These r the questions from previous papers without repetition. Aptitude Questions:

- 1. A&B fills 3 liters and 5 liters of oil in the car. C pays Rs. 8/- to AB. How much will A get?
- 2.4 cows are there at the four corners of a square. if the radius of the rope is 1 and length of one side of the square is 14, find the area along the square which the cow cannot gaze.
- 3. Two glasses were filled with 1/3 and 1/4 milk. they were filled with water &then mixed in tumbler. what is the percentage of milk in the resultant?
- 4. A belongs to the truther tribe "who says yes". B belongs to the liars tribe "who says no always". when A&B were asked to which group do they belonged to both of them replied "yes". when a third person C was asked whether A&B belong to same group, he notified groups he answered "No". to which group do A,B and C belong?
- 5. There were three clocks they gave alarm after 24secs, 12secs and 36 secs. if they rang simultaneously at 8:20, then at what time they again rang simultaneously? (something like this but numbers may differ).
- 6. A plane starts from a place A, it goes 1000 kms south then 1000km east then 1000 km north and 1000km west, what is it distance from the starting place?
- 7. question on Bipartite graph(definition).
- 8.If A can do a particular work in 8 days. B can do the work in 6 days. By C joining with them, they can finish the work in 3 days. If Rs.540 was paid to them, what is the share of C?
- 9.By selling a product a seller is gaining 10% on selling price. If he sell that product Rs.80 less, he would have been losing 10%. What is the cost price?
- 10.If A driver drives a car four times a lap 10,20 30,60 kmph .what is his average speed.
- 11.If M persons are going for a party, then their share is \$D. If three persons were absent, then how much share will be increased for each individual.
- 12. If the radius is increased by 50%. How much will be the volume increased for a circle / Sphere in percentage.
- 13. One person is wearing Black and White shoes as his pair. If he is having 20 white and 20 Black shoes. What will be the less number of times he have try to take his correct pair of shoes.
- 14. The age of the grand father is the sum of his three grandsons. The second is 2 year younger than first one and the third one is 2 year younger than the second one. Then what will be the age of the grandfather.
- 15. in a grass field, If there are 40 cows, they could eat for 40 days. If there are 30 cows, they could eat for 60 days. Than if 20 cows, how much day they could eat?

- 16. If the size of the fruit is two times the size of the seed. Then what is the volume of the seed. (derive general equation)
- 17. Speed of boat in still water is 10kmph.if it travels 24km downstream,16km upstream in the same amount of time. what is the speed of the stream?
- (a)3kmph
- (b) 3.5kmph
- (c)2kmph
- (d)...
- 18. How many times do the hands of the clock coincide in a day?
- 19. If a person is standing in room, that is having mirrors in all the four walls. How many images of the person will appear.
- 20. Five qs on sectors. In a pie chart the sectors were given in terms of percentages. Various questions were asked on it. For e.g. For each of these divisions the percentages was mentioned and something similar to the following questions were asked. If 105 was scored, find which subject it is? If the difference between Math's and Science is 25 which other 2 subjects have the same difference?
- 21. Which of the following is the sum of 3 consecutive prime nos?
- (a)49
- (b)59
- (c)both a &b
- (d)....
- 22. one person traveled 4 laps with the speed of 10,20,40 (or 30) and 60 kmph and what is the average speed.
- 23.like one student takes 20 mins if he go with speed 15kmph and at what speed he should go to reach in 15 mins (nos are not same)
- 24. In a group there are two kinds of people type A & type B. type A people answer for any question as YES & that of type B as NO. if they can not answer to this question then they remain silent. the mayor asks question to them as follows.......
- 1).if he asks a person are u type A
- a. YES b.NO c. Silent d.Can not be determined
- 2) he asks two persons X &Y simultaneously whether u of same type
- a. YES b. NO c.YES or NO d. Silent e. can not be determined
- 3) pointing to a person X he asks Y what his type is
- a. YES b. No c. Silent d can not be determined
- 4).pointing to a person X he asks Y if I ask him whether r u type A ,will he answer YES.Y says NO .what type of B is
- a. YES b. NO . c. Silent d. can not be determined

- 25. A ball falls from a height of 8ft ,bounces back to half the distance & continues till it comes to rest. What is the total distance traveled by the ball?

