Aptitude Questions:  
  
1. Find the least number of students in an exam so that the percentage of successful students should be 76.8%:  
  
(a) 500  
(b) 250  
(c) 125  
(d) 1000  
  
2. Aman sends a certain quantity of rice for 30 girls in a hostel. One day some girls were absent. Therefore, the quantity of rice was spent in the ratio of 6: 5. How many girls were present on that day?  
  
(a) 24  
(b) 20  
(c) 15  
(d) 25  
  
3. What is the ratio of buy price and sell price if there is deep loss of 12 1/(2 )%  
  
(a) 7 : 8  
(b) 8: 7  
(c) 2: 25  
(d) 25: 2  
  
4. Find H.C.F. of 3/5, .36, .24  
  
(a) .04  
(b) 2  
(c) .4  
(d) None of the above  
  
5. Simplify:  
  
(1.3\*1.3\*1.3-1)/(1.3\*1.3+1.3+1)  
  
(a) .3  
(b) 31/3  
(c) ..3  
(d) 1  
  
6. Statements:  
  
All fruits are vegetables. All pencils are vegetables. All vegetables are rats.  
  
Conclusions:  
1. All fruits are rats.  
2. All pencils are rats.  
3. Some rats are vegetables.  
  
A. None follows  
B. Only I and II follow  
C. Only II and III follow  
D. Only I and III follow  
E. All follow  
  
7. The jacket is impervious to water.  
  
A) Dirty  
B) Pure  
C) Impenetrable  
D) Favorable  
  
8. The officer received \_\_\_\_\_ official letter from \_\_\_\_\_ Ministry of IT in \_\_\_\_\_ Central Government.  
  
A) A, the, an  
C) An, the, the  
B) A, an, the  
D) An, an, the  
  
9. Raman is sitting to the immediate left of Harry but not next to Kamal. Mahesh is sitting to the right of Kamal. If the four friends are sitting in a circle who is sitting to the immediate right of Harry?  
  
(1) Mahesh   
(2) Kamal  
(3) Raman   
(4) Harry  
(5) Cannot be determined  
  
10. If 1 is subtracted from the last digit of each of the above numbers the sum of the digits of how many of them are prime numbers?  
  
(1) None   
(2) Two  
(3) One   
(4) Three  
(5) All five  
  
11. If the digits in each of the above numbers are written in reverse order which will be the second highest number?  
  
(1) 251   
(2) 359  
(3) 487   
(4) 526  
(5) 972  
  
12. Find the output of the following program  
  
int \*p,\*q;  
p=(int \*)1000;  
q=(int \*)2000;  
printf("%d",(q-p));  
Ans: 500  
  
13. A power station generates 500MW of power and exhausts 800MW as waste heat into the environment. What is the efficiency of the power station?  
  
a) 61.5%  
b) 38.5%  
c) 62.5%  
d) 23%   
  
14. Among M, N, T, P and R each having different weight, who is the heaviest ?  
I. T is heavier than P and M but lighter than N who is not the heaviest.  
II. M is lighter than P.  
  
15. How is D related to T ?  
I. Ds brother is father of Ts sister.  
II. Ts brother is son of Ds brother.  
  
Technical Questions:  
  
1.  
main()  
{  
{  
unsigned int bit=256;  
printf(%d, bit);  
}  
{  
unsigned int bit=512;  
printf(%d, bit);  
}  
}  
  
a. 256, 256  
b. 512, 512  
c. 256, 512  
d. Compile error  
  
2.  
main()  
{  
int i;  
for(i=0;i<5;i++)  
{  
printf("%d\n", 1L << i);  
}  
}  
  
a. 5, 4, 3, 2, 1  
b. 0, 1, 2, 3, 4  
c. 0, 1, 2, 4, 8  
d. 1, 2, 4, 8, 16  
  
3.  
main()  
{  
signed int bit=512, i=5;  
for(;i;i--)  
{  
printf("%d\n", bit = (bit >> (i - (i -1))));  
}  
}  
  
a. 512, 256, 128, 64, 32  
b. 256, 128, 64, 32, 16  
c. 128, 64, 32, 16, 8  
d. 64, 32, 16, 8, 4  
  
