

## Quantative

1.If  $g(0)=g(1)=1$

And  $g(n)=g(n-1)+g(n-2)$  find  $g(6)$ ;

2.A plane moves from  $9^{\circ}\text{N}40^{\circ}\text{E}$  to  $9^{\circ}\text{N}40^{\circ}\text{W}$ . If the plane starts at 10 am and takes 8 hours to reach the destination, find the local arrival time.

3. If  $\log 0.317=\dots\dots\dots$  and  $\log 0.318=\dots\dots\dots$  Then find the value of  $\log 0.319$ .

4.You will be given the bit position values for A, B and C and using the relation  $(A \cup B) \cap C$  you have to construct the truth table. Then find the corresponding decimal number and choose the right option.

5.Complete the sequence 9,10,11,13,15, \_\_, 21,28.

6.In a certain format TUBUJPO is coded as STATION. The code of which string is FILTER?

7. What is the code formed by reversing the First and second letters, the third and fourth letters and son on of the string SIMULTANEOUSLY?

8.The base 5 representation of the decimal number 2048 is \_\_\_\_\_.

9.Which is the largest prime number that can be stored in a 9-bit register?

10.Find the physical quantity represented by  $\frac{\text{MOMENTUM}}{[\text{LENGTH} * \text{ACCELERATION}]}$ ?

11.A can do a piece of work in 20 days, which B can do in 12 days. In 9 days B does  $\frac{3}{4}$  of the work. How many days will A take to finish the remaining work?

1. In a two-dimensional array, X (9, 7), with each element occupying 4 bytes of memory, with the address of the first element X (1, 1) is 3000, find the address of X (8, 5).

ANS: 3212

2. In the word ORGANISATIONAL, if the first and second, third and forth, forth and fifth, fifth and sixth words are interchanged up to the last letter, what would be the tenth letter from right?

ANS: I(ROANISATIONALG)

2E. In the word ORGANISATIONAL, if the first and second, third and forth, fifth and sixth words are interchanged up to the last letter, what would be the tenth letter from right?

ANS: I(ROAGINASITNOLA)

3. What is the largest prime number that can be stored in an 8-bit memory?

ANS:127

4. Select the odd one out. a. Java b. Lisp c. Smalltalk d.Eiffel.

ANS: LISP

5. Select the odd one out a. SMTP b. WAP c. SAP d. ARP

ANS: SAP

6. Select the odd one out a. Oracle b. Linux c. Ingress d. DB2

ANS:LINUX

7. Select the odd one out a. WAP b. HTTP c. BAAN d. ARP

ANS:BAAN

8. Select the odd one out a. LINUX b. UNIX c.SOLARIS d. SQL SERVER

ANS:SQL SERVER

9. Select the odd one out a. SQL b. DB2 c.SYBASE d. HTTP

ANS:HTTP

10. The size of a program is N. And the memory occupied by the program is given by  $M = \text{square root of } 100N$ . If the size of the program is increased by 1% then how much memory now occupied?

11. A man, a woman, and a child can do a piece of work in 6 days. Man only can do it in 24 days. Woman can do it in 16 days and in how many days child can do the same work?

ANS:16

12. In which of the system, decimal number 194 is equal to 1234?

ANS:5

13. Find the value of the 678 to the base 7.

ANS:1656

14. Number of faces, vertices and edges of a cube

ANS:6,8,12

15. Complete the series 2, 7, 24, 77,\_\_\_

ANS:238

16. Find the value of  $@@+25-++@1...$ , where @ denotes "square" and + denotes "square root".

ANS:121

17. Find the result of the following \_expression if, M denotes modulus operation, R denotes round-off, T denotes truncation:

$M(373,5)+R(3.4)+T(7.7)+R(5.8)$  ANS:19

18. If TAFJHH is coded as RBEKGI then RBDJK can be coded as

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ANS:PCCKJ

19.  $G(0)=-1$ ,  $G(1)=1$ ,  $G(N)=G(N-1) - G(N-2)$ ,  $G(5)= ?$

ANS:-2

20. What is the max possible 3 digit prime number?

ANS:

21. A power unit is there by the bank of the river of 750 meters width. A cable is made from power unit to power a plant opposite to that of the river and 1500mts away from the power unit. The cost of the cable below water is Rs. 15/- per meter and cost of cable on the bank is Rs.12/- per meter. Find the total of laying the cable.

