CAMPUS 2 CAREER

COMPANY SPECIFIC TRAINING

(KAAR TECHNOLOGIES) - WORKBOOK

Reach Us:

MADURAI: No: 1, Annai Complex, Vasantha Nagar 3rd Street, Madurai 625 003. Ph: 0452 2300588

CHENNAI: 149, 1C, 2nd floor, opp to DLF IT park, Mount poonamalle high road, Ramapuram, Chennai, Tamilnadu 600089. Ph: 044 4853 8323

Mobile: +91 9840044969 / +91 8939992688/89

Email: info@topfreshers.coml **Website:** www.topfreshers.com

KAAR TECHNOLOGIES TEST PATTERN

Sections	Number of Question	Time Allocated
Quantative Aptitude	20 Questions	90 Minutes(shared)
Verbal	10 Questions	
Logical Reasoning	20 Questions	
Programming - Java MCQs	10 Questions	

Note: This material is intended only for internal training purpose, it's not a saleable material

NUMBER SYSTEM:

1.The sum of the digits of a two-digit number is 15 and the difference between the digits is 3. What is the two-digit number?

A.69 B.78 C.96 **D. Cannot be determined**

2.The sum of the squares of three numbers is 138, while the sum of their products taken two at a time is 131. Their sum is:

A.20 B.30 C.4 D.None of these

3.A number consists of two digits. If the digits interchange places and the new number is added to the original number, then the resulting number will be divisible by:

A.3 B.5 C.9 **D.11**

.

4.In a two-digit, if it is known that its unit's digit exceeds its ten's digit by 2 and that the product of the given number and the sum of its digits is equal to 144, then the number is:

A.24 B.26 C.42 D.46

5.Find a positive number which when increased by 17 is equal to 60 times the reciprocal of the number.

A.3 B.10 C.17 D.20

.

6.The product of two numbers is 9375 and the quotient, when the larger one is divided by the smaller, is 15. The sum of the numbers is:

A.380 B.395 **C.400** D.425

7.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

.

8.A number consists of 3 digits whose sum is 10. The middle digit is equal to the sum of the other two and the number will be increased by 99 if its digits are reversed. The number is:

A.145 **B.253** C.370 D.352

9.The sum of two number is 25 and their difference is 13. Find their product.

A.104 **B.114** C.315 D.325

.

10.What is the sum of two consecutive even numbers, the difference of whose squares is 84?

A.34 B.38 **C.42** D.46

11.How many of the following numbers are divisible by 3 but not by 9.
4320, 2343, 3474, 4131, 5286, 5340, 6336, 7347, 8115, 9276

A.5 **B.6** C.7 D.None of these

12.The difference between the squares of two consecutive odd integers is always divisible by:

A.3 B.6 C.7 **D.8**

13.If p and q are the two digits of the number 653pq such that this number is divisible by 80, then p+q is equal to :

A.2 B.3 C.4 D.6

14.A 3-digit number 4p3 is added to another 3-digit number 984 to give the four-digit number 13q7, which is divisible by 11. Then, (p + q) is :

A.10 B.11 C.12 D.15

15.What should be the maximum value of Q in the following equation?
5P9 – 7Q2 + 9R6 = 823

A.5 B.6 **C.7** D.9

16. If the number 6354 * 97 is divisible by 9, then the value * is
a) 2 b) 4 c) 6 d) 7

17. The number 87846 is divisible by
a) 2 only b) 3 only c) 11 only d) all of these

18. The LCM of two numbers is 432 and their HCF is 36. If one of the numbers is 108, then find the other number.

19. The LCM of two co-prime numbers is 5005. If one of the numbers is 65, then find the other number.

20. The LCM of two numbers is 6 times their HCF. If the HCF is 12 and one of the numbers is 36, then find the other number.

21. Find the smallest number which gives remainder 5, when divided by any of the numbers 8,12 and 15.
a) 120 b) 240 c) 125 d) 65 e) None of these

22. What is the least number which when divided by 8, 12, 15 and 18 leaves remainder 5,9,12 and 15 respectively?
a) 180 b) 357 c) 360 d) 363 e) None of these

23. What is the greatest number that exactly divides 392,486 and 627 so as to leave the same remainder in each case?
a) 47 b) 43 c) 37 d) 34 e) None of these

24. The greatest number that divides 1657 and 2037 leaving respectively 6 and 5 as remainder,
is:
a) 123 b) 127 c) 235 d) 305 e) None of these

25. Find the LCM of 2/3,4/9,5/12
a) 20/3 b) 10/3 c) 15 d) 5 e) None of these

26. Find the HCF of 1/6,2/9,4/15
a) 1/45 b) 1/60 c) 1/90 d) 1/105 e) None of these

27. Simplify the following numerical expressions:
(i) $(10 + 17) \div 3$
(ii) $12 - [3 - \{6 - (5 - 1)\}]$
(iii) $100 + 8 \div 2 + \{(3 \times 2) - 6 \div 2\}$

28. The sum of the factors of 27 is
a) 28 b) 37 c) 40 d) 31

29. The factors of a number are 1, 2, 4, 5, 8, 10, 16, 20, 40 and 80.What is the number?
a) 80 b) 100 c) 128 d) 160

30. A,B,C,D and E are five consecutive odd numbers. The sum of A and C is 146. What is the value of E?
a)75 b)81 c)71 d)79

31. The product of two successive numbers is 4692 . Which is the smaller of the two numbers?
a)69 b)62 c)68 d)67

32. The product of two consecutive even numbers is 3248. Which is the larger number?
a)58 b)62 c)56 d)60

33.

$$7\frac{1}{2}-\frac{1}{9}\left[3\frac{3}{4}\div\left\{\frac{5}{6}\ of\ \frac{2}{3}\left(\frac{1}{3}-\left(\overline{\frac{1}{4}-\frac{1}{6}}\right)\right)\right\}\right]$$

34.simplify

$$\cfrac{2}{2+\cfrac{2}{2+\cfrac{2}{2+\cfrac{2}{2+2}}}}$$

35.if $x^2+1/x^2=48$,find the value of x-1/x=?
(a)16 (b) 9 (c) 10 (d) 3 (e) 18

36.What is the unit digit in 43133 x 42573?
(a)1 (b)0 (c)5 (d)9

37. What is the unit digit in 7105?
(a)3 (b)7 (c)1 (d)3

38. A small boy went to a town to sell a basket of wood apples. On the way, some robbers grabbed the fruits from him and ate them. The small boy went to the King and complained. TheKing asked him, “How many wood apples did you bring?”. The boy replied, “Your Majesty! I didn’t know, but I knew that if you divided my fruits into groups of 2, one fruit would be left in the basket”. He continued saying that if the fruits were divided into groups of 3, 4, 5 and 6, the fruits left in the basket would be 2, 3, 4 and 5 respectively. Also, if the fruits were divided into groups of 7, no fruit would be there in the basket. Can you find the number of fruits, the small boy had initially?

39. The traffic lights at three different road junctions change after every 40 seconds, 60 seconds and 72 seconds respectively. If they changed simultaneously together at 8 a.m at the junctions, at what time will they simultaneously change together again?

40. Six bells commence tolling together and toll and intervals of 2,4,6,8,10 and 12 seconds respectively. In 30 minutes, how many times do they toll together
(a)3 (b)12 (c)15 (d)16

SI &CI

1.A father left a will of Rs.35 lakhs between his two daughters aged 8.5 and 16 such that they may get equal amounts when each of them reach the age of 21 years. The original amount of Rs.35 lakhs has been instructed to be invested at 10% p.a. simple interest. How much did the elder daughter get at the time of the will?

A) Rs.17.5 lakhs **B)Rs.21 lakhs** C) Rs.15 lakhs D) Rs. 20 lakhs

2.What will Rs.1500 amount to in three years if it is invested in 20% p.a. compound interest, interest being compounded annually?

A) 2400 **B) 2592** C) 2678 D)2540

3. If a sum of money grows to 144/121 times when invested for two years in a scheme where interest is compounded annually, how long will the same sum of money take to treble if invested at the same rate of interest in a scheme where interest is computed using simple interest method?

A) 9 years **B) 22 years** C) 18 years D)33 years

4. The population of a town was 3600 three years back. It is 4800 right now. What will be the population three years down the line, if the rate of growth of population has been constant over the years and has been compounding annually?

A) 6000 **B) 6400** C) 7200 D)9600

5. A man invests Rs.5000 for 3 years at 5% p.a. compound interest reckoned yearly. Income tax at the rate of 20% on the interest earned is deducted at the end of each year. Find the amount at the end of the third year.

A) 5624.32 B)5630.50 C)5788.125 D)5627.20

6. The difference between the compound interest and the simple interest on a certain sum at 12% p.a. for two years is Rs.90. What will be the value of the amount at the end of 3 years?

A) 9000 B) 6250 C) 8530.80 **D)8780.80**

7. Vijay invested Rs.50,000 partly at 10% and partly at 15%. His total income after a year was Rs.7000. How much did he invest at the rate of 10%?

A) Rs.40,000 **B)Rs.40,000** C)Rs.12,000 D)Rs.20,000

8. A sum of money invested for a certain number of years at 8% p.a. simple interest grows to Rs.180. The same sum of money invested for the same number of years at 4% p.a. simple interest grows to Rs.120 only. For how many years was the sum invested?

A) 25 years B) 40 years C) 33 years and 4 months D)Cannot be determined

9. How long will it take for a sum of money to grow from Rs.1250 to Rs.10,000, if it is invested at 12.5% p.a simple interest?

A) 8 years B) 64 years C) 72 years **D)56 years**

10. Rs.5887 is divided between Shyam and Ram, such that Shyam's share at the end of 9 years is equal to Ram's share at the end of 11
years, compounded annually at the rate of 5%. Find the share of Shyam.

A) 2088 B) 2000 **C) 3087** D)None of these

11.A bank offers 5% compound interest calculated on half-yearly basis. A customer deposits Rs. 1600 each on 1st January and 1st July of a year. At the end of the year, the amount he would have gained by way of interest is:

A)Rs. 120 **B)Rs. 121** C)Rs. 122 D)Rs. 123

12.The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 4% per annum is Re. 1. The sum (in Rs.) is:

A)625 B)630 C)640 D)650

13.There is 60% increase in an amount in 6 years at simple interest. What will be the compound interest of Rs. 12,000 after 3 years at the same rate?

A)Rs. 2160 B)Rs. 3120 **C)Rs. 3972** D)Rs. 6240

14.What is the difference between the compound interests on Rs. 5000 for 1 years at 4% per annum compounded yearly and half-yearly?

A)Rs.2.04 B)Rs. 3.06 C)Rs. 4.80 D)Rs. 8.30

15.The compound interest on Rs. 30,000 at 7% per annum is Rs. 4347. The period (in years) is:

A)2 B)1 C)3 D)4

16.To find the compound interest on Rs.20000 for 4 years at 10%.p.a. compounded annually and compare it with the simple interest obtained for the same.

a)9282 , 8000 b) 9453,8000 c)8948,8000 d)5675,8000

17. The compound interest on Rs.5000 at 12% p.a. for 2 years compounded annually is ?

18. Find the compound interest for principal amount Rs.4000 for 2 years at 5%p.a. interest compounded annually.

a)230 b)450 c)410 d)520

19. Find the difference in C.I. and S.I. for principal amount Rs.5000, Rate of interest 4%p.a. in 2 years

a)9 b)5 c)8 d)7

20. Find the difference in C.I. and S.I. for principal amount Rs.8000, Rate of interest 5%p.a. in 3 years

a)51 b)61 c)87 d)59

21. Find the compound interest for principal amount Rs.5000 for 1½ years at 5%p.a. interest compounded half-yearly

a)209.8 b)305 c)302.8 d)306.04

22.Find the principal which gives Rs.420 as C.I. at 20% p.a. compounded half yearly for one year

23.Find the compound interest for principal amount Rs.10000 for 2¾ years at 5%p.a. interest compounded yearly.

a)3432.54 b)2363.84 c)2500 d)3290

24. The population of a town is increasing at the rate of 6% p.a. it was 238765 in the year 2018. Find the population in the year 2016 and 2020.