4.  
main()  
{  
signed int bit=512, i=5;  
for(;i;i--)  
{  
printf("%d\n", bit >> (i - (i -1)));  
}  
}  
  
a. 512, 256, 0, 0, 0  
b. 256, 256, 0, 0, 0  
c. 512, 512, 512, 512, 512  
d. 256, 256, 256, 256, 256  
  
5.  
main()  
{  
if (!(1&&0))  
{  
printf("OK I am done.");  
}  
else  
{  
printf(OK I am gone.);  
}  
}  
  
a. OK I am done  
b. OK I am gone  
c. compile error  
d. none of the above  
  
6.  
main()  
{  
if ((1||0) && (0||1))  
{  
printf("OK I am done.");  
}  
else  
{  
printf(OK I am gone.);  
}  
}  
  
a. OK I am done  
b. OK I am gone  
c. compile error  
d. none of the above  
  
7.  
main()  
{  
signed int bit=512, mBit;  
{  
mBit = ~bit;  
bit = bit & ~bit ;  
printf("%d %d", bit, mBit);  
}  
}  
  
a. 0, 0  
b. 0, 513  
c. 512, 0  
d. 0, -513  
8.  
main()  
{  
int i;  
printf("%d", &i)+1;  
scanf("%d", i)-1;  
}  
  
a. Runtime error.  
b. Runtime error. Access violation.  
c. Compile error. Illegal syntax  
d. None of the above  
  
9.  
main(int argc, char \*argv[])  
{  
(main && argc) ? main(argc-1, NULL) : return 0;  
}  
  
a. Runtime error.  
b. Compile error. Illegal syntax  
c. Gets into Infinite loop  
d. None of the above  
  
10.  
main()  
{  
int i;  
float \*pf;  
pf = (float \*)&i;  
\*pf = 100.00;  
printf("%d", i);  
}  
  
a. Runtime error.  
b. 100  
c. Some Integer not 100  
d. None of the above  
  
11.  
main()  
{  
int i = 0xff;  
printf("%d", i<<2);  
}  
  
a. 4  
b. 512  
c. 1020  
d. 1024  
  
12.  
#define SQR(x) x \* x  
main()  
{  
printf("%d", 225/SQR(15));  
}  
  
a. 1  
b. 225  
c. 15  
d. none of the above  
  
13.  
union u  
{  
struct st  
{  
int i : 4;  
int j : 4;  
int k : 4;  
int l;  
}st;  
int i;  
}u;  
  
main()  
{  
u.i = 100;  
printf("%d, %d, %d",u.i, u.st.i, u.st.l);  
}  
  
a. 4, 4, 0  
b. 0, 0, 0  
c. 100, 4, 0  
d. 40, 4, 0  
  
14.  
union u  
{  
union u  
{  
int i;  
int j;  
}a[10];  
int b[10];  
}u;  
  
main()  
{  
printf("%d", sizeof(u));  
printf("%d", sizeof(u.a));  
printf("%d", sizeof(u.a[0].i));  
}  
  
a. 4, 4, 4  
b. 40, 4, 4  
c. 1, 100, 1  
d. 40 400 4  
  
15.  
main()  
{  
int (\*functable[2])(char \*format, ...) ={printf, scanf};  
int i = 100;  
(\*functable[0])("%d", i);  
(\*functable[1])("%d", i);  
(\*functable[1])("%d", i);  
(\*functable[0])("%d", &i);  
}  
  
a. 100, Runtime error.  
b. 100, Random number, Random number, Random number.  
c. Compile error  
d. 100, Random number

1. A can do a piece of work in 4 hours. A and C together can do it in just 2 hours, while B and C together need 3 hours to finish the same work. In how many hours B can complete the work?  
A. 10 hours  
B. 12 hours  
C. 16 hours  
D. 18 hours  
Explanation:  
Work done by A in 1 hour = 1/4  
Work done by B and C in 1 hour = 1/3   
Work done by A and C in 1 hour = 1/2   
Work done by A, B and C in 1 hour = (1/4) +(1/3) = 7/12   
Work done by B in 1 hour = (7/12)– (1/2) = 1/12   
=> B alone can complete the work in 12 hours.   
  