ANS:20250

22. The size of a program is  $N$ . And the memory occupied by the program is given by  $M = \text{square root of } 100N$ . If the size of the program is increased by 1% then how much memory now occupied?

23. In Madras, temperature at noon varies according to  $-t^2/2 + 8t + 3$ , where  $t$  is elapsed time. Find how much temperature more or less in 4pm to 9pm.

ANS: 385.8(DB)

24. The size of the bucket is  $N$  kb. The bucket fills at the rate of 0.1 kb per millisecond. A programmer sends a program to receiver. There it waits for 10 milliseconds. And response will be back to programmer in 20 milliseconds. How much time the program takes to get a response back to the programmer, after it is sent?

ANS: 30MILISECOND

25. A man, a woman, and a child can do a piece of work in 6 days. Man only can do it in 24 days. Woman can do it in 16 days and in how many days child can do the same work?

26. If the vertex (5,7) is placed in the memory. First vertex (1,1) ?s address is 1245 and then address of (5,7) is -----

27. Which of the following are orthogonal pairs?

- a.  $3i+2j$  b.  $i+j$
- c.  $2i-3j$  d.  $-7i+j$

ANS: (A)& (C).

28. If VXUPLVH is written as SURMISE, what is SHDVD?

ANS: PEASA

29. If A, B and C are the mechanisms used separately to reduce the wastage of fuel by 30%, 20% and 10%. What will be the fuel economy if they were used combined.

ANS: 20%

30. What is the power of 2? a. 2068 b.2048 c.2668

ANS: (B). 2048

31. Complete the series. 3, 8, --, 24, --, 48, 63

ANS: 15,35

32. Complete the series. 4, -5, 11, -14, 22, ---

ANS: -27

33. A, B and C are 8 bit no?s. They are as follows:

A 1 1 0 1 1 0 1 1

B 0 1 1 1 1 0 1 0

C 0 1 1 0 1 1 0 1

Find  $((A-B) \cup C) = ?$

Hint :

$A-B$  is  $\{A\} - \{A \cap B\}$

ANS: 0 1 1 1 1 1 1 1 (DB)

A Flight takes off at 2 A.M from northeast direction and travels for 11 hours to reach the destination which is in north west direction. Given the latitude and longitude of source and destination. Find the local time of destination when the flight reaches there?

ANS: 1:00 P.M

35. A can copy 50 papers in 10 hours while both A & B can copy 70 papers in 10 hours. Then for how many hours required for B to copy 26 papers?

ANS: 13

36. A is twice efficient than B. A and B can both work together to complete a work in 7 days. Then find in how many days A alone can complete the work?

ANS: 10.5 DAYS(11)

37. A finish the work in 10 days. B is 60% efficient than A. So how days does B take to finish the work? ANS : 4DAYS.

38. A finishes the work in 10 days & B in 8 days individually. If A works for only 6 days then how many days should B work to complete A's work?

ANS : 3.2 DAYS(4)

39. Given the length of the 3 sides of a triangle. Find the one that is impossible? (HINT : sum of smaller 2 sides is greater than the other one which is larger)

40. Find the singularity matrix from a given set of matrices?(Hint  $\det(A) \neq 0$ )

41. A 2D array is declared as  $A[9,7]$  and each element requires 2 byte. If  $A[1,1$

] is stored in 3000. Find the memory of A[8,5] ?

ANS: 3106.

42. Sum of slopes of 2 perpendicular st. lines is given. Find the pair of lines from the given set of options which satisfy the above condition?

43. (a)  $2+3i$  (b)  $1+i$  (c)  $3-2i$  (d)  $1-7i$  .Find

which of the above is orthogonal.

ANS : (A) & (C).