25. The value of a motor cycle 2 years ago was RS.70000. It depreciates at the rate of 4%.p.a. Find its present value

a)53454 b)67545 c)78675 d)64512

26. The price of a laptop depreciates at 4 % p.a. if its present price is Rs.24000, find its price after 3 years

27. The bacteria in a culture grows by 5% in the first hour, decreases by 8% in the second hourand again increases by 10% in the third hour. Find the count of the bacteria at the end of 3 hours, if its initial count was 10000.

a)12324 b)10626 c)21324 d)23432

28. The present height of a tree is 847cm. find its height two years ago if it increases at 10%p.a.

29. Rs.100 doubled in 5 years when compounded annually. How many more years will it take to get another Rs.200 compound interest?

a)10 years b) 5 years c) 7.5 years d) 8 years

30) A certain sum of money doubles itself in 5 years at simple interest. In how many years it becomes seven times?

a)25 b)30 c)35 d)40

PROFIT AND LOSS:

1. A cycle is bought for Rs.900 and sold for Rs.1080, find the gain percent?

A. 16 2/3% **B. 20%** C. 18% D. 25%

2. An article is bought for Rs.675 and sold for Rs.900, find the gain percent?

A. 16 2/3% B. 30% **C. 33 1/3%** D. 33 1/6%

3. An article is bought for Rs.600 and sold for Rs.500, find the loss percent?

A. 16 4/3% B. 100/3% C. 16% **D. 16 2/3%**

4. The cost price of a radio is Rs.1500 and it was sold for Rs.1230, find the loss %?

A. 18% B. 9% C. 15% D. 6%

5. A watch was sold at a loss of 10%. If it was sold for Rs.140 more, there would have been a gain of 4%. What is the cost price?

A. Rs.1000 B. Rs.1140 C. Rs.860 D. Rs.760

6. The sale price sarees listed for Rs.400 after successive discount is 10% and 5% is?

A. Rs.357 B. Rs.340 **C. Rs.342** D. Rs.338

7. The list price of an article is Rs.65. A customer pays Rs.56.16 for it. He was given two successive discounts, one of them being 10%. The other discount is?

A. 3% **B. 4%** C. 5% D. 6%

8. A single discount equivalent to the discount series of 20%, 10% and 5% is?

A. 25% B. 30% **C. 31.6%** D. 33.5%

9. What profit percent is made by selling an article at a certain price, if by selling at 2/3rd of that price, there would be a loss of 20%?

A. 20% B. 25% C. 13 1/30% D. 12%

10. A trader bought a car at 20% discount on its original price. He sold it at a 40% increase on the price he bought it. What percent of profit did he make on the original price?

A. 10% B. 11% **C. 12%** D. 15%

11. A man sells a horse for Rs.800 and loses something, if he had sold it for Rs.980, his gain would have been double the former loss. Find the cost price of the horse?

A. Rs.900 B. Rs.875 C. Rs.850 **D. Rs.860**

12. By selling a house for Rs.45000, it was found that 1/8 of the outlay was gained, what ought the selling to price to have been in order to have lost 5 p.c?

A. Rs.38750 **B. Rs.38000** C. Rs.40000 D. Rs.42000

13. If a man lost 4% by selling oranges at the rate of 12 a rupee at how many a rupee must he sell them to gain 44%?

A. 7 **B. 8** C. 9 D. 10

14. By selling 150 mangoes, a fruit-seller gains the selling price of 30 mangoes. Find the gain percent?

A. 20% **B. 25%** C. 18% D. 30%

15. The C.P of 10 pens is equal to the S.P of 12 pens. Find his gain % or loss%?

A. 16 2/3% profit B. 50/6% profit **C. 16 2/3% loss** D. 100/3% loss

16. An watch was sold at a profit of 20%. What is the selling price of the watch, if its cost price is ₹180?

a) ₹216 b) ₹200 c) ₹160 d) ₹36

17.A person sold an article for ₹20 and earned a profit of 25%. What is the cost price of the article?

a) ₹16 b) ₹14 c) ₹12 d) ₹18

18. An article was sold for ₹13000 at a loss of 35%. What is the cost price of the article?

a) ₹16,000 b) ₹13,700 c) ₹15,000 d) ₹20,000

19. A watch was sold at a loss of 9%. It was observed that if the selling price was ₹420 more, the profit made would have been 5%. What is the actual selling price of the watch?

a) ₹2700 b) ₹2730 c) ₹3270 d) ₹3000

20. Praveen sold an article for ₹1170 at a profit of 30%. What should be the selling price if the desired profit is 40%?

a) ₹1330 b) ₹990 c) ₹1287 d) ₹1260

21. The profit earned by selling a phone for ₹18,000 is the same as the loss incurred after selling it for ₹16,800. What is the cost price of the phone?

a) ₹17,400 b) ₹17,000 c) ₹17,500 d) ₹17,600

22.The profit earned by selling a shirt for ₹1200 is twice the loss incurred when the shirt is

sold for ₹600. What is the cost price of the shirt?
a) ₹800 b) ₹1000 c) ₹900 d) ₹750

23.Vimal sold 16 pens at the cost of 20 pens. What is the profit or loss percentage made by him?
a)4% profit b)4%loss c)25% profit d)25% loss

24.Dennish sold 10 pens at the cost of 12 similar pens. What % profit or loss does he make in this transaction?
a)20% profit b)25% profit c)16.66% loss d)20% loss

25. Vivin sold 21 books at the cost price of 18 books. Find the percentage profit or loss in this transaction?
a)14.28% b)14.28% loss c)16.66% profit d)16.66% loss

26. A shopkeeper bought two ceiling fans for ₹800 each. He sold one fan at a profit of 12% and the other at a loss of 12%. What would be his overall profit or loss in the transaction.
a)No profit No loss b)Loss 1.44% c)profit 1.44% d)None of these

27. A person sold two articles for ₹1200 each; he made a profit of 20% and a loss of 20% on the other. What will be the overall profit or loss in percentage?
a)No profit No loss b)cannot be determined c)profit 4% d)loss 4%

28. A sold an article to B at a profit of 20% and B sold the same article to C at a profit of 10%. If C bought it for ₹2640, how much did A pay for it?
a) ₹2000 b) ₹1500 c) ₹1600 d) ₹1540

29. A dishonest dealer claims to sell his goods at the cost price but uses a weight of 800gm instead of 1 kg. what will be the profit percentage in this transaction?
a)15% b)20% c)25% d)32%

30. If the cost price of an article is ₹300 and the percent markup is 20%. What is the marked price?
a) ₹350 b) ₹360 c) ₹320 d) ₹330

31. If the marked price of an article is ₹450 and markup percentage is 12.5%. what is the cost price?
a) ₹375 b) ₹360 c) ₹425d) ₹400
32. If the marked price of an article is ₹660 and the discount is 10%. Then what is the selling price of the article?
a) ₹559 b)589 c) ₹594 d) ₹578

33. A trader markup the goods by 10% and then gives a discount of 10%. What is the profit or loss percentage?
a)No profit No loss b)1% loss c)1% profit d)5% profit

34. An article was sold for ₹480 after a discount of 20%. What is the marked price?
a) ₹400 b) ₹576 c) ₹600d)cannot be determined

35. A shopkeeper marks his goods in such a way that even after allowing a discount of 20%. He makes a profit of 12%. How much percent above the cost price is the marked price?
a)32% b)8% c)12% d)40%

PERCENTAGE:

1. What percent of 120 are 90?
A. 25% B. 50% **C. 75%** D. 33%

2. If y exceeds x by 20%, then x is less than y by?
A. 16% B. 16 1/3 % **C. 16 2/3 %** D. 16 3/5 %

3. After decreasing 24% in the price of an article costs Rs.912. Find the actual cost of an article?
A. 1400 B. 1300 **C. 1200** D. 1100

4. How much 60% of 50 is greater than 40% of 30?
A. 18 B. 13 C. 15 D. 20

5. How much is 80% of 40 is greater than 4/5 of 25?
A. 4 B. 6 C. 9 **D. 12**

6. 40% of a number is more than 20% of 650 by 190. Find the number?
A. 600 B. 700 **C. 800** D. 900

7. 25% of 30% of 45% is equal to?
A. 0.03375 B. 0.3375 C. 3.375 D. 33.75

8. 60% of a number is added to 120, the result is the same number. Find the number?
A. 300 B. 200 C. 400 D. 500

9. 85% of a number is added to 24, the result is the same number. Find the number?
A. 150 B. 140 C. 130 **D. 160**

10. 40 is subtracted from 60% of a number, the result is 50. Find the number?
A. 150 B. 140 C. 130 D. 110

11. 96% of the population of a village is 23040. The total population of the village is?
A. 32256 **B. 24000** C. 24936 D. 25640

12. If the price has fallen by 10% what percent of its consumption be: increased so that the expenditure may be the same as before?
A. 11% B. 10% **C. 11 1/9 %** D. 9 1/11 %

13. If y exceeds x by 25%, then x is less than y by?
A. 16% B. 16 1/3 % **C. 20%** D. 16 3/5 %

14. The salary of Mr. X is 30% more than that of Mr. Y . Find what percent of Mr. Y's salary is less than Mr. X's?
A. 30% B. 25 1/13 % **C. 23 1/13 %** D. 22 1/13 %

15. In an examination 38% of students fail in English and 61% pass in Hindi and 23% fail in both. Find the actual failure percentage?
A. 46% B. 61% **C. 54%** D. 70%

16. 20 is the 16% of which number?

17. If x% of 600 is 450 then, find the value of x

18.When a number is decreased by 25% it becomes 120. Find the number.

19. What percentage of a day is 10 hours?

20. If 30% of x is 150, then x is ?

21. 2 minutes is what % to an hour?

22. If x% of x = 25 then x =?

23. Sameer spends 20% of his monthly salary on house-rent, 25% on food, 10% on transportation, 15% on education of his children and 18% on house hold expenses. He saves the remaining amount Rs.4800. What is his monthly salary?
a)58000 b)50000 c)48000 d)40000

24. In a school of 1400 students, there are 420 girls. The percentage of boys in the school is?

25. A welfare association has a sports club where 30% of the members play cricket, 28% play volleyboll, 22% play badminton and the rest play indoor games. If 30 member play indoor games.
(i) How many members are there in the sports club?
(ii) How many play cricket, volleyball and badminton?

26. If the price of Orid dhall after 20% increase is ₹96 per kg, find the original price of Orid dhall per kg.

27. Akila scored 80% in an examination. If her score was 576 marks . find the maximum mark
of the examination

28. If 20% of a=b, then b% of 20 is the same as:
a)4% of a b)5% of a c)20% of a d)None of these

29. What is 25% of 30% of 400

30. If the difference between 75% of a number and 60% of the same number is 82.5, then find 20% of the number?

31. Priya decided to donate 30% of her monthly income to an orphanage. But on the day of donation, She changed her mind and donated Rs.4200, which is 70% of what she had earlier decided. What should be the actual donation as per her earlier decision?
a)5000 b)6000 c)8000 d)6500

32. In an election between two candidate the winner secured 58% of the total votes cast and wins by a majority of 2400 votes. How many votes did the loser get?
a)6100 b)6200 c)6300 d)6400

33. At an election involving two candidates, 68 votes were declared invalid. the winning candidates scores 52% and wins by 98 votes. The total number of votes polled is
a) 2518 b) 2450 c) 2382d) None of these

34. In a leadership election between two persons A and B, A wins by a margin of 192 votes. If A gets 58% of the total votes, find the total votes polled.