 (a) 24ft (b)... (c) infinite (d) cannot be determined
- 26.like 6 cubes are arranged adjacently and given the perimeter and asked to find the perimeter of one cube.
- 27. If the area of a square has increased by 69%, by what % has its side increased?
- 28 Rational numbers between 1 and 5 1. 3 2. 2 3. 0 4.infinite 5.finite.
- 29. First day of 1999 is Sunday what day is the last day (a)Sunday (b)Monday (c).... (d)cannot be determined.
- 30. Some x no of bullets are shared by 3 people equally . and each fired 4 bullets then the sum of remaining bullets is equal to initially division value
- 31. 4 thieves enter a bakery and stole bread one after the other. Each one took half of the total number of breads+ half a loaf. If 3 breads were remaining what is the total number of breads.
- 32. like A can do in 6 day and B can do in 8 and C can do in 12 days but b left after working for 6 days for how many no of day A and C should work
- 33. x=y+1 is equivalent to
- 34.A clerk multiplied a number by ten when it should have been divided by ten. The ans he got was 100.what should the ans have been?
- 35.If Rs20/- is available to pay for typing a research report & typist A produces 42 pages and typist B produces 28 pages. How much should typist A receive?
- 36. The average salary of 3 workers is 95 Rs. per week. If one earns Rs.115 and second earns Rs.65 how much is the salary of the 3rd worker.
- 37.A 16 stored building has 12000 sq.feet on each floor. Company A rents 7 floors and company B rents 4 floors. What is the number of sq.feet of unrented floor space.
- 38. During a given week A programmer spends 1/4 of his time preparing flow chart, 3/8 of his time coding and the rest of the time in debugging the programs. If he works 48 hours during the week , how many hours did he spend debugging the program.
- 39. A company installed 36 machines at the beginning of the year. In March they installed 9 additional machines and then disconnected 18 in August. How many were still installed at the end of the year.
- 40. A man owns 2/3 of the market research beauro business and sells 3/4 of his shares for Rs. 75000. What is the value of Business.

- 41. If 12 file cabinets require 18 feet of wall space, how many feet of wall space will 30 cabinets require?
- 42.A computer printer produced 176,400 lines in a given day. If the printer was in operation for seven hours during the day, how many lines did it print per minute?
- 43. From its total income, A sales company spent Rs.20,000 for advertising, half of the remainder on commissions and had Rs.6000 left. What was its total income?
- 44. On Monday a banker processed a batch of cheques, on Tuesday she processed three times as many, and on Wednesday she processed 4000 cheques. In the three days, she processed 16000 cheques. How many did she process on Tuesday?
- 45. The cost of four dozen proof machine ribbons and five dozen accounting machine ribbons was Rs.160/-. If one dozen accounting machine ribbons cost Rs.20/-, what is the cost of a dozen proof machine ribbons?
- 46. If a clerk can process 80 cheques in half an hour, how many cheques can she process in a seven and one half hour day?
- 47. In a library, there are two racks with 40 books per rack. On a given day, 30 books were issued. What fraction remained in the racks?
- 48. The average length of three tapes is 6800 feet. None of the tapes is less than 6400 feet. What is the greatest possible length of one of the other tapes?
- 49. A company rented a machine for Rs.700/- a month. Five years later the treasurer calculated that if the company had purchased the machine and paid Rs.100/- monthly maintenance charge, the company would have saved Rs.2000/-. What was the purchase price of the machine?
- 50. Two computers each produced 48000 public utility bills in a day. One computer printed bills at the rate of 9600 an hour and the other at the rate of 7800 an hour. When the first computer finished its run, how many bills did the other computer still have to print?
- 51. If a salesman's average is a new order every other week, he will break the office record of the year. However, after 28 weeks, he is six orders behind schedule. In what proportion of the remaining weeks does he have to obtain a new order to break the record?
- 52. On a given day, a bank had 16000 cheques returned by customers. Inspection of the first 800 cheques indicated that 100 of those 800 had errors and were therefore the available immediately for data processing. On this basis, how many cheques would be available immediately for data processing on that day?
- 53. A company figured it needed 37.8 sq.feet of carpet for its reception room. To allow for waste, it decided to order 20% more material than needed. Fractional parts of sq.feet cannot be ordered. At Rs.9/- a sq.feet, how much would the carpet cost?
- a) Rs.324 b) Rs.405 c) Rs.410 d) Rs.414 e) Rs.685