44.  $(\text{Momentum} \times \text{Velocity}) / (\text{Acceleration} \times \text{distance})$  find units.

ANS: MASS

45. The number 362 in decimal system is given by  $(1362)_x$  in the X system of numbers find the value of X a) 5 b) 6 c) 7 d) 8 e) 9

46. Given \$ means Tripling and % means change of sign then find the value of  $\$ \$ 6 - \% \$ \% 6$

ANS : -72

47. My flight takes off at 2am from a place at  $18^\circ\text{N } 10^\circ\text{E}$  and landed 10 Hrs later at a place with coordinates  $36^\circ\text{N } 70^\circ\text{W}$ . What is the local time when my plane landed.

a) 6:00 am b) 6:40am c) 7:40 d) 7:00

e) 8:00 (Hint : Every 1 deg

longitude is equal to 4 minutes . If west to east add time else subtract time)

ANS: (E) 8:00

48. Find the highest prime number that can be stored in an 8bit computer.

49. Which of the following set of numbers has the highest Standard deviation?

1,0,1,0,1,0

-1,-1,-1,-1,-1,-1

1,1,1,1,1,1

1,1,0,-1,0,-1

50. Match the following:

1. Male - Boy --->

a. A type of

2. Square - Polygon --->

- b. A part of
- 3. Roof - Building --->
- c. Not a
- type of
- 4. Mushroom - Vegetables ---> d.
- A superset of

Ans: 1- d, 2- a, 3- b, 4- c

51. Match the following.

- 1. brother - sister
- > a. Part of
- 2. Alsatian - dog --->
- b. Sibling
- 3. sentence - paragraph --->
- c. Type of
- 4. car - steering
- > d. Not a type
- of

Ans. 1-b, 2-c, 3-a, 4-d

### JADAVPUR UNIVERSITY 1999

PART II QUANTITATIVE APTITUDE ,TIME 20 Min. MARKS :30.

- 
- 1. Two pencils costs 8 cents, then 5 pencils cost how much  
(Ans:20 cents).
  - 2. A work is done by the people in 24 min. one of them can do  
this work a lonely in 40 min. how much time required to do the  
same  
work for the second person.  
(ans:60 min.)
  - 3. A car is filled with four and half gallons of oil for full  
round  
trip. fuel is taken  $\frac{1}{4}$  gallons mor3 in going than coming. what is  
the fiel consumed in coming up? (2 gallons)

4. low temperature at the night in a city is  $\frac{1}{3}$  more than  $\frac{1}{2}$  hinge as higher temperature in a day. sum of the low temp and higherst temp is 100C. then what is the low temperature (40 C)

5. A person who decided to go weekend trip should not exceed 8 hours driving in a day Average speed of forward journey is 40 mph. due to traffic in sundays, the return journey average speed is 30 mph. how far he can select a picnic spot (120 miles).

6. A sales person multiplied a number and get the answer is 3, instead of that number divided by 3. what is th answer he actually has to get ? ( $\frac{1}{3}$ ).

7. A ship started from port and moving with I mph and another ship started from L and moving with H mph. At which place these two ships meet ? ( Ans is between I and J and close to J)

!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!  
port G H I J K L

8. A building with hight D ft shadow upto G A neighbour building with what height shadow C ft is (B ft.)

!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!\_\_\_\_\_!  
A B C D E F G H

9. A person was fined for exceeding the speed limit by 10 mph. Another person was also fined for exceeding the same speed limit by twice the same. If the second person was travelling at a speed of 35 mph. find the speed limit (15 mph)



10. A bus started from bustand at 8.00a m and after 30 min staying at destination, it returned back to the bustand. the destination is 27 miles from the bustand. the speed of the bus 50 percent fast speed.  
at what time it retur4ns to the bustand (11.00)

11.in a mixture, R is 2 parts, S is 1 part. in order to make S to 25% of the mixture, howmuch R is to be added ( one part).

12. wind flows 160 miles in 330 min, for 80 miles how much time required.

13. with  $\frac{4}{5}$  full tank vehicle travels 12 miles, with  $\frac{1}{3}$  full tank how much distance travels ( 5 miles).