35. Subtracting 40% of a number from the number, we get the result as 30. The number is?
a)28 b)50 c)52 c)70

36. A’s salary is 25% more than B’s salary. Then what percent is B’s salary less than A’s salary?
a)25% b)20% c)16.66% d)cannot be determined

37. A number is increased by 25% and then decreased by 20%. Find the change in that number?

38. When 60 is subtracted from 60% of a number to give 60, the number is
(a) 60 (b) 100 (c) 150 (d) 200

39. A number is increased by 20% and then again by 20%. By what percent should the increased number be reduced so as to get back the original number?
a) 19 11/31% b)30 5/9% c)40% d)44%

40. A number is increased by 25% and then decreased by 20%. Find the change in that number?

AVERAGE:

1. Find the average of numbers 87, 84, 86, 90, 82, 88, 78.
A. 85 B. 84 C. 83 D. 82

2. The average of 4 terms is 20 and the 1st term is 1/3 of the remaining terms. What will be the first number?
A. 30 **B. 20** C. 60 D. 80

3. The average age of A, B and C was 25 years and that of B and C was 25 years. A's present age is:
A. 30 years **B. 25 years** C. 40 years D. 42 years

4. The average of 7 consecutive numbers is n. If the next two numbers are included, the average will
A. increased by 2 B. remains the same **C. increased by 1** D. increased by 2

5. For 9 innings, Boman has an average of 75 runs. In the tenth inning, he scores 100 runs, thus increasing his average . His new average is
A. Rs. 75 B. Rs. 100 C. Rs. 72 **D. Rs. 77.5**

6. For 9 innings, Roman has an average of 65 runs. In the tenth inning, he scores 200 runs, thus increasing his average . His average increased by
A. 78.5 B. 72 **C. 13.5** D. 77.5

7. In a family of 8, the men eat on average 72kg of food and women eat on an average 50kg of food. The men and women are equal in number. A hungry woman named Neetu joined the family for dinner and the average consumption became 67.How much did Neetu eat (in kgs)?
A. Rs. 115 B. Rs. 80 C. Rs. 90 D. Rs. 85

8. In a hotel, the tariff for every odd dates is Rs.1000 and for even dates is Rs. 2000. If the man paid total of 30000 in all. For how many days did he stay in the hotel given that the first day is 5th date of the month?
A. 50 **B. 20** C. 40 D. 60

9. The average of 5 terms is 50. If the first 4 terms are 45, 42, 119, and 84, what will be the last term?
A. 56 B. -20 **C. -40** D. -50

10. If the average number of 8 terms is given to be 40 and the average of first 6 terms is given to be 35.What is the average of the remaining 2 terms?
A. 30 **B. 55** C. 40 D. 42

11. The average of five results is 46 and that of the first four is 45. Find the fifth result.

12. The average temperature of the first three days is 27 C and that of the next three is 29 C. If the average of the whole week is 28.5 C. What is the temperature of the last day of the week?

13. The average weight of A, B & C is 45 Kg. If the average weight of A and B be 40 Kg and that of B & C be 43 Kg then find the weight of B.

14.The average of 5 positive integers is 436. The average of the first two numbers is 344 and the average of the last two numbers is 554. What is the third number?

15.In a class , there are 32 boys and 28 girls; the average age of boys is 14 years and the avg age of the girls is 13 years . what will be the average age of whole class

16.The average age of a class of 65 boys is 14 years , The average of 20 of them is 14 years, and the another 15 is 12 years. What will be the average age of the remaining boys?
17.The average weight of 20 students in a class is 44 kg and that of the remaining 10 student is 38. Find the average weights of all the students the class.

18. The average of 39 students in a class is 15 years. If the teacher's age is included, the average increases by 3 months. Find the age of the teacher?

19. A batsman makes a score of 87 runs in the 17th inning and thus increases his average by 3. Find his average after 17th inning

20.The average weight of 8 men is increased by 2 kg when one of the men, whose weight is 50 kg is replaced by a new man. Find the weight of the new man is?

21.In a class, there are 20 boys whose average age is decreased by 2 months, when one boy aged 18 years is replaced by a new boy. Find the age of new boy?

22.The average weight of 8 persons in increased by 2.5 kg when one of them whose weight is 56 kg is replaced by a new man. Find the weight of the new man?

23.A cricketer has completed 10 innings and his average is 21.5 runs. How many runs must he Pmake in his next innings so as to raise his average to 24?

24.The average of five number is 42, if one number is excluded the average become 35.The excluded number is?

25.The average age of 8 persons in a committee is increased by 2 years when two men aged 35 years and 45 years are substituted by two women. Find the average age of these two women?

26.The average salary of the entire staff in an office is Rs 120 per month. The average salary of officers is Rs 460 and of non officers is Rs 110. If the number of officers is 15, then find the number of non-officers in the office?

27.Average temperature for a week is noted as 32 degree celcius. But later it was realized reading was taken as 30 degree Celsius instead of 16 degree Celsius for one day . what is the correct average temperature for the week?

28.The average weight of a group of 50 girls was calculated as 58kg. it was later discovered that the weight of one of the girls was read as 45kg where as her actual weight was 65kg. What is the actual average of the group

29. The average age of employees of a company is 40years. If 8 new persons with an average age of 30 years join the company, the average of the entire company becomes 32 years. How many people were there in the company initially?

30.The average marks of a group of 40 students on a test is reduced by 10. when the topper who scored 900 marks is replaced by a new student. How many marks did the new student have?

31. The average of a batsman after 30 innings was 70 runs per innings. If after the 31st innings, his average increased by 2 runs, then what was his score in the 31st innings

32. The average salary per head of the staff members in an office is Rs.5000. The average salaries per head for computer operators are Rs.3000. The rest of the employees get an average salary of Rs.8000. If there are totally 20 employees, how many computer operators are there?

33.Find the average of first 4 multiples of 5.

34. Find the average of first nine multiples of 3.

35.The average of four consecutive ODD numbers is 28.Find the largest number?

36. The sum of 3 consecutive even numbers is 44 more than the average of these numbers. What will be the highest of these numbers

37.If the average of 11 consecutive even numbers is 98, what is the highest number?

RATIOS AND PROPOTIONS:

1.The salaries A, B, C are in the ratio 2 : 3 : 5. If the increments of 15%, 10% and 20% are allowed respectively in their salaries, then what will be new ratio of their salaries?

A.3 : 3 : 10 B.10 : 11 : 20 **C.23 : 33 : 60** D.Cannot be determined

2.If 40% of a number is equal to two-third of another number, what is the ratio of first number to the second number?

A.2 : 5 B.3 : 7 **C.5 : 3** D.7 : 3

3.The fourth proportional to 5, 8, 15 is:

A.18 **B.24** C.19 D.20

4.Two number are in the ratio 3 : 5. If 9 is subtracted from each, the new numbers are in the ratio 12 : 23. The smaller number is:

A.27 **B.33** C.49 D.55

5.In a bag, there are coins of 25 p, 10 p and 5 p in the ratio of 1 : 2 : 3. If there is Rs. 30 in all, how many 5 p coins are there?

A.50 B.100 **C.150** D.200

6.The ratio of the number of boys and girls in a college is 7 : 8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, what will be the new ratio?

A.8 : 9 B.17 : 18 **C.21 : 22** D.Cannot be determined

7.Salaries of Ravi and Sumit are in the ratio 2 : 3. If the salary of each is increased by Rs. 4000, the new ratio becomes 40 : 57. What is Sumit's salary?

A.Rs. 17,000 B.Rs. 20,000 C.Rs. 25,500 **D.Rs. 38,000**

8.If 0.75 : x :: 5 : 8, then x is equal to:

A.1.12 **B.1.2** C.1.25 D.1.30

.

9.The sum of three numbers is 98. If the ratio of the first to second is 2 :3 and that of the second to the third is 5 : 8, then the second number is:

A.20 **B.30** C.48 D.58

10.If Rs. 782 be divided into three parts, proportional to 1/2: 2/3 : 3/4, then the first part is:

A.Rs. 182 B.Rs. 190 C.Rs. 196 **D.Rs. 204**

11.A company ‘A’ sells 53 cm model TV at the price of Rs.7000 whereas another company ‘s’ sells the same model at the price of Rs. 16,800. What is the ratio of their respective selling price?

a)12:5 b)5:12 c)1:2 d)2:1

12.In entrance test the ratio of applicants to successful students was 21:11. If 1176 students appeared in the test, how many got through it?

a)715 b)616 c)605 d)563

13.The ratio of boys and girls studying in a school is 17:18. If the number of boys is 150 less than the number of girls, then what is the total number of girls?

a)2700 b)2800 c)2900 d)2100

14.A profit of Rs.8000 is to be distributed among A, B and C in the proportions of 5:2:3 respectively. What is the difference between the shares of A and B?

a)1800 b)2400 c)3600 d)900

15.A sum of money is divided among A, B, C and D ratio 3:5:8:9 respectively. If the share of D is Rs.1872 more than the share of A, then what is the total amount of money of B & C together?
a)4156 b)4165 c)4056 d)4065

16.Amit , sumit and Vinit divide an amount of Rs.2800 amongst themselves in the ratio of 5:6:3 respectively. If an amount of Rs.200 is added to each of their shares, what will be the new ratio of their shares of the amount?
a)8:9:6 b)6:7:4 c)7:8:5 d)4:5:2

17.The ratio of the number of students studying in a school A, B and C is 5:6:8. If the number of students studying in each of the schools is increased by 30%, 25% and 25% respectively, what will be the new ratio?
a)14:15:20 b)13:15:20 c)13:14:15 d)15:17:19

18.Sita and Gita's ages are in the ratio of 3:4. Gita and lata's ages are in the ratio of 4:7 and Lata and Ram's ages are in the ratio of 7:9. What is the ratio of Sita's and Ram's ages?
a)3:5 b)3:7 c)1:3 d)4:9

19.Ratio of income of A and B is 3:5 respectively and C and B is 9:7 respectively. If the difference between the income of A and C is Rs.4800, what is C's income?
a)2700 b)9000 c)11000 d) None of these

20.A sum of Rs.817 is divided among A, B and C such that A receives 25% more than B and B receives 25% less than C. What is A's share in the amount?
a)228 b)247 c)285 d)304

21.In a bag , there are 25p, 10p, and 5p in the ratio of 1:2:3. If there is ₹30 in all, how many 5p coins are there?
a) 50 b) 100 c) 150 d) 200

22.A bag contains 25p , 50p and 1 rupee coins whose values are in the ratio of 8:4:2 The total values of coins are 840. Then find the total number of coins
a) 220 b)240 c)260 d)280

AGES:

1.The total age of A and B is 12 years more than the total age of B and C. C is how many years younger than A ?

A) 12 B) 13 C) 14 D) 15

2.The sum of the present ages of a father and his son is 60 years. five years ago, father's age was four times the age of the son. so now the son's age will be:

A) 5 B) 10 **C) 15** D) 20

3.The age of a man is 4 times of his son. Five years ago, the man was nine times old as his son was at that time. The present age of man is?

A)53 **B)32** C)30 D)45

4.The average age of a group of 10 students is 15 years. When 5 more students join the group, the average age increase by 1 year. The average age of the new students is?

A)18 B)20 C)21 D)22

5."I am five times as old as you were, when I was as old as you are", said a man to his son. Find out their present ages, if the sum of their ages is 64 years ?

