

Nucleus software mock – 2

Q1. What will be the least number which when doubled will be exactly divisible by 12, 18, 21 and 30 ?

- (a) 196 (b) 630 (c) 1260 (d) 2520

Q2. The cost price of a radio is Rs. 600. The 5% of the cost price is charged towards transportation. After adding that, if the net profit to be made is 15%, then the selling price of the radio must be

- (a) Rs. 664.50 (b) Rs. 684.50 (c) Rs. 704.50 (d) Rs. 724.50

Q3. What is R's share of profit in a joint venture? To answer this question, three statements are given select which are necessary to answer the question?

I. Q started business investing Rs. 80,000.

II. R joined him after 3 months.

III. P joined after 4 months with a capital of Rs. 1,20,000 and got Rs. 6000 as his share profit.

- (a) All I, II and III (b) I and III only (c) II and III only
(d) Even with all I, II and III, the answer cannot be arrived at (e) None of these

Q4. If 3 farmers or 4 tractors can plough a field in 43 days, then the number of days that 7 farmers and 5 tractors take to plough it is:

- (a) 12 (b) 18 (c) 24 (d) 30

Q5. The average of four consecutive numbers A, B, C and D respectively is 49.5. What is the product of B and D?

- (a) 2499 (b) 2352 (c) 2450 (d) 2550 (e) None of these

Q6. A pipe can empty a tank in 40 minutes. A second pipe with diameter twice as much as that of the first is also attached with the tank to empty it. The two together can empty the tank in

- (a) 38 minutes (b) 30 minutes (c) $13\frac{1}{3}$ minutes (d) 8 minutes

Q7. The slant height of a right circular cone is 10 m and its height is 8 m. Find the area of its curved surface. (a) $30\pi\text{ m}^2$ (b) $40\pi\text{ m}^2$ (c) $60\pi\text{ m}^2$ (d) $80\pi\text{ m}^2$

Q8. In an objective test a correct answer score is 4 marks and on a wrong answer 2 marks are deducted. A student score 480 marks from 150 question. how many answers were correct?

- (a) 120 (b) 130 (c) 110 (d) 150

Q9. A simple interest amount of rs 5000 for six month is rs 200. what is the annual rate of interest?

- (a) 10% (b) 6% (c) 8% (d) 9%

Q10. Two trains of equal length are running on parallel lines in the same direction at 46 km/hr and 36 km/hr. The faster train passes the slower train in 36 seconds. The length of each train is:

- (a) 50 m (b) 72 m (c) 80 m (d) 82 m

Q11. An article is sold at 15% discount on is Rs 425. What is the list price of the article?

- (a) 500 (b) 488 (c) 480 (d) 510

Q12. The principal amount that becomes Rs. 4913 in 3 years at interest rate of $25\frac{1}{4}\%$ per annum when interest is compounded annually is:

- (a) 4306 (b) 4396 (c) 4096 (d) 4809

Q13. If a man or 2 women or 3 boys can do a piece of work in 44 days, then the same piece of work will be done by 1 man, 1 woman and 1 boy in:

- (a) 21 days (b) 24 days (c) 26 days (d) 33 days

Q14. In a class 45 students boys and girls are in the ratio of 5 : 4 respectively. Average marks obtained by boys in Mathematics out of 100 were 76 and that of girls were 78. What are average marks of boys and girls together in Mathematics (rounded-off to two decimal points) ?

- (a) 76.89 (b) 77 (c) 77.29 (d) 76.98 (e) None of these

Q15. Varun, Sachin and Kowshi, enter into a partnership. Varun puts Rs. 500 for 3 months. Sachin Rs. 650 for 8 months and Kowshik Rs. 300 for 11 months. They gain Rs., 840. Find the share of Kowshik.

- (a) Rs. 260.20 (b) Rs. 126 (c) Rs. 277.20 (d) Rs. 300.80

Q16. Three numbers which are co-prime to each other are such that the product of the first two is 551 and that of the last two is 1073. The sum of the three numbers is:

- (a) 75 (b) 81 (c) 85 (d) 89

Q17. The simple interest on certain sum for 2 years is Rs.160 and compound interest at same rate of interest is Rs.168. What is the sum & Rate of interest?

- (a) 1000,11% (b) 800,10% (c) 1600,8% (d) 1200,12.5%

Q18. 125% of $86 \div 43 \times 32 \div 8 = ? \times \sqrt{25}$

- (a) 5 (b) 1 (c) 4 (d) 2 (e) 3

Q19. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is:

- (a) 1 : 3 (b) 3 : 2 (c) 3 : 4 (d) None of these

Q20. The MRP of a shirt is Rs. 2000. A shopkeeper allowed a discount of 20% and a successive discount of $x\%$ there fore the shirt is available at Rs. 1200. Find the Value of x ?

- (a) 20% (b) 25% (c) 30% (d) None of these

Q21. The average weight of a group consisting of 7 people is 55 kg. Two people with a total weight of 124 kg left the group and three people whose average weight is 61 kg joined the group. What is the new average weight of the group?