14. two trees are there. one grows at  $\frac{3}{5}$  of the other. in 4 years, total growth of trees is 8 ft. what growth will smaller tree will have in 2 years. (<2ft)

15. A storm will move with a velocity of towards the center in hours. At the same rate how much far will it move in hrs.  
(but Ans is  $\frac{8}{3}$  or  $2\frac{2}{3}$ ).

### **Papers From Campus Recruitment atCalicut REC 1997**

1. If two pencils cost 8 cents, then how much do 5 pencils cost?

Ans. 20 cents

2. Some work is done by two people in 24 minutes. One of them can do this work alone in 40 minutes. How much time does the second person take to do the same work ?

Ans. 60 minutes

3. A car is filled with four and half gallons of fuel for a round trip. If the amount of fuel taken while going is  $\frac{1}{4}$  more than the amount taken for coming, what is the amount of fuel consumed while coming back?

Ans. 2 gallons

4. The lowest temperature in the night in a city A is  $\frac{1}{3}$  more than  $\frac{1}{2}$  the highest during the day. Sum of the lowest temperature and the highest temperature is 100 degrees. Then what is the low temp?

Ans. 40 degrees

5. Javagal, who decided to go to weekend trip should not exceed 8 hours driving in a day. The average speed of forward journey is 40 miles/hr. Due to traffic on Sundays, the return journey's average speed is 30 m/h. How far he can select a picnic spot?

- a) 120 miles
- b) between 120 and 140 miles
- c) 160 miles

Ans. 120 miles

6. A salesperson by mistake multiplied a number and got the answer as 3, instead of dividing the number by 3. What is the answer he should have actually got?

Ans. 3

7. A building with height D shadow upto G. What is the height of a neighbouring building with a shadow of C feet.

Ans.  $(C \cdot D)/G$

8. A person was fined for exceeding the speed limit by 10 mph. Another person was also fined for exceeding the same speed limit by twice the same. If the second person was travelling at a speed of 35 mph, find the speed limit.

Ans. 15 mph

9. A bus started from bustand at 8.00am, and after staying for 30 minutes at a destination, it returned back to the busstand. The destination is 27 miles from the busstand. The speed of the bus is 18mph. During the return journey bus travels with 50% faster speed. At what time does it return to the busstand?

Ans. 11.00am

10. In a mixture, R is 2 parts and S is 1 part. In order to make S to 25% of the mixture, how much of R is to be added?

Ans. One part of R

11. Wind flows 160 miles in 330 min, for travelling 80 miles how much time does it require?

Ans. 2 hrs 45 mins

12. With a  $\frac{4}{5}$  full tank a vehicle can travel 12 miles, how far can it travel with a  $\frac{1}{3}$  full tank

Ans. 5 miles

13. There are two trees in a lawn. One grows at a rate  $\frac{3}{5}$  of the other in 4 years. If the total growth of trees is 8 ft. What is the height of the smaller tree after 2 years

Ans.  $1\frac{1}{2}$  feet

14. Refer to the figure below. A ship started from P and moves at a speed of I miles per hour and another ship starts from L and moving with H miles per hour simultaneously. Where do the two ships meet?

||---g---||---h---||---i---||---j---||---k---||---l---||

P G H I J K L are the various stops in between denoted by || . The values g, h, i, j, k, l denote the distance between the ports.

Ans. Between I and J, closer to J

15. If A is travelling at 72 km per hour on a highway. B is travelling at a speed of 25 meters per second on a highway. What is the difference in their speeds in m/sec.

Ans. 1 m/sec

#### **IV SECTION**

1. There are 150 weights. Some are 1 kg weights and some are 2 kg weights. The sum of the weights is 260. What is the number of 1kg weights?

Ans. 40

2. A is driving on a highway when the police fines him for overspeeding and exceeding the limit by 10 km/hr. At the same time B is fined for overspeeding by twice the amount by which A exceeded the limit. If he was driving at 35 km/hr what is the speed limit for the road?