A) Father = 50; Son =14 **B) Father = 40; Son =24** C) Father = 60; Son =4 D) Father = 48; Son =16

6. Father is four times the age of his daughter. If after 5 years, he would be threee times of daughter's age, then further after 5 years, how many times he would be of his daughter's age?
A. 1.5 times B. 2 times **C. 2.5 times** D. 3 times

7. What is Aman's present age, if after 20 years his age will be 10 times his age 10 years back?
A. 6.2 years B. 7.7 years **C. 13.3 years** D. 10 years

8.. Nisha is 15 years elder to Romi. If 5 years ago, Nisha was 3 times as old as Romi, then find Nisha's present age.
A. 32.5 years **B. 27.5 years** C. 25 years D. 24.9 years

9. One year ago, the ratio of Honey and Piyush ages was 2: 3 respectively. After five years from now, this ratio becomes 4: 5. How old is Piyush now?
A. 5 years B. 25 years **C. 10 years** D. 15 years

10. Ten years ago, the age of mother was three times the age of her son. After ten years, mother's age will be twice that of his son. Find the ratio of their present ages.
A. 11 : 7 B. 9 : 5 C. 7 : 4 **D. 7 : 3**

11.The present age of father is five times the age of the son. Five years ago, the age of father was ten times the age of his son at that time. How old is father at present?
1) 45 years 2) 40 years 3) 48 years 4) 49 years 5) None of these

12.Meeta is four years older than Sunitha. After eight years, the sum of their ages will be three times that of their present ages. What is the age of Meeta?
1)10 yrs 2) 8 yrs 3) 6 yrs 4) Data inadequate 5) None of these

13.The difference between the present ages of Praveen and Joyal is 4 years. The ratio oftheir ages after 5 years will be 9: 8. What is Praveen's age at present?
1) 32 years 2) 30 years 3) 24 years 4) 28 years 5) None of these

14.The ratio of the age of father and son at present is 5: 1. After 5 years, the sum of theirages is 46. What is the age of father at present?
1) 35 years 2) 25 years 3) 40 years 4) 30 Years 5) None of these

15.The difference in the present ages of Jhadhav and Vinay is 24 years and the ratio of their ages is 3: 7. What is the sum of their present ages?
1)48 2)60 3) 66 4) Cannot be determined 5) None of these

16.Ranjan's and Anurag's ages are in the ratio 4: 5. Four years hence, their age ratio will become 5: 6. What is Anurag's present age?
1) 20 years 2) 16 years 3) 24 years 4) Data insufficient 5) None

17.One year ago, the ratio between the ages of Thaara and Aadhi was 3 : 4. One year hence, the ratio will be 4 : 5. What is the sum of their present ages in years?
a) 14 b) 16 c) 18 d) 12 e) None of these

18.The ages of A and B are presently in the ratio of 5:6. Six years hence this ratio will become 6:7. What was B's age 5 years ago?
1)25 years 2) 30 years 3) 36 years 4) 31 years 5) None of these

19.If A is as much as elder to B than he is younger to C and the sum of the ages of B and C is 48 years. What is the age of A?
a) 28 b) 24 c) 25 d) 26 e) None of these

20.A is 3 years older than B, who is twice as old as C. If the total ages of A, B and C is 38, what is the age of C?

a) 10 b) 14 c) 9 d) 7 e) None of these

21.After 5 years the average age of a daughter and her mother will become 29.5 year. Iftoday the ratio of their ages is 2: 5. What is the present age of daughter?
1) Cannot be determined 2) 25 3) 21 4) 14 5) None of these

22.Four years ago the average of son's and father's age was 27.5. Today the ratio of their age is 5: 16. What is son's present age?
1)16 2) 11 3) 14 4) Cannot be determined 5) None of these

TIME AND WORK

1. Vijay can do a piece of work in 24 days. Rakesh can do the same work in 30 days and Vinod in 40 days. Vijay and Vinod worked for 4 days and handed it to Rakesh. Rakesh worked for some days and handed it again to Vijay and Vinod 6 days before completing the work. For how many days did Rakesh work?

A. 20 days **B.10 days** C.5 days D.15 days

2. Arnab is twice as fast as Bhanu, and Bhanu is one-third as fast as Chandu. If together they can complete work in 30 days, in how many days can Arnab, Bhanu and Chandu do the work respectively?

A. 50, 180, 60 B. 70, 180, 60 **C.90, 180, 60** D. 80, 180, 60

3. A contractor hire Amitabh Arora to complete the work and Amitabh can do the work in 25 days. Amitabh worked for 5 days and after that Bindu singh completed it in 20 days. In how many days will Amitabh and Bindu together finish the work?

A.(25/2) days B.(25/4) days C.(25/6) days D.(25/8) days

4. It takes 6 workers a total of 10 hours to assemble a computer, with each working at the same rate. If six workers start at 9.00 am, and one worker per hour is added beginning at 3.00 pm, at what time will the computer assembled?

A.5.00 PM B.4.00 PM **C.6.00 PM** D.7.00 PM

5. A and B undertake a project worth Rs. 54000 . A alone can do the work in 10 days. They work together for 3 days. After 3 days, B works alone for 3 days and A completes the remaining work in 3 more days.What is the share of B in the earnings?

A.Rs. 21600 B.Rs. 31600 C.Rs. 41600 D.Rs. 51600

6. Radhe does 70% of some work in 15 days. Later, with Shyam's help, she completes the remaining work in 4 days. In how many days can Shyam alone complete the entire work?

A.33.3 days B.38.3 days **C.35.3 days** D. 45.3 days

7. The hourly wages of a mason have increased by 25%. Since the increase, the number of hours he works daily has reduced by 16%. If he was earning Rs. 120 per day before the increase, how much (in Rs.) is he earning now?

A.126.5 B.127 **C,126** D.125

8. Four examiners can examine a certain number of papers in 10 days by working for 5 hours a day. For how many hours in a day can 2 examiners must work in order to examine twice the number of papers in 20 days?
A.50 hours B.30 hours C.20 hours **D.10 hours**

9. If a father or his two daughters or his three kids can finish a work in 88 days, then how many days will a man, a daughter and a kid together take to finish the same work?

A.42 days B.44 days C.46 days **D.48 days**

10. Pipe A is kept open throughout the time while Pipe B is open for first 8 minutes. After two minutes of closing of pipe B, pipe C is opened and kept open till the tank is full. Pipe D is opened for last 15 minutes. Each pipe fill an equal share of the tank. Pipe C and Pipe D can fill the tank together is 24 minutes. In how much time pipe A alone can fill the tank of same capacity.
A. 50 minutes B.60 minutes C. 75 minutes **D.80 minutes**

11. 15 men can type 3240 pages in 6 days working 2 hours per day. How many men would be required to type 5400 pages working 4 hours per day for 3 days?

1) 10 2) 16 3) 12 4) 25 5) None of these

12. 4 men work 12 hours daily to complete a work in 9 days. If 16 men work 2 hours a day, in how many days will the work be completed?

1) 4.5 days 2) 18 days 3) 13.5 days 4) 27 days 5) None of these

13. If 15 boys can finish a piece of work in 12 days of 8 hours a day, then how long will it take for 16 boys to do a piece of work 4/6 as great, working 9 hours a day?

1) 3.33 days 2) 6.66 days 3) 10 days 4)15 days 5) None of these

14. A, B and C can finish a piece of work in 10, 15 and 30 days respectively. How many days will be required if A, B and C work together to finish the given work?

1) 5 2) 6 3) 7 4) 8 5) None of these

15. B and C together can complete a work in 8 days, A and B together can complete the same work in 12 days, and A and C together can complete the same work in 16 days. In how many days can A, B and C together completes the work?

1)3 9/20 days 2)7 5/13 days 3)6 4/12 days 4)None of these

16. 2 men can complete a work in 6 days. 8 women can do it in 12 days. If 6 men and 8 women are employed together, how many days will be required to finish the work?

1) 8 days 2) 6 days 3) 12 days 4) 9 days 5) None of these

17. A work is started by 15 people. After 5 days, 5 more people accompanied them to finish the work in next 10 days. How many people should have started the work to finish it in 11 days?

1) 24 2)22 3)20 4)25 5) None of these

18. 24 men can complete a work in 16 days. The same work can be completed by 8 women in 72 days, whereas 24 children take 32 days to complete it. If 10 men, 15 women and 24 children work together, in how many days can the work be completed?

1) 18 2)8 3)22 4) 12 5) None of these

19. 5 men and 6 boys finish a piece of work in 4 days; 4 men and 3 boys in 6 days. In how many days would 3 men and 6 boys finish the same work?

1) 5 days 2) 36/7 days 3)4 days 4) 29/7 days 5) None of these

20. 6 typists can do a piece of work in 8 hours. If 3 more typists whose working speed is double the earlier typists join together, then the work will be finished in how many hours?

1) 6hours 2) 5hours 3) 4hours 4) Data inadequate 5) None of these

21. A, Band C together can do a piece of work in 10 days; B and C together work thrice as much as A and A and B together work 4 times as much as C. In how many days can each do it alone?

1) 45, 22, 52 2) 40, 18, 50 3) 40, 200/11, 50 4) 30, 200/11, 5 5) None of these

22. X alone can complete a piece of work in 12 days and Y alone can complete the same work in 24 days. If they work on alternate days with X working on first day, then in how many days will the work be completed?

1) 15 2) 16 3) 4 4) 8 5) None of these

23. A can do a piece of work in 15 days and B in 20 days. They finished the work with the assistance of C in 5 days and got ` 45 as their wages. What is the share of each person?

1) 22.5, 12, 10.5H 2) 10.5,12,22.5 3) 15, 11.25, 18.75 4)12.5,13,19.5 5)None of these

24. 50 people consume 350 kg of rice in 30 days. In how many days will 35 people consume 50 kg of rice?
1) 2 days 2) 3days 3) 56 days 4) 7 days 5) None of these

25. X and Y can do a piece of work in 20 days and 12 days respectively. X started the work alone and then after 4 days Y joined him till the completion of the work. How long did the work last
1) 6 days 2) 10 days 3) 15 days 4) 20 days 5) None of these

TIME AND DISTANCE:

1.A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?

A.3.6 **B.7.2** C.8.4 D.10

2.An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in 1 hours, it must travel at a speed of:

A.300 kmph B.360 kmph C.600 kmph **D.720 kmph**

.

3.If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more. The actual distance travelled by him is:

A.50 km B.56 km C.70 km D.80 km

4.A train can travel 50% faster than a car. Both start from point A at the same time and reach point B 75 kms away from A at the same time. On the way, however, the train lost about 12.5 minutes while stopping at the stations. The speed of the car is:

A.100 kmph B.110 kmph **C.120 kmph** D.130 kmph

5.Excluding stoppages, the speed of a bus is 54 kmph and including stoppages, it is 45 kmph. For how many minutes does the bus stop per hour?

A.9 **B.10** C.12 D.20

6.In covering a distance of 30 km, Abhay takes 2 hours more than Sameer. If Abhay doubles his speed, then he would take 1 hour less than Sameer. Abhay's speed is:

A.5 kmph B.6 kmph C.6.25 kmph D.7.5 kmph

7.Robert is travelling on his cycle and has calculated to reach point A at 2 P.M. if he travels at 10 kmph, he will reach there at 12 noon if he travels at 15 kmph. At what speed must he travel to reach A at 1 P.M.?

A.8 kmph B.11 kmph **C.12 kmph** D.14 kmph

8.It takes eight hours for a 600 km journey, if 120 km is done by train and the rest by car. It takes 20 minutes more, if 200 km is done by train and the rest by car. The ratio of the speed of the train to that of the cars is:

A.2 : 3 B.3 : 2 **C.3 : 4** D.4 : 3

.

9.A farmer travelled a distance of 61 km in 9 hours. He travelled partly on foot @ 4 km/hr and partly on bicycle @ 9 km/hr. The distance travelled on foot is:

A.14 km B.15 km **C.16 km** D.17 km

10.Uchit, on his bike, completes a journey in 47 hours. If it is known that he travels at 25 kmph for half the distance and at 22 kmph for the other half, then find the distance traveled.
a.1100 km **b.1001 km** c.1101 km d.1000 km

11.In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. The duration of the flight is:

A.1 hour B.2 hours C.3 hours D.4 hours

12.A man complete a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey in km.

A.220 km **B.224 km** C.230 km D.234 km

13.The ratio between the speeds of two trains is 7 : 8. If the second train runs 400 km in 4 hours, then the speed of the first train is:

A.70 km/hr B.75 km/hr C.84 km/hr **D.87.5 km/hr**

14.A man on tour travels first 160 km at 64 km/hr and the next 160 km at 80 km/hr. The average speed for the first 320 km of the tour is:

A.35.55 km/hr B.36 km/hr **C.71.11 km/hr** D.71 km/hr

15.A car travelling with of its actual speed covers 42 km in 1 hr 40 min 48 sec. Find the actual speed of the car.

