 b. 12.3 c. 12.5 d. 12

39. An example is isotopes is [ ]

a. ${}_6C^{14}, {}_7C^{14}$ b. ${}_{17}Cl^{35}, {}_{17}Cl^{37}$ c. ${}_6C^{14}, {}_7N^{14}$ d. ${}_8O^{16}, {}_7N^{14}$

40. Standard of atomic mass is [ ]

a. C-12 b. O-16 c. C-13 d. H-1

41. The ${}_1H^1$ contains [ ]

a. 1 proton, 1newtron, 1 electron c. 2 proton, 2 newtron, 0 electron

b. 1 proton, 0 newtron, 1 electron d. 2 proton, 1 newtron, 1 electron

42. An example of compound molecule is [ ]

a. CO_2 b. Cl_2 c. O_2 d. N_2

43. An example of triatomic molecule is [ ]

a. So_2 b. N_2O c. O_3 d. All the above

44. A pure substance can only be [ ]

a. compound b. an element c. both A & B d. none

45. Intermolecular distance is very high in [ ]

a. gases b. solids c. liquids d. both A & C

46. bismuth is an example of [ ]

a. metal b. metalloid c. non metal d. liquid

47. Which one of the following can't be drawn into wires [ ]

a. Fe b. Al c. Cu d. Coal

48. The number of water molecules in a drop of water weighing 5mg is [ ]

a. 1.67×10^{20} b. 3.0125×10^{21} c. 6.023×10^{22} d. 1.67×10^{21}

49. the density of a gas at STP is 1.2g / lit. its molecular weight nearly [ ]

a. 27 b. 54 c. 30 d. 16

50. The mass of 1.5 X 10^{20} atoms of an element is 15mg. the atomic mass of an element is [ ]

a. 60g b. 60mg c. 60amu d. 6