Ans. 15 kmph

3. A moves 3 kms east from his starting point . He then travels 5 kms north. From that point he moves 8 kms to the east.How far is A from his starting point?

Ans. 13 kms

4. A car travels 12 kms with a  $\frac{4}{5}$ th filled tank.How far will the car travel with  $\frac{1}{3}$  filled tank?

Ans. 5 kms

5. The sum of the digits of a two digit number is 8. When 18 is added to the number, the digits are reversed. Find the number?

Ans. 35

6. The cost of one pencil, two pens and four erasers is Rs.22 while the cost of five pencils, four pens and two erasers is Rs.32.How much will three pencils, three pens and three erasers cost?

Ans. 27

7. Fathers age is 5 times his son's age. 4 years back the father was 9 times older than son.Find the fathers' present age.

Ans. 40 years

8. What number should be added to or subtracted from each term of the ratio 17 : 24 so that it becomes equal to 1 : 2.

Ans. 10 should be subtracted

9. What is the 12th term of the series 2, 5, 8, ....

Ans. 35

10. If 20 men take 15 days to complete a job, in how many days can 25 men finish that work?

Ans. 12 days

11. In a fraction, if 1 is added to both the numerator and the denominator, the fraction becomes  $\frac{1}{2}$ . If numerator is subtracted from the denominator, the fraction becomes  $\frac{3}{4}$ . Find the fraction.

Ans.  $\frac{3}{7}$

12. If Rs.1260 is divided between A, B and C in the ratio 2:3:4, what is C's share?

Ans. Rs. 560

13. A shopkeeper bought a watch for Rs.400 and sold it for Rs.500. What is his profit percentage?

Ans. 25%

14. What percent of 60 is 12?

Ans. 20%

15. Hansie made the following amounts in seven games of cricket in India: Rs.10, Rs.15, Rs.21, Rs.12, Rs.18, Rs.19 and Rs.17 (all figures in crores of course). Find his average earnings.

Ans. Rs.16 crore

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**Quantitative:**

1. 3 angles or 3 sides r given.Which will form a triangle?

2. units of basic quantities :

1.  $(\text{energy} * \text{time} * \text{time}) / (\text{mass} * \text{dist}) = \text{distance}$

2.  $(\text{momentum} * \text{velocity}) / (\text{force} * \text{time}) = \text{velocity}$

3.”&” is for doubling the value “%” is for change of sign then what is the value

5-&%&5 Ans-30 (Check)

3. 58,27,12,x,2,1. Find x.

4. R-rounding off, M-modulus, T-truncate

M(893,10)+r( )+t( ) is asked

5.vertices edges and surfaces of a cube Ans-8,12,6

6.Sums on Recursive functions

7.Questions on General computer awareness

Pick the odd one.....

1.http 2.arp 3.snmp 4.sap Ans-sap

1.linux 2.windows NT 3.sql server 4.Unix Ans-Sql server

Another.....ans-Smtp

Ans-MVS

8. Which of the following is a singular matrix. (Determinant must be zero)

9. Aeroplane is flying at a particular angle and latitude, after some time another latitude is given..(8 hrs later), u r asked to find the local time of the place.

10. a series of letters are given

how many Ws r followed by F and preceded by T.

11. 7,9,13,\_,27,37. Ans-19

12. SURFW Code is translated as SHEET.....these kinda ques r there.....

13. 194 base 10 = \_\_\_\_ base 5 (1234)

14. Largest prime no. in a 6 bit, 8 bit (Ans 127), 9 bit microprocessor

15. Venn Diagram kinda ques.

Some know English, some French, some German.....how many know two languages.....

16. Bar Diagram, Pie Chart (similar to Data interpretation)

17. Code Interchanging, A word is given.... Letters are reversed..u r asked to find the nth letter from right or left....

Eg.

DESTABILIZATION Ans-T



18. Sums on logarithms, e power x curves.

19.  $n = 68 \times 12 \times 51$

Which of the follg is not an integer Ans-  $n/122$

20. Which is a/not a power of 2 or 3.

Power of 4 Ans- 4096

21. A-- 1 0 10 10 (Not exact values)