A .20km/hr B.25 km/hr C.30 km/hr **D.35 km/hr**

16.A car covers a distance of 816 km in 12 hours. What is the speed of the car?
(a) 60kmph (b) 62kmph (c) 64kmph (d) cannot be determined (e) None of these

17.A bus covers a distance of 2,924 km in 43 hours. What is the speed of the bus?
(a) 72 kmph (b) 60kmph (c) 68kmph (d) Cannot be determined (e) None of these

18.A train covers a distance of 1560 km in 26 hours. What is the speed of the train?
(a) 72 km/hr (b) 62 km/hr (c) 68 km/hr (d) Cannot be determined (e) None of these

19. A bus travels at the speed of 49 kmph and reaches its destination in 7 hours. What is the distance covered by the bus?
(a) 343km (b) 283km (c) 353km (d) 245km (e) 340km

20..A man can complete a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey in km.
a) 225 Km b) 222 Km c) 224 Km d) 248 Km

21..In covering a distance of 30 km, Abhay takes 2 hours more than sameer. If abhay doubles his speed, then he would take 1 hour less than sameer. Abhay speed is..
a) 5 kmph b) 6 kmph c) 10 kmph d) 12 kmph

22..A cyclist travels a certain distance in 6 hours at a uniform speed. In the return journey, he increases his speed by 2km per hour and covers the same distance in 5 hours. What was his speed initially?
a)12kmph b)6 kmph c)10kmph d)5kmph

23..Two trains starts at the same time from A and B and proceed towards B and A at 36 kmph and 42 kmph respectively. When they meet, it is found that one train has moved 48km more than the other. What is the distance between A and B?
a)80 b)548 c)624 d)58

24..A thief spots a policeman 100m away and takes to his heels. If the policeman gives a chase immediately. Then how far would the thief have run before he is caught? The speed of the policeman and thief are 10kmph and 8kmph respectively
a)110m b)340m c)400m d)220m

25..A car travels a distance of 45 km at the speed of 15 kmph. It covers the next 50 km of its journey at the speed of 25 kmph and the last 25 km of its journey at the speed of 10 kmph. What is the average speed of the car?
(a) 40 kmph (b) 24 kmph (c) 15 kmph (d) 18 kmph (e) None of these

26..Praveen travelled from city A to city B at the speed of 60 kmph and back from city B to city A , via the same route at the speed of 40 kmph. Find his average speed for the round trip?
a)48kmph b) 50kmph c)36kmph d)40 kmph d)None of these

27..A student walks to school at the rate of 2.5 kmph and reaches 6 min too late. Next day he increases his speed by 2 Kmph and then reaches school 10 min early. What is the distance of the school from his home?
a) 1.5 km b) 3 km c) 6km d)12 km 5)None of these

28..A train running between two stations A and B arrives at its destination 10 minutes late when its speed is 50 km/h and 50 minutes late when its speed is 30km/h. What is the distance between the stations A and B?
(a) 40 km (b) 50 km (c) 60 km (d) 70 km (e) None of these

29..Excluding stoppages the speed of the bus is 45km/h and including stoppages the speed of the bus is 36 km/h. For how many minutes does the bus stop per hour?
(a) 12 min (b) 15 min (c) 20 min (d) 25 min (e) None of these

30.Nilesh goes to school from his village at the speed of 2km/hr & return back at the speed of 4 km/hr, if he takes 6 hours in all, then what is the distance between the village and the school?
(a) 6km (b) 5km (c) 4km (d) Cannot be determined (e) None of these

TRAINS:

1.A train travelling at a speed of 75 mph enters a tunnel 31/2 miles long. The train is 1/4 mile long. How long does it take for the train to pass through the tunnel from the moment the front enters to the moment the rear emerges?

A.2.5 min **B.3 min** C.3.2 min D.3.5 min

2.A train 800 metres long is running at a speed of 78 km/hr. If it crosses a tunnel in 1 minute, then the length of the tunnel (in meters) is:

A.130 B.360 **C.50** D.540

3.A 300 metre long train crosses a platform in 39 seconds while it crosses a signal pole in 18 seconds. What is the length of the platform?

A.320 m **B.350 m** C.650 m D.Data inadequate

4.A train speeds past a pole in 15 seconds and a platform 100 m long in 25 seconds. Its length is:

A.50 m **B.150 m** C.200 m D.Data inadequate

5.A train moves past a telegraph post and a bridge 264 m long in 8 seconds and 20 seconds respectively. What is the speed of the train?

A.69.5 km/hr B.70 km/hr C.79 km/hr **D.79.2 km/hr**

6.Two trains are travelling towards each other at speeds 36 kmph and 54 kmph. In 3 hours they together will cover a total of:
a.75 km **b.100 km** c.54 km d.36 km

7.Two trains are travelling towards each other at speed 36 kmph and 54 kmph, in 3 hours they together can cover:
a.100km **b.270km** c.360km d.54km

8.How many seconds will a 500 metre long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr?

A.25 **B.30** C.40 D.45

9.Two goods train each 500 m long, are running in opposite directions on parallel tracks. Their speeds are 45 km/hr and 30 km/hr respectively. Find the time taken by the slower train to pass the driver of the faster one.

A.12 sec **B.24 sec** C.48 sec D.60 sec

10.Two trains are running in opposite directions with the same speed. If the length of each train is 120 metres and they cross each other in 12 seconds, then the speed of each train (in km/hr) is:

A.10 B.18 **C.36** D.72

11.If the speed of the train is 54 kmph. What is the length of the platform?

a) 120 m b) 300 m c) 240 m d) None of these

12.A train moves past a telegraph post and a bridge 264 m long in 8 sec and 20 sec respectively. What is the speed of the train?

a) 69.5 kmph b) 70 kmph c) 79 kmph d) 79.2 kmph

13.A train 100m long is running at the speed of 30kmph. Find the time taken by it to pass a man standing near the railway line?
a)15sec b)25sec c)12sec d)10sec

14.How long does a train 110 meters long running at the speed of 72kmph take to cross a bridge 132metres in length?

a)12.1sec b)12.2sec c)12.3sec d)12.4sec

15.Two trains 200m and 150m long are running on parallel rails at the rate of 40 kmph and 45 kmph respectively . In how much time will they cross each other, if they are running in same direction?

a)260sec b)240sec c)252sec d)270sec

PARTNERSHIP:

1.A, B and C started a business each investing Rs.10000. After 4 month A withdraws Rs.3000, B withdraws Rs.4000, C invest Rs.3000 more At the end of the years, a total profit was Rs.32800. Find the share of C.

A. Rs. 10000 **B. Rs. 14400** C. Rs. 17600 D. Rs. 19200

2.Shakeel started a software business by investing Rs. 20,000. After six months, Neel joined him with a capital of Rs. 30,000. After 3 years, they earned a profit of Rs. 13,950. What was Shakeel's share in the profit?

A. Rs. 6200 B. Rs. 6400 C. Rs. 4200 D. .Rs. 7750

3.A, B and C started a business by investing Rs. 250000 Rs. 300000 and Rs.350000 respectively.Find the share of B, out of an annual profit of Rs.187200.

A. Rs. 65400 **B. Rs. 62400** C. Rs. 63400 D. Rs. 66200

4.Abu and Salim started a partnership business investing some amount of money in the ratio of 4 : 6 . Shakeel joined them after six months with an amount equal to that of Salim . In what proportion should the profit at the end of one year be distributed among Abu, Salim and Shakeel ?

A. 5:3:4 B. 4:6:2 C. 5:3:2 **D. 4:6:3** E. None of These

5.Munna received Rs. 3000 as his share out of the total profit of Rs. 4500 which he and Raju earned at the end of one year. If Munna invested Rs.60000 for 6 months, whereas Raju invested his amount for the whole year, what was the amount invested by Raju?

A. Rs. 12000 **B. Rs. 15000** C. Rs. 18000 D. Rs. 50000

6.Vimla started a business investing Rs. 90000. After 3 months, Pulkit joined him with a capital of Rs. 120000. After another 6 months, Alia joined them with a capital of Rs. 180000. At the end of the year, they made a profit of Rs. 40000. What would be Alia's share in it?
A. Rs 7000 B. Rs 6000 C. Rs 5000 **D. Rs 8000**

7.In business, Anuj and Chirag invested amounts in the ratio 4:2, whereas the ratio between amounts invested by Anuj and Bimal was 6:4, If Rs 314600 was their profit, how much amount did Bimal receive?

A. Rs 88000 B. Rs 98000 C. Rs 94400 **D. Rs 96800**

8.Clark got Rs.3000 as his share out of a total profit of Rs.4500 which he and Chintu earned at the end of one year. If Clark invested Rs.10000 for 6 months, where as Chintu invested his amount for the whole year, what was the amount invested by Chintu ?
A. Rs. 1000 B. Rs. 5000 C. Rs. 2200 **D. Rs. 2500** E. None of These

9.Rs.1400 is divided among Amla,Bimla and Simla so that Amla receives half as much as Bimla and Bimla half as much as Simla. Then Simla's share is:

A. Rs. 200 B. Rs. 300 **C. Rs. 800** D. Rs. 600

10.A, B, C subscribe Rs. 50,000 for a business. A subscribes Rs. 4000 more than B and B Rs. 5000 more than C. Out of a total profit of Rs. 35,000, A receives:

A.Rs. 8400 B. Rs. 11,900 C. Rs. 13,600 **D. Rs. 14,700**

11.A person starts a business with Rs.45,000. Later his friend joined him with Rs.20,000 after 4 months. What is the share of A, if their annual profit is Rs.1,40,000?

a) Rs.10,8000 b) Rs.13,8000 c) Rs.32,000 d) Rs.46,000 e) None of these

12.A, B and C enters into a partnership investing Rs.2500, Rs.3500 and Rs.4000. Find their respective shares in the annual profit of Rs.14,700?

a) Rs.3500,Rs.6500,Rs.1500 b) Rs.3500,Rs.4900,Rs.6500 c) Rs.3675,Rs.5145,Rs.5880
d) Rs.3500,Rs.6300,Rs.4900 e) None of these

13.Sanjay started a business by investing Rs.40,000. After 6 months Nirmal joined him with a capital of Rs.60,000. After 3 years, they earned a profit of Rs.27,900, what was sanjay's share in the profit?

a) Rs.12400 b) Rs.13000 c) Rs.13200 d) Rs.15000 e) None of these

14.Yuvan started a business investing Rs.45,000. After 3 months, Pranav joined him with a capital of Rs.60,000. After another 3 months, Ayan joined them with a capital of Rs.90,000. At the end of the year, they made a profit of Rs.20,000. What would be the share of Ayan?

a) Rs.7666.66 b) Rs.6666.66 c) Rs.5666.66 d) Rs.4666.66
e) None of these

15.Janani started a business investing Rs.40,000. After 6 months, Pooja joined her with a capital of 55,000. What is the difference in their respective shares if the annual profit is Rs.1,89,000?

a) Rs.24,000 b) Rs.35,000 c) Rs.20,000 d) Rs.19,000 e) None of these

16.A, B and C rent a system. A types 10 programs in 7 days, B types 12 programs in 5 days and C types 15 programs in 3 days. If the rent of the system is Rs.175000, What is the difference between the rental shares of B and C?
a) Rs.64,000 b) Rs.51,000 c) Rs.15,000 d) Rs.10,000 e) None of these

17.A and B started a business investing Rs.16,000 and Rs.12,000 respectively. After 3 months, A withdraws Rs.5000 while B invested Rs.5000 more. After 3 more months, C joins the business with a capital of Rs.21,000. The share of B exceeds that of C by, out of a total profit of Rs.26400 after one year by?

a) Rs.2400 b) Rs.3600 c) Rs.3000 d) Rs.4800 e) None of these

18.Three friends A, B and C enters into a partnership and their shares are in the ratio 1/2:1/3:1/4 . After 2 months, A withdraws half of his capital and after 12 months, a profit of Rs.1050 is obtained. What is 25% of the share of B?

a) Rs.150 b) Rs.450 c) Rs.200 d) Rs.400 e) None of these

19.A, B and C started a business by investing Rs.42,000, Rs.30,000 and Rs.28,000 respectively. After 4 months, A withdraws Rs.12,000, B withdraws Rs.6000 and C withdraws Rs.8000. If after 10 months, a total profit earned is Rs.46420. What is 20% of the share of C?

a) Rs.2563 b) Rs.2552 c) Rs.2673 d) Rs.2555 e) None of these

20.Sreeja started a business with Rs.45000. Later, Madhu joined her with Rs.54000. When did Madhu join if the profits at the end of the year were divided in the ratio of 2 : 1?

a) 4th month b) 5th month c) 7th month d) 6th month e) None of these

21.Anitha and suji are partners in a business. Anitha contributes 1/4 of her capital for 15 months and suji received 2/3 of the profit. For how long suji's money was invested in the business?

a) 1 year b) 6 months c) 10 months d) 9 months e) None of these

22.Ajay and Arjun enters into a partnership with their respective capitals in the ratio 5 : 6. At the end of 8 months, Ajay withdraws his capital. If they receive their shares of profit in the ratio 5 : 9, find how long Arjun's capital was invested?

a) 10 months b) 12 months c) 14 months d) 15 months e) None of these

PERMUTATION & COMBINATION:

1. In how many ways can live boys and three girls sit in a row such that all boys sit together?

A. 4800 B. 5760 **C. 2880** D. 15000 E. 1440

2. The number of sequences in which 7 players can throw a ball, so that the youngest player may not be the last is -.

A. 4000 B. 2160 **C. 4320** D. 5300 E. 4160

3. A delegation of 5 members has to be formed from 3 ladies and 5 gentlemen. In how many ways the delegation can be formed, if 2 particular ladies are always included in the delegation?