2. A man completes a certain journey by a car. If he covered 30% of the distance at the speed of 20kmph. 60% of the distance at 40km/h and the remaining of the distance at 10 kmph, his average speed is:  
A. 25 km/h  
B. 28 km/h  
C. 30 km/h  
D. 33 km/h  
Explanation:  
Let the total distance be 100 km.  
Average speed = total distance covered/ time taken;   
= 100/ [(30/20) +(60/40) +(10/10)]   
= 100/ [(3/2) +(3/2) +(1)]   
= 100/ [(3+3+2)/2]   
= (100\*2)/8   
= 25 kmph.   
  
3. Average of 80 numbers are 42. When 5 more numbers are included, the average of 85 numbers become 45. Find the average of 5 numbers.  
A. 82  
B. 89  
C. 93  
D. 98  
Explanation:  
Total of 80 numbers = 80\*42 = 3360;  
Now, total of 85 numbers = 85\*45 = 3825;   
Hence, sum of 5 numbers = 3825-3360 = 465;   
Average of five numbers = 465/5 = 93.   
  
4. A shopkeeper expects a gain of 22.5% on his cost price. If in a week, his sale was of Rs. 392, what was his profit?  
A. Rs. 18.20   
B. Rs. 70  
C. Rs. 72   
D. Rs. 88.25  
Explanation:  
C.P. = Rs. (100/122.5 x 392) = Rs. (1000/1225 x 392) = Rs. 320  
Profit = Rs. (392 - 320) = Rs. 72.   
  
5. Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?  
A. 3.6   
B. 6  
C. 18   
D. Cannot be determined  
E. None of these  
Explanation:  
Let rate = R% and time = R years.  
Then, (1200 x R X R)/100 = 432   
=> 12R^2 = 432   
=> R^2 = 36.   
=> R = 6.   
  
6. A tank is filled in 5 hours by three pipes A, B and C. The pipe C is twice as fast as B and B is twice as fast as A. How much time will pipe A alone take to fill the tank?  
A. 20 hours   
B. 25 hours  
C. 35 hours   
D. Cannot be determined  
E. None of these  
Explanation:  
Suppose pipe A alone takes x hours to fill the tank.  
Then, pipes B and C will take x/2 and x/4 hours respectively to fill the tank.   
.'. 1/x + 2/x + 4/x = 1/5   
=> 7/x = 1/5.   
=> x = 35 hrs.   
  
7. Bag contain 10 back and 20 white balls, one ball is drawn at random. What is the probability that ball is white?  
A. 1  
B. 2/3  
C. 1/3  
D. 4/3  
Explanation:  
According to the question,  
Total number of cases = 10 + 20 = 30.  
And, Favorable cases = 20.   
So, the required probability = 20/30 = 2/3.   
  
8. In a mixture 60 liters, the ratio of milk and water 2: 1. If this ratio is to be 1: 2, then the quantity of water to be further added is:  
A. 20 liters   
B. 30 liters  
C. 40 liters   
D. 60 liters  
Explanation:  
Quantity of milk = 60 x 2/3 liters = 40 liters.  
Quantity of water in it = (60- 40) liters = 20 liters.   
New ratio = 1: 2   
Let quantity of water to be added further be x liters.   
  
Then, milk: water = 40/(20+x).   
Now, 40/(20+x) = 1/2.   
= >20 + x = 80   
=> x = 60.   
.'. Quantity of water to be added = 60 liters.   
  