- (a) 63.4 kg (b) 56.5 kg (c) 54.5 kg (d) 55.5 kg (e) None of the above

Q22. Two bus tickets from city A to B and three tickets from city A to C cost Rs. 77 but three tickets from city A to B and two tickets from city A to C cost Rs. 73. What are the fares for cities B and C from A ?

- (a) Rs. 4, Rs. 23 (b) Rs. 13, Rs. 17 (c) Rs. 15, Rs. 14 (d) Rs. 17, Rs. 13

Q23. Buses, part from a bus terminal with a speed of 20 km/hr at intervals of 10 minutes. What is the speed of a man coming from the opposite direction towards the bus terminal if he meets the buses at intervals of 8 minutes?

- (a) 7 km/hr (b) 5 km/hr (c) 4 km/hr (d) 3 km/hr

Q24. Raj invested Rs 76000 in a business. After few months Monty joined him and invests Rs 57000. At the end of the year, both of them share the profits at the ratio of 2:1. After how many months Monty joined Raj?

- (a) 4 Months (b) 7 Months (c) 8 Months (d) 12 Months

Q25. X is 25% more efficient than Y and his hourly wages are 25% more. If X is paid Rs. 75, how much will Y receive for the same work?

- (a) 65 (b) 90 (c) 75 (d) 110

Q26. A man rows to a place 35 km in distance and back in 10 h 30 min. He found that he can row 5 km with the stream in the same time as he can row 4 km against the stream. Find the rate of flow of the stream.

- (a) 0.5 km/h (b) 0.6 km/h (c) 0.4 km/h (d) 0.75 km/h

Q27. What percentage of numbers from 1 to 30 has 1 or 9 in the unit's digit?

- (a) 12 (b) 15 (c) 20 (d) 22

Q28. The product of two numbers is 120 and the sum of their squares is 289. The sum of the number is:

- (a) 20 (b) 23 (c) 169 (d) None of these

Q.29 Find the odd man out.

10, 25, 45, 54, 60, 75, 80

- (a) 10 (b) 45 (c) 54 (d) 75

Q30. Find the odd man out.

396, 462, 572, 427, 671, 264

- (a) 396 (b) 427 (c) 671 (d) 264

Q31. Excluding stoppages, the speed of a bus is 72 kmph and including stoppages, it is 54 kmph. For how many minutes does the bus stop per hour?

- (a) 9 (b) 10 (c) 15 (d) 20

Q32. A tank has a leak which would empty the completely filled tank in 10 hours. If the tank is full of water and a tap is opened which admits 4 litres of water per minute in the tank, the leak takes 15 hours to empty the tank. How many litres of water does the tank hold?

- (a) 1200 litres (b) 2400 litres (c) 4500 litres (d) 7200 litres

Q33. In a race of 800 metres, A can beat B by 40 metres. In a race of 500 metres, B can beat C by 5 metres. In a race of 200 metres, A will beat C by how many metres?

- (a) 1.19 metre (b) 1.27 metre (c) 11.9 metre (d) 12.7 metre

Q34. A hall is 15 m long and 12 m broad. If the sum of the areas of the floor and the ceiling is equal to the sum of the areas of four walls, the volume of the hall is:

- (a) 720 (b) 900 (c) 1200 (d) 1800

Q35. In how many different ways can the letters of the word 'LEADING' be arranged in such a way that the vowels always come together?

- (a) 360 (b) 480 (c) 720 (d) 5040 (e) None of these

Q36. A, B, C, D and E play a game of cards. A says to B, "If you give me three cards, you will have as many as E has and if I give you three cards, you will have as many as D has." A and B together have 10 cards more than what D and E together have. If B has two cards more than what C has and the total number of cards be 133, how many cards does B have?

- (a) 22 (b) 23 (c) 25 (d) 35

Q37. Two trains are moving in opposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:

- (a) 36 (b) 45 (c) 48 (d) 49

Q38. A can finish a piece of work in 20 days, B in 30 days. They started working on it, and A left 5 days before completion of the work. For how many days they worked together?

- (a) 7 days (b) 10 days (c) 17 days (d) 24 days

Q39. In a game of 100 points, A can give B 20 points and C 28 points. Then, B can give C:

- (a) 8 points (b) 10 points (c) 14 points (d) 40 points

Q40. A girl counted in the following way on the fingers of her left hand. She started by calling the thumb 1, the index finger 2, middle finger 3, ring finger 4, little finger 5 and then reversed direction calling the ring finger 6, middle finger 7 and so on. She counted upto 1994. She ended counting on which finger?

- (a) Thumb (b) Index finger (c) Middle finger (d) Ring finger

Answer key

1	B	9	C	17	B	25	C	33	C
2	D	10	A	18	D	26	D	34	C
3	D	11	A	19	B	27	C	35	C
4	A	12	C	20	B	28	B	36	C
5	A	13	B	21	D	29	C	37	C
6	D	14	A	22	B	30	B	38	B
7	C	15	C	23	B	31	C	39	B
8	B	16	C	24	A	32	D	40	B