- 54. A tape manufacturer reduces the price of his heavy duty tape from Rs.30/- to Rs.28/- a reel and the price of a regular tape from Rs.24/- to Rs.23/- a reel. A computing centre normally spends Rs.1440/- a month for tapes and 3/4 of this is for heavy duty tapes. How much will they save a month under the new prices?
- 55. In a team of 12 persons, 1/3 are women and 2/3 are men. To obtain a team with 20% women how many men should be hired?
- 56. The dimensions of a certain machine are 48" X 30" X 52". If the size of the machine is increased proportionately until the sum of its dimensions equals 156", what will be the increase in the shortest side?
- 57. In a certain company, 20% of the men and 40% of the women attended the annual company picnic. If 35% of all the employees are man, what percent of all the employees went to the picnic?
- 58. It cost a college Rs.0.70 a copy to produce a Programmed for the homecoming football game. If Rs.15,000/- was received for advertisements in the programme, how many copies at Rs.0.50 a copy must be sold to make a profit of Rs.8000/-?
- 59.a person's age is similar to the year he was born(last two digits is counted as age).
- 60.If boat travels in 10km/hr in still water. it travels 14kmhr in upstream and 26km/hr downstream what is speed of stream?
- 61. A cube of 3 units is painted on all sides. If this cube is divided into cubes of 1 unit, how many cube have none of their faces painted?

 (a)... (b)2 (c)1 (d)0 (e)none of these
- 62. If a person sells a product for rs141/- he suffers a loss of 6%.if he has to have a profit of 10%, at what price should he sell it?
 (a)... (b)rs.175 (c).. (d)rs.165
- 63. If person 20 min at 12 kmph. then how many Kmph in 15 minutes
- 64. If 3 houses are to be painted, Mr. A can paint a house in 6 days(nos are not same)...Mr. B can do the same in 8 days...& Mr. in 12 days. if Mr. A does the work for 8 days & leaves for vacation, & Mr. B continues the work for the next 6 days, for how many days should Mr. work?
- 65. 6 squares of equal size are placed side by side to form a rectangle whose perimeter is 182. find the perimeter of the single square.
- 66. The average age of students in a class is 16.when a teacher of age 40 is included, the average becomes 17. what is the total number of students
- 67. A square plate of some size is cut at four corners. Equal squares of the same size are cut and is formed as open box. If this open box carries 128 ml of oil. What is the size of the side of the plate?
- (a) 17 (b) 14 (c) 13 (d) None of these

- 68. In a class, except 18 all are above 50 years. 15 are below 50 years of age. How many people are there
- (a) 30 (b) 33 (c) 36 (d) none of these.
- 69. In 1978, a kg of paper was sold at Rs25/-. If the paper rate increases at 1.5% more than the inflation rate which is 6.5% a year, then what will be the cost of a kg of paper after 2 years?
- (a) 29.12 (b) 29.72 (c) 30.12 (d) 32.65 (e) none of these
- 70. In A, B, C are having some marbles with each of them. A has given B and C the same number of marbles each of them already have. Then, B gave C and A the same number of marbles they already have. Then C gave A and B the same number of marbles they already have. At the end A,B and C have equal number of marbles.
- (i) If x, y, z are the marbles initially with A,B,C respectively. Then the number of marbles B has at the end
- (a) 2(x-y-z) (b) 4(x-y-z) (c) 2(3y-x-z) (d) x + y-z
- (ii) If the total number of marbles are 72, then the number of marbles with A at the starting
- (a) 20 (b) 30 (c) 32 (d) 39
- 71. If a car starts from A towards B with some velocity. Due to some problem in the engine after traveling 30km, the car goes with 4/5th of its actual velocity. The car reaches B 45 min later to the actual time. If the car engine fails after traveling 45km, the car reaches the destination B 36min late to the actual time. What is the initial velocity of car and what is the distance between A and B in km?
- 72. A person has Rs 100/- in his pocket, he can as 25 pencils or 15 books. He kept 15% of the money for traveling expenses and purchased 5 pencils. So how many books he can purchase with the remaining money.
- 73. Ten guestions on analogies.

e.g.: chief: tribe:: governor: state epaulette: shoulder:: tiara: head guttural: throat:: gastric: stomach inept: clever:: languid: active

knife : butcher ::
hammer : carpenter ::

74. The values of shares (in Rs).of A, B and C from January to June are as follows.

Month A B C
January 30 60 80
February 35 65 85
March 45 75 65
April 40 75 82
May 55 75 85
June 50 75 80

- i) During this period which share has undergone maximum fluctuation?
- ii) In which month it is possible to buy B and C selling A?
- iii) In which month the share values are very low?

iv) By purchasing one share of A and 4 each of B and C in the beginning of the period,

when should these be sold to get maximum profit?