A. 20 B. 54 C. 42 D. 60 E. 40

4. The number of new words that can be formed by rearranging the letters of the word 'ALIVE' is -.

A. 24 B. 23 **C. 119** D. 120 E. None of these

5. Find the number of ways of arranging the letters of the word "MATERIAL" such that all the vowels in the word are to come together?

A. 720 **B. 1440** C. 1860 D. 2160 E. None of these

6. A group consists of 4 men, 6 women and 5 children. In how many ways can 2 men , 3 women and 1 child selected from the given group?

A. 300 **B. 600** C. 750D. 900E. None of these

7. A group consists of 4 men, 6 women and 5 children. In how many ways can 3 men, 2 women and 3 children selected from the given group?

A. 300 B. 450 **C. 600** D. 750 E. None of these

8. Six points are marked on a straight line and five points are marked on another line which is parallel to the first line. How many straight lines, including the first two, can be formed with these points?

A. 29 B. 33 C. 55 D. 30 **E. 32**

9. Three dice (each having six faces with each face having one number from 1 or 6) are ralled. What is the number of possible outcomes such that atleast one dice shows the number 2?

A. 36 B. 81 **C. 91** D. 116

10. Three flags each of different colours are available for a military exercise, Using these flags different codes can be generated by waving

I. Single flag of different colours

II. Any two flags in a different sequence of colours.

III. three flags in a different sequence of colours.

The maximum number of codes that can be generated is.

A. 6 B. 9 **C. 15** D. 18

SYLLOGISM:

1.No door is dog.
All the dogs are cats.

1) No door is cat. 2) No cat is door. 3) Some cats are dogs 4) All the cats are dogs.

A.Only (2) and (4) **B.Only (1) and (3)** C.Only (3) and (4) D.Only (3)

2.Statements: Some ships are boats. All boats are submarines. Some submarines are yatches.
Conclusion:
I. Some yatches are boats.II. Some submarines are boats.
III. Some submarines are ships.IV. Some yatches are ships
A. All follow **B. Only II and III follow** C. Only III follows 4. Only IV follows

3.Statements: All Carrots are birds. Some telephones are Carrots. All bedsheets are telephone.
Conclusion:
I. All bedsheet are birds II. Some bedsheet are birds
III. Some birds are telephone IV. All telephone are birds

A. Only I follows B. Only II follows C. Only I and III follow **D. Only III follows**

4.Statements: Most CPUs are keyboards. No keyboard is a Mouse. All Mouses are CPU.
Conclusion:
I. Some keyboards are CPU II. All CPU's are Mouse
III. No Mouse is a keyboardIV. Some Mouse are keyboard

A. Only I follows B. Only II and III follow **C. Only I and III follow** D. Only II follows
5.Statements: Samosas are Jalebi. All Jalebis are Tikki. All Tikkis are Barfi
Conclusion:
I. All Jalebis are BarfiII. All Tikkis are Samosas
III. All Samosas are BarfiIV. All Barfi are Jalebi

A. Only I and II follow **B. Only I and III follow** C. Only II and III follow D. All follow

6.Statements: Some eyes are ears. Some ears are lungs. All lungs are hands
Conclusion:
I. Some hands are eyes.II. Some hands are ears
III. Some lungs are eyesIV. No hand is eye

A. None follow B. Only IV follows **C. Only II follows** D. Only III follows

7.Statements: All liquids are solids. Some solids are gases. All gases are clouds
Conclusion:
I. Some clouds are solidsII. Some clouds are liquids
III. Some gases are liquidsIV. Some solids are clouds

A. None follows B. Only I and II follow C. Only III and IV follow **D. Only I and IV follow**

8.Statements: All Gold are Platinum. No Platinum is silver. Some Diamonds are silver.
Conclusion:
I. Some Diamonds are GoldII. Some Diamonds are Platinum
III. Some Gold are SilverIV. No Silver is Gold

A. Only I follows B. Only III follows **C. Only IV follows** D. Only II and IV follow

9.Statements: Some messages are whatsapp. All Hikes are whatsapp. All whatsapp are facebook.
Conclusion:
I. Some facebook are messagesII. All hikes are facebook
III. Some messages are hikesIV. Some message are facebook

A. All follow B. Only I, II and III follow **C. Only I, II and IV follow** D. Only III and IV follow

10.Statements: No watch is cycle. No cycle is Motorbike. Some auto are motorbike
Conclusion:
I. No Motorbike is watchII. No motor bike is cycle
III. Some cycles are watchesIV. All Motorbikes are watches

A. None follows B. Only I follows C. Only I and III follow **D. None of these**

DIRECTION:

1.Ajay walks 24 km towards East and turns to right hand side and takes a drive of another 10 km. He then turning to his right (drives towards West) another 10 km. He then turns to his left & walks another 8 km. After that, he turns to his right & travels 14 km. How far is he from his initial point & in which direction?

A. 20 km East **B. 18 km south** C. 16 km West D. 10 km South E. None of these

2.Raju walks 80 ms towards south. Then, turns to his right & starts walking straight till he completes another 80 ms. Then, again turning to his left he walks for 60 metres. He then turns to his left & walks for 80 metres. How far is he from his initial position?
A. 100 metres B. 60 metres C. 20 metres D. 120 metres **E. 140 meters**

3.Varun drove his car for 80 kms due North. Then he turned left and drove for 100 kms. Again he turned left & drove yet another 80 kms. Again he turned left and drove his car 120 kms. How far do you think he actually drove his car from the initial position?

A. 20 kms B. 100 kms C. 60 kms D. None of these E. Can't Say

4.Sandeep walks 60m to the east, then he turns left and walks for 50 m, then turns right and went 70 m and then turns right again and went 50 m. How far was Sandeep from the starting point?

A. 90 mB. 70 m C. 50 m **D. 130 m** E. 100 m

5.One morning after sunrise, Amrit was standing facing a pole. The shadow of the pole was forming on the left side. Which direction was Amrit facing?

A. East B. West **C. North** D. South E. None of these

6.One evening just before sunset two friends Sanju and Manju were talking to each other face to face. If Manju's shadow was exactly to her left side, which direction was Sanju facing?
A. North B. South C. West D. Data inadequate E. None of these

7.In the evening, Ashmita started walking positioning his back towards the sun. After sometime, she turned left, then turned right and then towards the left again. In which direction is she going now?

A. North B. East C. West D. South E. None of these

8.I drove 50 km towards east from a city 'S' and then turned right and drove another 30 km. Now I turned to my left & drove another 30 km. Finally I turned my right & drove 30 km to reach a city 'F'. Find the shortest straight distance between cities S and F.
A. 20 km B. 25 km C. 30 km D. 40 km **E. 100 km**

9.Ahmedabad is to the southwest of Bangalore, Chennai is to the east of Ahmedabad and southeast of Bangalore and Delhi is to the north of Chennai in line with Ahmedabad-Bangal;ore. In which direction of Bangalore is Delhi located?

A. SouthB. Southwest C. North **D. Northeast** E. East

10.Ajay drives 3 kilometres North. Then he turns right and drives 4 kilo metres. Now he turns right and drives 5 kilometres. Now turning left, he drives 2 kilometres. Again, he turns left and moves 2 kilometres. Finally turning left he again walks 2 kilometres. In which direction & how far is he from his starting position?

A. 1.5 kilometres East **B. 4 kilometres East** C. 1.5 kilometres West D. 4.5 metres West
E. None of these
Sol: Option B

PROBABLITY:

1. The probability that a number selected at random from the first 50 natural numbers is a composite number is -.

A. 21/25 **B. 17/25** C. 4/25 D. 8/25 E. 9/25

2. A coin is tossed live times. What is the probability that there is at the least one tail?

A. 31/32 B. 1/16 C. ½ D. 1/32 E. None of thes3e

3. If a number is chosen at random from the set {1, 2, 3, ..., 100}, then the probability that the chosen number is a perfect cube is -.

A. 1/25 B. ½ C. 4/13 D. 1/10 E. 9/13

4. Out of first 20 natural numbers, one number is selected at random. The probability that it is either an even number or a prime number is -.

A. 1/2 B. 16/19 C. 4/5 **D. 17/20** E. 3/5

5. If two dice are thrown together, the probability of getting an even number on one die and an odd number on the other is -.

A. 1/4 **B. 1/2** C. 3/4 D. 3/5 E. None of these

6. A box contains nine bulbs out of which 4 are defective. If four bulbs are chosen at random, find the probability that exactly three bulbs are good.

A. 20/31 **B. 20/63** C. 5/31 D. 6/31 E. 26/31

7. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If four marbles are picked at random, what is the probability that none is blue?

A. 17/91 **B. 33/91** C. 51/91 D. 65/91 E. None of these

8. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If three marbles are picked at random, what is the probability that they are all blue?

A. 1/455 B. 2/455 C. 1/91 D. 4/455 E. None of these

9. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If two marbles are picked at random, what is the probability that they are either blue or yellow?

A. 3/22 B. 4/21 **C. 2/21** D. 1/14 E. None of these

10. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If two marbles are drawn at random, what is the probability that at least one is green?

A.23/35 B. 29/35 C. 47/70 D. 43/70 E. None of these

BLOOD RELATION

1. A man pointing to a photograph says, "The lady in the photograph is my nephew's maternal grandmother." How is the lady in the photograph related to the man's sister who has no other sister?

A. Mother B. Cousin C. Mother–in–law D. Sister–in–law

2. A woman introduces a man as the son of the brother of her mother. How is the man related to the woman?

A. Son B. Nephew C. Grandson **D. Uncle**

3. Prasanna said, "This girl is the wife of the grandson of my mother." Who is Prasanna to the girl?

A. Husband B. Father C. Father–in–law D. Grandfather

4. If Arun says, "Vimal' mother is the only daughter of my mother", how is Arum related to Ravi?

A. Father B. Brother C. Grandfather **D. None of these**

5. Pointing to a man in a photograph. Asha said. "His mothers only daughter is my mother". How is Asha related to that man?

A. Wife B. Sister **C. Niece** D. Nephew

6. A woman going with a boy is asked by another woman about the relationship between them. The women replied, “My maternal uncle and the uncle of his maternal uncle is the same.” How is the lady related with that boy?

A. Mother and Son **B. Aunt and Nephew** C. Grandmother and Grandson D. None of these

7. A man said to a lady, “Your mother?s husband?s sister is my aunt.” How is the lady related to the man?

A. Grand daughter B. Mother C. Daughter **D. Sister**

8. If X is the brother of the son of Y?s son, how is X related to Y?

A. Son B. Cousin **C. Grandson** D. Brother

9. Introducing a man, a woman said, “His wife is the only daughter of my father.”How is that man related to the woman?

A. Husband B. Brother C. Father–in–law D. Maternal uncle

10. Showing the man receiving the prize, Saroj said, “He is the brother of my uncle’s daughter.” Who is the man to Saroj?