9. A is two years older than B who is twice as old as C. If the total of the ages of A, B and C be 27, the how old is B?  
A. 7   
B. 8  
C. 9   
D. 10  
E. 11  
Explanation:  
Let C's age be x years. Then, B's age = 2x years. A's age = (2x + 2) years.  
=> (2x + 2) + 2x + x = 27   
=> 5x = 25   
=> x = 5.   
Hence, B's age = 2x = 10 years.   
  
10. How many 6-digit telephone numbers can be formed if each number starts with 35 and no digit appears more than once?  
A. 720   
B. 360  
C. 1420   
D. 1680  
Explanation:  
The first two places can only be filled by 3 and 5 respectively and there is only 1 way for doing this.  
Given that no digit appears more than once. Hence we have 8 digits remaining (0,1,2,4,6,7,8,9)   
So, the next 4 places can be filled with the remaining 8 digits in 8P4 ways.   
Total number of ways = 8P4   
=> 8 × 7 × 6 × 5 = 1680.

**LG Logical Reasoning Test**

11. Blood Relation:  
Neelam, who is Rohit's daughter, says to Indu, 'Your mother Reeta is the younger sister of my father, who is the third child of Sohanji'. How is Sohanji related to Indu?  
A. Maternal-uncle  
B. Father  
C. Grandfather  
D. Father-in-law  
E. None of these  
Answer: C.  
  
12. Blood Relation:  
Introducing a man, a woman said, 'He is the only son of my mother's mother'. How is the woman related to that man?  
A. Mother  
B. Cousin  
C. Niece  
D. Aunt  
E. None of these  
Answer: C.  
  
13. Coding Decoding:  
If BRAIN is written as LAIPT, how can TEMPLE be written in that code?  
A. UFNQMF  
B. CMSVRK  
C. GVNKOV  
D. DNUWRJ  
Answer: D.  
  
14. Direction sense:  
A watch reads 4.30. If the minute hand points East, in what direction will the hour hand point?  
A. South-East  
B. North-East  
C. North  
D. North-West  
E. None of these  
Answer: B.  
  
15. Odd Man Out:  
A. Valley  
B. River  
C. Mountain  
D. Tower  
E. Sea  
Explanation:  
All except Tower are natural geographical features, while tower is manmade.  
  
16. Odd Man Out:  
835, 734, 642, 751, 853, 981, 532  
A. 751   
B. 853  
C. 981   
D. 532  
Explanation:  
In each number except 751, the difference of third and first digit is the middle one.  
  
17. Odd Man Out:  
582, 605, 588, 611, 634, 617, 600  
A. 634   
B. 611  
C. 605   
D. 600  
Explanation:  
Alternatively, 23 is added and 17 is subtracted from the terms. So, 634 is wrong.  
  
18. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to the group?   
A. Boy   
B. Girl   
C. Lady  
D. Man   
E. Child  
Explanation:  
All except "Child" denotes gender of a person.  
  
19. Sitting Arrangement:  
Read the following information carefully and the questions given below:   
(1) A, B, C, D, E, F and G are sitting in a row facing north.   
(2) C is immediate right of G   
(3) The person who is fourth to the right of c, is on one of the ends.   
(4) Only one person between B and C   
(5) G and D are not neighbors.   
What is the position of B?  
A. Between E and C   
B. At the right end  
C. At the left end   
D. Fifth to the right of c  
Answer: C.  
  
20. Find the missing term of the series:  
1, 6, 15, ..?.. , 45, 66, 91  
A. 25  
B. 26  
C. 27  
D. 28  
Explanation:  
The pattern is + 5, + 9, ..., + 21, + 25.  
.'. Missing number = 15 + 13 = 28.