- 75. In a computer institute 9 languages can be taught. The module is of 6 months duration and of the six languages only one can be taught each month. In addition to that BASIC is always taught and should be in first month itself
- WORD PERFECT is to be taught in the preceding week of WORD STAR.
- FORTRAN can not be taught until COBAL is taught prior to that
- BINO, FIFO can never be taught in single module languages are BASIC, WORD STAR, WORD PERFECT, FORTRAN, COBAL, BINO, FIFO, LOTUS, C
- i) If word star is in 3rd month, what could be in 6th month.
- ii) If COBAL is in the 2nd month and BINO in 6th month. FORTRAN will be taught in which month.
- 76. In a square, all the mid points are joined. The inner square is shaded. If the area of the square is A, what is the area of the shaded area?
- 77. Two questions on basic angles i.e. given a circle, a few chords or diameter is drawn etc.
- 78. If the following statements are given
- @(a,b) = (a+b)/2
- /(a,b) = a/b
- *(a,b) = ab

If a=1, b=2 then find

i) /(a,(@(a,b),*(a,b)))

ii) */(a,@(*(a,b)))

Technical Questions:

- 1.7^253. Last digit?
- 2.10^10^10 how much time will it take to write this number, if it takes 1 sec to write 1 digit.
- a)1000 secs. b)10 year. c)more than 1 million years. d)a few days.
- 3. starting from 2 up to how many numbers we need to check whether 907 is prime or not?
- 4. . In C, x=y+1 how will u represent it.. a.x=x+y+1 b.-x-y-1 c.-x+y+1
- 5. what is YACC?
- 6. flop is a unit of?
- 7.#define hello(x,y) printf(#expr"%d",expr); main(){ float x=1,y=2; expr=x/y;

```
hello(expr);
}
8.heap-sorting algorithm time complexity.
9.white-box testing.
10.postfix evaluation of: (A+B)*C
11.question on catch-throw? c++
12.parity bit is for?
13.main(){
main();
}
14.main()
{ char a,b;
  printf("%d%d%d%d",sizeof('a');
sizeof(NULL),sizeof(b),sizeof(main));
15. five file sizes given . what should be the order of their access so
that least time is taken.
16. SQL query does what?
17. main()
  { printf("%u",main); } what will be the output?
18. main()
  int I, b, con;
  l=b=2;
  con= (b==1) ? 1 : 0;
  printf("%d",con);
  what will be the value of con?
19. Software Configuration Management process is -
(a) developing & managing software for ..... software....
(b) developing & managing hardware for....software......
(c)... (d)..
20. Data Integrity constraint is -----//DBMS
21. Paging is -----//OS
22. What type of memory could be accessed in least time?//CO
23. what is vector processing
24. what is data integrity
```

```
25 . which of the following uses the minimum length of cable?
(a)ring (b)star (c)mesh (d)bus (e)all of the above
26. Best sorting if elements are already sorted
27. In network the packets are flowing unnecessarily what is the way to control
 it and ....
28. A trigger is
(a) a statement .. start of database...
(b) statements that r executed as a side effect to the modification to the database
(c)... (d)...
29. in c r+ is used for
1.read only 2. writing only 3. both 1 and 2
30.ROM is
(a)volatile (b)permanent & fast
(c)device containing boot up program & is not accessible (d)...
31. what does the following statement mean?
int (*a)[4]
(a)'a' is a pointer to an array of 4 integers
(b)'a' is an array of pointers to integer
(c)'a' is a pointer to function returning an integer (d)...
32. If a primary key is an attribute of another one table means......
1. candidate key 2. foreign key 3. secondary key 4.....
33. what is the difference b/w 0123 and 123 in c?
34. In a student form what is the relationship b/w student and course
35. How can u append the Is and who to certain existing file (like that) (i.e. listing &
output of who is to be directed to a file
(a)ls;who>filename
                        (b)ls; who > > filename
(c)(ls; who)>>filename (d)who; ls<filename
                                                (e)...
36. which among the devices is spooled device?
37. suppose u have a network .users complain of slow ....u suspect a problem in
network adapter once u find that the data is continuous and erroneous. what
device do u use?
(a)volt-ohmmeter (b)SNMP (c)protocol... checking (d)all of the above
38.int i = 10;
printf("%d%d%d",i,i++,++i); Output is?
39.printf("Enter two values a and b:"):
scanf("%d%d",a,b);
printf("%d+%d=%d",a,b,a+b); Output is?
```