A. Cousin B. Brother–in–law C. Nephew D. Uncle

11. Rita told Mani,“The girl I met yesterday at the beach was the youngest daughter of the brother–in–law of my friend’s mother.” How is the girl related to Rita’s friend?

A. Daughter B. Niece C. Friend **D. Cousin**

12. Pointing to a man in a photograph, a woman said, “His brother’s father is the only son of my grandfather.” How is the woman related to the man in the photograph?

A. Aunt B. Daughter C. Grandmother **D. Sister**

13. Pointing to a gentleman, Deepak said, “His only brother is the father of my daughter’s father.” How is the gentleman related to Deepak?

A. Brother–in–law **B. Uncle** C. Father D. Grandfather

14. Pointing to a photograph, Vipul said, “She is the daughter of my grandfather’s only son.” How is Vipul related to the girl in the photograph?

A. Brother B. Grandson C. Cousin D. Father

15. Pointing to a photograph, a lady tells Pramod, "I am the only daughter of this lady and her son is your maternal uncle." How is the speaker related to Pramod's father?

A. Wife B. Sister–in–law C. Daughter D. Either (a) or (b)

SEATING ARRANGEMENT

Directions for Questions 1 to 5: Read the following information carefully and answer the questions given below :
P, Q, R, S, T, U and V are sitting around a circular table facing the centre
R is next to the left of U and V is second to the left of R.
P is sitting third to the left of T.
Q is between S and T.

1. Which of the following is false?

1. P is fourth to the right of T. 2. U is to the immediate right of R. **3. U is third to the right of S.** 4. Q is to the immediate left of S.
2. Which of the following is true?
1. R is fourth to the right of T **.2. P is to the immediate right of V.**3. S is second to the left of T. 4. Q is second to the right of V.

3. Which of the following pairs has the first person sitting to the immediate left of the second person?
1. QT 2. RP 3. VS **4. SV**

4. In which of the following options, the middle person is sitting between the other two?
1. URT 2. TUQ 3. STQ **4. None of these**

5. What is the position of U?
1. Fourth to the right of S 2. To the immediate left of R 3. Between P and T 4. To the immediate right of P

Directions for Questions 6 to 10: Read the following information carefully and answer these questions:
K, L, M, N, O, P and Q are sitting in a circle facing at the centre and playing cards.
O is neighbour of K and N.
Q is not between P and M.
P is to the immediate right of K.

L is second to the left of Q.

6. Which of the following does not have the pair of persons sitting adjacent to each other?

1. LK 2. ML 3. NO 4. QN

7. Which of the following pairs has the second person sitting immediately to the right of the first?

1. KL2. ML **3. OK** 4. None of these

8. What is the position of P?

1. Second to the left of M 2. Second to the right of M3. To the immediate left of K4. To the immediate right of L

9. Who are the neighbours of L?

1. K and P 2. M and N **3. P and M** 4. None of these

10 Which of the following persons are sitting adjacent to each other in clockwise order as shown?

1.LQM 2. PLM 3. MNQ **4. ONQ**

VERBAL QUESTIONS:

(A)Identify the Errors – Verbal Question and Answers

1. Micro towers / are principles / carriers / of telephone.
A. micro towers **B. are principles** C. carriers D. of telephone

2. The / woods / floats / in waters.
A. the B. woods C. floats D. in waters

3. He / has married / her / last month.
A. he **B. has married** C. her D. last month

4. The / plants are dry / for / the lack of water.
A. the B. plants are dry C. for **D. the lack of water**

(B)Synonyms Verbal Question & Answers

1. Remote
A. Automatic **B. Distant** C. Savage D. Mean

Explanation:
Remote means faraway, or distant

2. Detest
A. Argue **B. Hate** C. Discover D. Reveal

Explanation:
to detest means to feel intense or violent dislike, or to hate

3. Gracious
A. Pretty B. Clever **C. Pleasant** D. Present

Explanation:
gracious means to be pleasant or considerate in social interactions

4. Predict
A. Foretell B. Decide C. Prevent D. Discover

Explanation:
to predict means to declare in advance or to foretell

5. Kin
A. Exult B. Twist C. Friend **D. Relative**

Explanation:
kin means people with common ancestors, or relatives

(C)Antonyms - Verbal Ability Questions and Answers
1. Withdraw
A. Reduce B. Need **C. Advance** D. Want

Explanation:
To withdraw means to remove or retreat; to advance is the opposite of retreat
2. Secret
A. Friendly B. Covert C. Hidden **D. Overt**
Explanation:
Secret means hidden or covert; Overt means open to view

3. Heartfelt

A. Loving **B. Insincere** C. Unhealthy D. Humorous

Explanation:
Heartfelt means expressing genuine feeling, or sincere, so Insincere is its opposite

4. Impartial
A. Hostile **B. Biased** C. Dislike D. Worried

Explanation:
impartial means to be without prejudice or bias, therefore Biased is the opposite

5. Luminous
A. Clear **B. Dim** C. Brittle D. Clever

Explanation:
Luminous means radiating or reflecting light, or glowing; Dim means dark or dull

(D)Sentence Completion - Verbal Question and Answers
1. His ---------- in his family's position is great but he does not boast about it.
A. status B. pride C. deceit D. presumption

2. Everyone in this universe is accountable to God ---------- his actions.
A. about B. against **C. for** D. of

3. Prasanna got the company car for a ---------- price as he was the seniormost employee in the company.
A. reduced **B. nominal** C. fixed D. discounted

4. The opposition parties allege that prices of essential commodities are ---------- like a runaway ballon.
A. soaring B. reviving C. flying D. leaping

5. It was through the Second World War that Russia ---------- herself increased ---------- in power and wealth and prestige.
A. saw, abundantly B. notice, gullibly **C. witnessed prodigiously** D. None of these

(E)Active and Passive Voice - Verbal Question and Answers
1. Have the box broken.
A. Break the box. **B. Get someone to break the box.**
C. Have the broken box. D. They have broken the box.

2. His pocket has been picked.

A. Someone has picked his pocket. B. Picked has been his pocket.
C. They have his pocket picked. D. Picking has been done to his pocket.

3. Why do you waste time?
A. Why is time wasted by you? B. Why has time been wasted by you?
C. Why is time being wasted by you? D. Why is time been wasted by you?

4. People claim to have seen the suspect in several cities.
A. The suspect is claimed to have been seen in several cities. B. The suspect was seen by people in several cities. C. The suspect has been the people in several cities. D. The suspect is being seen in several cities.

5. A stone struck mo on the head.
A. My head was struck by a stone. B. I had been struck by a stone on the head. **C. I was struck on the head by a stone.** D. I was struck by a stone on the head.

(F)Spelling Test - Verbal Question and Answers

1. Choose the correct spelt word out of the given alternatives.
A. Damage B. Dammege C. Damaige D. Dammage

2. Choose the correct spelt word out of the given alternatives.
A. Itinaray B. Itinarery C. Itinarery **D. Itinerary**

3. Choose the correct spelt word out of the given alternatives.
A. Commander B. Comander C. Comander D. Comandar

4. Choose the correct spelt word out of the given alternatives.
A. Pasanger **B. Passenger** C. Pessenger D. Pasanger

5. Choose the correct spelt word out of the given alternatives.
A. Busisness **B. Business** C. Buisiness D. Bussiness

(G)Sentence Arrangement - Verbal Questions and Answers
1. People
(P) at his dispensary
(Q) went to him
(R) of a11 professions
(S) for medicine and treatment
A. RQSP B. QPRS C. QRPS D. RPQS

2. As lightning accompanies thunder
(P) was mingled with

(Q) so in my character
(R) the mutterings of my wrath
(S) a flash of humour
A. QSPR B. PRSQ C. QPRS **D. QRPS**

3. Recently
(P) containing memorable letters of Churchill
(Q) a book
(R) has been published
(S) by a reputed publisher
A. QPRS B. PQRS C. QRPS D. RQPS

4. All religions are
(P) to advance the cause of peace
(Q) in a holy partnership
(R) justice and freedom
(S) bound together
A. PQRS B. PRQS C. SPQR **D. SQPR**

5. It was true that
(P) the pet dog
(Q) would never sleep anywhere
(R) we once had
(S) except on the sofa
A. RPQS B. SPQR **C. PRQS** D. PQSR

(H)Idioms and Phrases - Verbal Questions and Answers
1. The result of the examination dashed my hopes.
A. failed B. kill someone **C. frustrate** D. bring great happiness

2. The result of the examination dashed my hopes.
A. failed B. kill someone **C. frustrate** D. bring great happiness

3. To see red
A. to find fault with B. to criticise others C. to be very angry D. to victimise someone
4. Oily tongue
A. rich food B. strong critic **C. flattery** D. hungry person

5. There is no need to rake up an old quarrel.
A. start B. end C. forget **D. revive**

6. A Wet blanket

A. a person who spoils a jolly atmosphere B. a warm and affable person C. a person who does not practice what he preaches D. a person who tries to willfully harm others E. a person who is observed with suspicion or enemity because of some past misdeed or scandal

Explanation:
A person who spoils a jolly atmosphere is called 'a wet blanket'.

7. Too big for one's boots
A. attempting things which one is not capable of doing **B. too conceited** C. so big that one can hardly believe it D. a situation which is extremely difficult to handle E. something which is beyond comprehension

Explanation:
The meaning of the expression 'too big for one's boots' is to be too conceited.

8. A thin time
A. an uncertain or risky situation B. an unconvincing excuse C. a period of satisfaction **D. a period of unpleasantness, poor health, lack of money etc.** E. the beginning of something that will develop into a much greater event

Explanation:
'A thin time' means a period of unpleasantness, poor health etc.

9. To hide one's head in the sand
A. to force people to stop arguing B. to keep trying to do something that will never be successful **C. to refuse to accept that a problem exists** D. to be unable to understand something E. to avoid attracting attention to oneself
Explanation:
When you 'hide your head in the sand' you refuse to accept that a problem exists.

10. To have a face like thunder
A. to appear and disappear suddenly B. to have an expressionless face **C. to look very angry** D. to deal with something that is unpleasant E. to be determined to oppose something

Explanation:
When you are very angry, one can say your 'face looks like thunder'.

11. To be up to one's neck in something
A. to have a lot of something to deal with B. to win a race by a short distance C. to be shouted at for something one has done D. to feel very nervous and frightened E. to give oneself the courage or strength to do something
Explanation:

'To be upto your neck in something' means 'to have a lot of something to deal with'.

12. To be good with one's hands
A. to learn something by experiencing something oneself rather than being taught by somebody else **B. to be skilful at making or doing things with one's hands** C. to be very busy or too busy to do something else D. to start doing something or be able to do something E. to take control of a difficult situation

Explanation:
When you are skilful at making or doing things with your hands, it is said that you are 'good with your hands'.

TECHNICAL INTERVIEW QUESTION

1.what is a transient variable?
A transient variable is a variable that may not be serialized.

2.which containers use a border Layout as their default layout?
The window, Frame and Dialog classes use a border layout as their default layout.

3.Why do threads block on I/O?
Threads block on i/o (that is enters the waiting state) so that other threads may execute while the i/o operation is performed.

4. How are Observer and Observable used?
Objects that subclass the Observable class maintain a list of observers. When an Observable object is updated it invokes the update() method of each of its observers to notify the observers that it has changed state. The Observer interface is implemented by objects that observe Observable objects.

5. What is synchronization and why is it important?
With respect to multithreading, synchronization is the capability to control the access of multiple threads to shared resources. Without synchronization, it is possible for one thread to modify a shared object while another thread is in the process of using or updating that object's value. This often leads to significant errors.

6. Can a lock be acquired on a class?
Yes, a lock can be acquired on a class. This lock is acquired on the class's Class object.

7. What's new with the stop(), suspend() and resume() methods in JDK 1.2?
The stop(), suspend() and resume() methods have been deprecated in JDK 1.2.

8. Is null a keyword?
The null value is not a keyword.

9. What is the preferred size of a component?
The preferred size of a component is the minimum component size that will allow the component to display normally.