**LG Verbal Ability Test**

The impact of technical advancement in armaments on man, needs to be analyzed with a rational mind, and heart free from prejudices of any kind towards modernization. The most noticeable impact of this development certainly has been the loss of immunity from violence for successive generations ever since the invention of gunpowder. In modern times, the presence of technically advanced arms, not only at the fronts but also among the civilian population, has vastly undermined the value of human life, and endangered the very entity of those virtues of self-restraint and discretion, on which. a peaceful and amiable society rests. However, an unbiased view of the present scenario, would refrain one from attributing the rising trends of violence to the availability of technically superior weapons, for one must not overlook the fact that Necessity is the mother of invention. Every stage in the development of armaments has been marked by its distinct impact on society. When man fought with stones and his bare hands, the society was not yet compact. The discovery of metal and the use of spears, knives and arrows indicate the stage of the formation of small kingdoms. Fire continued to be an effective weapon of destruction. When man introduced the cavalry into the army and improved the strategies of making war, some small kingdoms gave away to form empires, but with no revolutionary advances in armaments forthcoming, the political structure of society remained mare or less stagnant for the many coming centuries. The next significant development was the use of gunpowder, which could be used to perform acts which were then thought to be impossible. Gunpowder was used to form the ammunition of several guns and canons. This sudden advances in weaponry not only facilitated the control of a large mass of people by relatively few armed men that helping to form strong empires, but the availability of the new technology to a select few nations enabled the formation of colonies in continents which did not have access to the modernized technologies of warfare. Modern technological advances in armaments aided the formation of nation states in Europe. The extensive use of the fire-power lent a lethal edge to the naval power which proved to be the greatest asset to any nation in the 19th century. Small United Nations States of Europe with strong navies, modern arms and disciplined men gained control of lands in foreign continents far greater in areas than the parent countries.  
  
21. Necessity is the mother of invention means  
A. where there is mother there IS invention  
B. when necessity arises invention IS done  
C. most of the invention are preplanned  
D. nothing happens without creating congenial environment  
Answer: B.  
  
22. The invention of modern weapons has resulted into  
A. loss of immunity from war in the society  
B. arms race among the nations  
C. successive wars for the last two centuries.  
D. loss of life and property every now and then   
Answer: A.  
  
23. Small kingdoms turned into big empires, after  
A. the invention of cavalry and canons and its introduction into the army  
B. the introduction of nuclear arms into the army  
C. the end of the use of knives, arrows and swords  
D. the end of the 19th century  
Answer: A.  
  
24. Sentence correction:  
They continued to work in the field despite of the heavy rains.  
A. even though there is heavy rain  
B. although heavily rains  
C. in spite the heavy rains  
D. even though it rained heavily  
E. No correction required  
Answer: D.  
  
25. Which one of the following word is correctly spelt?  
A. Overlapped  
B. Overlaped  
C. Overleped  
D. Overelaped  
Answer: A.  
  
26. Fill in the blank:  
I was feeling rather\_\_\_\_\_\_\_\_\_\_when i\_\_\_\_\_\_\_\_\_a yellow envelope on the table.  
A. Happy, Discerned  
B. Honored, feasible  
C. miserable, spotted  
D. ecstatic, perceived  
E. None of these  
Answer: C.  
  
27. Fill in the blank:  
Comparability across 2001 and 2011 becomes\_\_\_\_\_\_\_\_\_because the definition of disability wasn’t identical.  
A. desirable  
B. unenviable  
C. easier  
D. blocked  
Answer: B.  
  
28. Synonym:  
HINDER  
A. lose  
B. loose  
C. despair  
D. check  
Answer: D.  
  
29. Synonym:  
WRETCHED  
A. twisted  
B. forced  
C. miserable  
D. increased  
Answer: C.  
  
30. Error Spotting:  
Since the lion was (1)/very illness, all the other animals (2)/in the forest gave the lion (3)/ a lot of medicines. (4)  
A. 1  
B. 2  
C. 3  
D. 4  
E. No error  
Explanation:  
Here, very ill, all the other animals should be used and word ill is an Adjective while illness is a Noun.