- 40. when destroy window what message would display 41.MS Windows 3.1 about multitasking 42.windows 3.1 is 43. The command grep first second third /usr/you/myfile a) prints lines containing the words first, second or third from the file /usr/you/myfile b) searches for lines containing the pattern first in the files second, third, and /usr/you/myfile and prints them c) searches the files /usr/you/myfile and third for lines containing the words first or second and prints them d) replaces the word first with the word second in the files third and /usr/you/myfile e) None of the above 44. what is the command to initiate the windows 45.const char *, char * const. What is the difference between the above two?. 46.In Unix inter process communication take place using?. 47. What are the files in /etc directory? 48. In UNIX a files i-node? 49. Max relaxable permission value with out giving write permission to others? 50. Linking across directories? 51. In the process table entry for the kernel process, the process id value is (a) 0 (b) 1 (c) 2 (d) 255 (e) it does not have a process table entry 52. The very first process created by the kernel that runs till the kernel process is halts is a) init b) get tty c) both (a) and (b) d) none of these 53. Which of the following function is used to repaint a window immediately? a) Send message(hWnd,WM_PAINt,.....) b) InvalidateRect(.....) d) WM_COPY c) Move Window e) None 54. Which function is the entry point for a DLL in MS Windows 3.1 a) Main b) Win main c) Dllmain d) Libmain e) None 55. Which is said to be a real-time system.? 1. credit card system 2. online flight reservation system
- 57. Which of the following API is used to hide a window?
- a) Show Window b) Enable Window c) Move Window d) SetWindowPlacement
- e) None of the above

What is the value of e?

3. bridge control system 4. robotics

(a) 7 (b) 4 (c) 5 (d) 15 (e) 3

56. enum number { a=-1, b=4, c, d, e}

```
58. The UNIX shell ....
a) does not come with the rest of the system
b) forms the interface between the user and the kernel
c) does not give any scope for programming
d) does not allow calling one program from with in another
e) all of the above
59. Output of the following program is
main()
\{int i=0;
for(i=0; i<20; i++)
{switch(i)
case 0:i+=5;
case 1:i+=2;
case 5:i+=5;
default i+=4;
break; }
printf("%d,",i); } }
a) 0,5,9,13,17 b) 5,9,13,17 c) 12,17,22 d) 16,21 e) Syntax error
60. What is the output in the following program
main()
\{char c=-64; int i=-32\}
unsigned int u = -16;
if(c>i) { printf("pass1,");
           printf("pass2");
```

c) Fail1, Pass2

strcpy(a,p);

d) Fail1, Fail2 e) None of these

if(c<u)

else printf("Fail1); if(i<u) printf("pass2");</pre> printf("Fail2")

else

else }

void main() {int i;

Temp=a;

printf("Fail2"); }

61. What will the following program do?

char a[]="String", *p="New String", *Temp;

p = malloc(strlen(Temp) + 1); strcpy(p,Temp);

a) Pass1, Pass2 b) Pass1, Fail2

a=malloc(strlen(p) + 1);