10. What method is used to specify a container's layout?
The setLayout() method is used to specify a container's layout.

11. Which containers use a FlowLayout as their default layout?
The Panel and Applet classes use the FlowLayout as their default layout.

12. What state does a thread enter when it terminates its processing?
When a thread terminates its processing, it enters the dead state.

13. What is the Collections API?
The Collections API is a set of classes and interfaces that support operations on collections of objects.

14. Which characters may be used as the second character of an identifier, but not as the first character of an identifier?
The digits 0 through 9 may not be used as the first character of an identifier but they may be used after the first character of an identifier.

15. What is the List interface?
The List interface provides support for ordered collections of objects.

16. How does Java handle integer overflows and underflows?
It uses those low order bytes of the result that can fit into the size of the type allowed by the operation.

17. What is the Vector class?
The Vector class provides the capability to implement a growable array of objects

18. What modifiers may be used with an inner class that is a member of an outer class?
A (non-local) inner class may be declared as public, protected, private, static, final, or abstract.

19. What is an Iterator interface?
The Iterator interface is used to step through the elements of a Collection.

20. What is the difference between the >> and >>> operators?
The >> operator carries the sign bit when shifting right. The >>> zero-fills bits that have been shifted out.

21. Which method of the Component class is used to set the position and size of a component?
setBounds()

22. How many bits are used to represent Unicode, ASCII, UTF-16, and UTF-8 characters?
Unicode requires 16 bits and ASCII require 7 bits. Although the ASCII character set uses only 7 bits, it is usually represented as 8 bits. UTF-8 represents characters using 8, 16, and 18 bit patterns. UTF-16 uses 16- bit and larger bit patterns.

23What is the difference between yielding and sleeping?
When a task invokes its yield() method, it returns to the ready state. When a task invokes its sleep() method, it returns to the waiting state.

24. Which java.util classes and interfaces support event handling?
The EventObject class and the EventListener interface support event processing.

25. Is sizeof a keyword?
The sizeof operator is not a keyword.

26. What are wrapped classes?
Wrapped classes are classes that allow primitive types to be accessed as objects.

27. Does garbage collection guarantee that a program will not run out of memory?
Garbage collection does not guarantee that a program will not run out of memory. It is possible for programs to use up memory resources faster than they are garbage collected. It is also possible for programs to create objects that are not subject to garbage collection

28. What restrictions are placed on the location of a package statement within a source code file?
A package statement must appear as the first line in a source code file (excluding blank lines and comments).

29. Can an object's finalize() method be invoked while it is reachable?
An object's finalize() method cannot be invoked by the garbage collector while the object is still reachable. However, an object's finalize() method may be invoked by other objects.

30. What is the immediate superclass of the Applet class?
Panel

31. What is the difference between preemptive scheduling and time slicing?
Under preemptive scheduling, the highest priority task executes until it enters the waiting or dead states or a higher priority task comes into existence. Under time slicing, a task executes for a predefined slice of time and then reenters the pool of ready tasks. The scheduler then determines which task should execute next, based on priority and other factors.

32. Name three Component subclasses that support painting.
The Canvas, Frame, Panel, and Applet classes support painting.

33. What value does readLine() return when it has reached the end of a file?
The readLine() method returns null when it has reached the end of a file.

34. What is the immediate superclass of the Dialog class?
Window

35. What is clipping?
Clipping is the process of confining paint operations to a limited area or shape.

36. What is a native method?
A native method is a method that is implemented in a language other than Java.

37. Can a for statement loop indefinitely?
Yes, a for statement can loop indefinitely. For example, consider the following:
for(;;) ;

38. What are order of precedence and associativity, and how are they used?
Order of precedence determines the order in which operators are evaluated in expressions. Associatity determines whether an expression is evaluated left-to-right or right-to-left

39. When a thread blocks on I/O, what state does it enter?
A thread enters the waiting state when it blocks on I/O.

40. To what value is a variable of the String type automatically initialized?
The default value of an String type is null.

41. What is the catch or declare rule for method declarations?
If a checked exception may be thrown within the body of a method, the method must either catch the exception or declare it in its throws clause.

42. What is the difference between a MenuItem and a CheckboxMenuItem?
The CheckboxMenuItem class extends the MenuItem class to support a menu item that may be checked or unchecked.

43. What is a task's priority and how is it used in scheduling?
A task's priority is an integer value that identifies the relative order in which it should be executed with respect to other tasks. The scheduler attempts to schedule higher priority tasks before lower priority tasks.

44. What class is the top of the AWT event hierarchy?
The java.awt.AWTEvent class is the highest-level class in the AWT event-class hierarchy.

45. When a thread is created and started, what is its initial state?
A thread is in the ready state after it has been created and started.

46. Can an anonymous class be declared as implementing an interface and extending a class?
An anonymous class may implement an interface or extend a superclass, but may not be declared to do both.

47. What is the range of the short type?
The range of the short type is -(2^15) to 2^15 - 1.

48. What is the range of the char type?
The range of the char type is 0 to 2^16 - 1.

49. In which package are most of the AWT events that support the event-delegation model defined?
Most of the AWT-related events of the event-delegation model are defined in the java.awt.event package. The AWTEvent class is defined in the java.awt package.

50. What is the immediate superclass of Menu?
MenuItem

51. What is the purpose of finalization?
The purpose of finalization is to give an unreachable object the opportunity to perform any cleanup processing before the object is garbage collected.

52. Which class is the immediate superclass of the MenuComponent class.
Object

53. What invokes a thread's run() method?
After a thread is started, via its start() method or that of the Thread class, the JVM invokes the thread's run() method when the thread is initially executed.
54. What is the difference between the Boolean & operator and the && operator?

If an expression involving the Boolean & operator is evaluated, both operands are evaluated. Then the & operator is applied to the operand. When an expression involving the && operator is evaluated, the first
operand is evaluated. If the first operand returns a value of true then the second operand is evaluated. The && operator is then applied to the first and second operands. If the first operand evaluates to false, the
evaluation of the second operand is skipped.

55. Name three subclasses of the Component class.
Box.Filler, Button, Canvas, Checkbox, Choice, Container, Label, List, Scrollbar, or TextComponent

56. What is the GregorianCalendar class?
The GregorianCalendar provides support for traditional Western calendars.

57. Which Container method is used to cause a container to be laid out and redisplayed?
validate()

58. What is the purpose of the Runtime class?
The purpose of the Runtime class is to provide access to the Java runtime system.

59. How many times may an object's finalize() method be invoked by the garbage collector?
An object's finalize() method may only be invoked once by the garbage collector.

60. What is the purpose of the finally clause of a try-catch-finally statement?
The finally clause is used to provide the capability to execute code no matter whether or not an exception is thrown or caught.

61. What is the argument type of a program's main() method?
A program's main() method takes an argument of the String[] type.

62. Which Java operator is right associative?
The = operator is right associative.

63. What is the Locale class?
The Locale class is used to tailor program output to the conventions of a particular geographic, political, or cultural region.

64. Can a double value be cast to a byte?
Yes, a double value can be cast to a byte.

65. What is the difference between a break statement and a continue statement?

A break statement results in the termination of the statement to which it applies (switch, for, do, or while). A continue statement is used to end the current loop iteration and return control to the loop statement.

66. What must a class do to implement an interface?
It must provide all of the methods in the interface and identify the interface in its implements clause.

67. What method is invoked to cause an object to begin executing as a separate thread?
The start() method of the Thread class is invoked to cause an object to begin executing as a separate thread.

68. Name two subclasses of the TextComponent class.
TextField and TextArea

69. What is the advantage of the event-delegation model over the earlier event-inheritance model?
The event-delegation model has two advantages over the event-inheritance model. First, it enables event handling to be handled by objects other than the ones that generate the events (or their containers). This allows a clean separation between a component's design and its use. The other advantage of the eventdelegation model is that it performs much better in applications where many events are generated. This performance improvement is due to the fact that the event-delegation model does not have to repeatedly process unhandled events, as is the case of the event-inheritance model.

70. Which containers may have a MenuBar?
Frame

71. How are commas used in the initialization and iteration parts of a for statement?
Commas are used to separate multiple statements within the initialization and iteration parts of a for statement.

72. What is the purpose of the wait(), notify(), and notifyAll() methods?
The wait(),notify(), and notifyAll() methods are used to provide an efficient way for threads to wait for a shared resource. When a thread executes an object's wait() method, it enters the waiting state. It only enters the ready state after another thread invokes the object's notify() or notifyAll() methods.

73. What is an abstract method?
An abstract method is a method whose implementation is deferred to a subclass.

74. How are Java source code files named?
A Java source code file takes the name of a public class or interface that is defined within the file. A source
code file may contain at most one public class or interface. If a public class or interface is defined within a
source code file, then the source code file must take the name of the public class or interface. If no public class or interface is defined within a source code file, then the file must take on a name that is different than its classes and interfaces. Source code files use the .java extension.

75. What is the relationship between the Canvas class and the Graphics class?
A Canvas object provides access to a Graphics object via its paint() method.

76. What are the high-level thread states?
The high-level thread states are ready, running, waiting, and dead.

77. What value does read() return when it has reached the end of a file?
The read() method returns -1 when it has reached the end of a file.

78. Can a Byte object be cast to a double value?
No, an object cannot be cast to a primitive value.

79. What is the difference between a static and a non-static inner class?
A non-static inner class may have object instances that are associated with instances of the class's outer class. A static inner class does not have any object instances.

80. What is the difference between the String and StringBuffer classes?
String objects are constants. StringBuffer objects are not.

81. If a variable is declared as private, where may the variable be accessed?
A private variable may only be accessed within the class in which it is declared.

82. What is an object's lock and which object's have locks?
An object's lock is a mechanism that is used by multiple threads to obtain synchronized access to the object. A thread may execute a synchronized method of an object only after it has acquired the object's lock. All objects and classes have locks. A class's lock is acquired on the class's Class object.

83. What is the Dictionary class?
The Dictionary class provides the capability to store key-value pairs.

84. How are the elements of a BorderLayout organized?
The elements of a BorderLayout are organized at the borders (North, South, East, and West) and the center of a container.

85. What is the % operator?
It is referred to as the modulo or remainder operator. It returns the remainder of dividing the first operand by the second operand.

86. When can an object reference be cast to an interface reference?
An object reference be cast to an interface reference when the object implements the referenced interface.

87. What is the difference between a Window and a Frame?
The Frame class extends Window to define a main application window that can have a menu bar.

88. Which class is extended by all other classes?
The Object class is extended by all other classes.

89. Can an object be garbage collected while it is still reachable?
A reachable object cannot be garbage collected. Only unreachable objects may be garbage collected..

90. Is the ternary operator written x : y ? z or x ? y : z ?
It is written x ? y : z.

91. What is the difference between the Font and FontMetrics classes?
The FontMetrics class is used to define implementation-specific properties, such as ascent and descent, of a
Font object.

92. How is rounding performed under integer division?
The fractional part of the result is truncated. This is known as rounding toward zero.

93. What happens when a thread cannot acquire a lock on an object?
If a thread attempts to execute a synchronized method or synchronized statement and is unable to acquire
an object's lock, it enters the waiting state until the lock becomes available.

94. What is the difference between the Reader/Writer class hierarchy and the InputStream/ OutputStream class hierarchy?
The Reader/Writer class hierarchy is character-oriented, and the InputStream/OutputStream class hierarchy
is byte-oriented.

95. What classes of exceptions may be caught by a catch clause?
A catch clause can catch any exception that may be assigned to the Throwable type. This includes the Error and Exception types.

96. If a class is declared without any access modifiers, where may the class be accessed?
A class that is declared without any access modifiers is said to have package access. This means that the class can only be accessed by other classes and interfaces that are defined within the same package.

97. What is the SimpleTimeZone class?
The SimpleTimeZone class provides support for a Gregorian calendar.

98. What is the Map interface?
The Map interface replaces the JDK 1.1 Dictionary class and is used associate keys with values.

99. Does a class inherit the constructors of its superclass?
A class does not inherit constructors from any of its superclasses.

100. For which statements does it make sense to use a label?
The only statements for which it makes sense to use a label are those statements that can enclose a break or continue statement.