PERSONALITY DEVELOPMENT ASSOCIATION
MADRAS INSTITUTE OF TECHNOLOGY
ANNA UNIVERSITY – CHENNAI

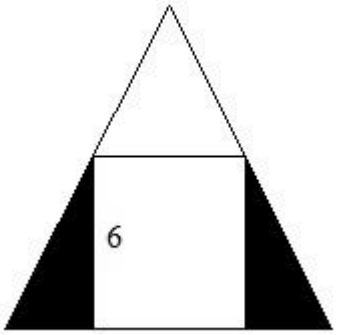
"DISCOVER THYSELF"

Aptitude Test No.:01 **Date:28.07.2017**

1. $x= a^2b^3c^4$ where in x is +ve with a,b,c as prime factors. How many other factors does x have which are greater than 1?

a)52 b)56 c)60 d)64

2. A square with side 6 is inscribed in an equi-triangle as shown. What is the area of shaded region?



a)6√3 b)12√3 c)24√3 d)6+6√3 e)12+12√3

3. $(n-4)(n^2-2n-15)=0$. What are all the possible values of n more than one?

a)-5 b)-3 c)3 d)4 e)5

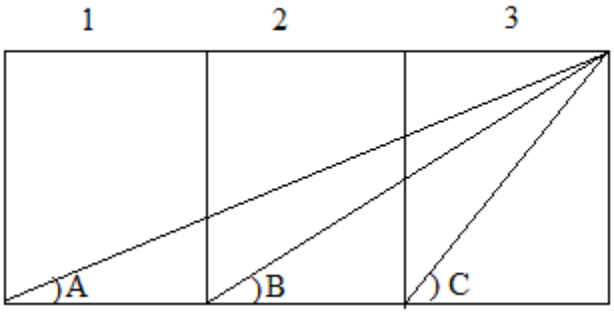
4. Sum of 5 digits of a number is 41. Find the probability that such a number is divisible by 11?

a)2/15 b)11/36 c)3/35 d)6/35

5. Two squares are chosen at random on a chessboard. What is the probability that they have a side in common?

a)1/8 b)64/4032 c)63/64 d)1/9

6. 1, 2, 3 are squares.



a) A+B>C b)A+B<C c) A+B=C d) No relation

7. J has 228 marbles more than K. If B gives each of them 133 marbles, J will have twice as many marbles as K. How many marbles does J have?

a)95 b)190 c)228 d)323 e)456

8. What is the unit digit in $\{(6347)^{1793} \times (625)^{317} \times (341)^{491}\}$?

a)0 b)2 c)3 d)5

9. A circle touches the hypotenuse of a right angle triangle at its middle point and assess through the mid-point of the shorter side. If a and b (a<b) be the length of the sides, then the radius is

a)$b(\sqrt{(a^2+b^2)})/a$ b) $b(\sqrt{(a^2-b^2)})/2a$ c) $b(\sqrt{(a^2+b^2)})/4a$ d) None of these

10. It is being given that $(2^{32}+1)$ is completely divisible by a whole number. Which of the following numbers is completely divisible by this number?

a) $(2^{16}+1)$ b) $(2^{16}-1)$ c) (7×2^{23}) d) $(2^{96}+1)$

The following table gives the percentage of marks obtained by seven students in six , different subjects in an examination. Study the table and answer the questions(11 to 15) based on it. The numbers in the brackets give the maximum marks in each subject.

\(Max. Marks) Student	Maths (150)	Chemistry (130)	Physics (120)	Geography (100)	History (60)	Computer science (40)
Ayush	90	50	90	60	70	80
Aman	100	80	80	40	80	70
Sajal	90	60	70	70	90	70
Rohit	80	65	80	80	60	60
Muskan	80	65	85	95	50	90
Tanvi	70	75	65	85	40	60
Tharun	65	35	50	77	80	80

11. What was the aggregate of marks obtained by Sajal in all the six subjects?
(a) 409 (b) 419 (c) 429 (d) 439 (e) 449
12. What is the overall percentage of Thrun?
(a) 52.5% (b) 55% (c) 60% (d) 63% (e) 64.5%
13. What are the average marks obtained by all the seven students in Physics? (rounded off to two digits after decimal)
(a) 77.26 (b) 89.14 (c) 91.37 (d) 96.11 (e) 103.21
14. The number of students who obtained 60% and above marks in all the Subjects is :
(a) 1 (b) 2 (c) 3 (d) None of these
15. In which subject is the overall percentage the best?
(a) History (b) Maths (c) Physics (d) Chemistry (e) Geography

16. What is the output of the program?

```
Main()
{
int x=10,y=10,z=5,i;
i=x<y<z;
Printf("%d",i)
}
```

a)0 b)1 c)10 d)5 e)none of these

17. What is the output of the program?

```
#define x 5+2
Main()
int i;
i=x*x*x;
printf("%d",i)
}
```

a)343 b)125 c)compilation error d)none of these

18. find the output of the program

```
main()
{
float me = 1.1;
double you = 1.1;
if(me==you)
printf("I love you");
else
printf("I hate you");
}
```

a) I love you b) I hate you c) compilation error d)none of these

19. find the output of the program

```
 main()
{
extern int i;
i=20;
printf("%d",i);
}
```

a)20 b)21 c)compilation error d)linker error

20. Find the output of the program

```
main()
{
char *p;
printf("%d, %d ",sizeof(*p),sizeof(p));
}
```

a)2, 2 b)1, 2 c)2, 1 d)1, 1 e)none of these