printf("(%s, %s)",a,p);

```
free(p); free(a);
}
a) Swap contents of p & a and print: (New string, string)
b) Generate compilation error in line number 8
c) Generate compilation error in line number 5
d) Generate compilation error in line number 7
e) Generate compilation error in line number 1
62. In the following code segment what will be the result of the function,
value of x, value of y
{unsigned int x=-1; int y;
y = -0;
if(x == y) printf("same");
       printf("not same"); }
else
                            b) not same, MAXINT, -MAXINT c) same, MAXUNIT, -1
a)same, MAXINT, -1
d) same, MAXUNIT, MAXUNIT e) not same, MAXINT, MAXUNIT
63. PATH = /bin : /usr : /your home. The file /bin/calendar has the following line in it
cal 10 1997. The file /yourhome/calender has the following line in it cal 5 1997. If
the current directory is /your home and calendar is executed
a) The calendar for May 1997 will be printed on screen
b) The calendar for Oct 1997 will be printed on screen
c) The calendar for the current month( whatever it is) will be printed
d) Nothing will get printed on screen
e) An error massage will be printed
64 The redirection operators > and >>
                           b) differ: > overwrites, while >> appends
a) do the same function
c) differ: > is used for input while >> is used for output
d) differ: > write to any file while >> write only to standard output e) None of these
65. What will be result of the following program?
void myalloc(char *x, int n)
{ x = (char *)malloc(n*sizeof(char));
memset(x, 0, n*sizeof(char)); }
main(){char *g="String";
myalloc(g,20);
strcpy(q,"Oldstring");
printf("The string is %s",g); }
a) The string is: String b) Run time error/Core dump c) The string is: Old string
d) Syntax error during compilation
                                      e) None of these
66. The standard source for standard input, standard output and standard error is
a) the terminal b) /dev/null
c) /usr/you/input, /usr/you/output/, /usr/you/error respectively d) None
67. What will be the result of the following program?
main()
{char p[]="String";
int x=0;
if(p=="String") { printf("Pass 1");
if(p[sizeof(p)-2]=='q') printf("Pass 2");
```

```
else printf("Fail 2"); }
else { printf("Fail 1");
if(p[sizeof(p)-2]=='g') printf("Pass 2");
          printf("Fail 2"); } }
else
a) Pass 1, Pass 2
                    b) Fail 1, Fail 2
                                      c) Pass 1, Fail 2 d) Fail 1, Pass 2
e) syntax error during compilation
68. Which of the choices is true for the mentioned declaration?
const char *p; and char * const p;
a) You can't change the character in both
b) First: You can't change the character & Second: You can't change the pointer
c) You can't change the pointer in both
d) First: You can't change the pointer & Second: You can't change the character
e) None
69. What will be the result of the following program?
char *gxxx()
{static char xxx[1024]; return xxx; }
main() {char *g="string";
strcpy(gxxx(),g);
g = gxxx();
strcpy(g, "oldstring");
printf("The string is : %s",gxxx()); }
a) The string is: string b) The string is: Old string c) Run time error/Core dump
d) Syntax error during compilation e) None of these
```

Interview:

- What is the most important thing in database design?
- Explain normalization technique as u would explain to a common man?
- What are the steps in SDLC?
- Which is the most important step in SDLC?
- Is documentation a waste of time?
- Draw a flowchart to find a number from an array.
- What is error detection and where will u do it?//CN/CO
- if u get an offer from the 3 top companies which one would u choose? After u joined IBM if u get a better offer from another company what will u do?
- "How do u rate ur self technically on a scale of 5?"
- o why 2+2 is 4 why not 5.

- how may stones did hanuman throw on lanka? (different but of same type) and one more how many trees are there in u'r campus ...
- why IBM and etc

part1:

- 1. 19,24,20,25,21,26,?
- 2. 11,14,12,15,13,16,?
- 3. 10,2,8,2,6,2,?
- 4. 8,9,11,14,,18,23,?
- 5. 25, 25, 22, 22, 19, 19, ?
- 6. 14,2,12,4,10,6,?
- 7. 7,16,9,15,11,14,?
- 8. 40,42,39,44,38,46,?
- 9. 3,18,4,24,5,30,?
- 10. 18,20,22,20,28,20,?
- 11. 18,20,10,12,4,6?
- 12. 7,6,8,5,3,7,?
- 13 9,18,21,25,20,?
- 14 3,3,4,8,10,36,?
- 15.30,28,25,20,34,28,?
- 16. 4,8,16,32,64,128,?
- 17. 8,16,24,32,40,48,?
- 18. 13,11,14,12,15,13,?
- 19. 6,18,36,108,216,648,?
- 20. 4,4,8,8,16,16,?
- 21. 2,6,18,54,162,486,?
- 22. 4,20,35,49,62,74,?
- 23. 10,18,15,23,20,28,?
- 24. 4,10,8,14,12,18,?
- 25 10,15,12,17,14,10,?