# 10 ${ }^{\text {th }}$ CLASS MARCH - 2020 <br> www.Manabadi.co.in ww MATHS - II <br> WWW.Manabadi 

ww Time : 2.45 Hours]
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[Max.Marks: 50
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12 \times 1 / 2=6 \mathrm{M}
$$

## 2. Each question carries $1 / 2$ mark.

1.di.cFind the mean of the data $-5,3,0,4,8$ ?
2. di. What is the slope of $y$-axis?
3. . If. If $\triangle A B C \sim \triangle D E F, \angle A+\angle C=100^{\circ}$, then $\angle E=$ ?
4. If $P(E)=0.05$ then find $P(\bar{E})$ ?
5. di. Find the value of $A+B$ if $\tan A=\cot B$ ?
6.di. What is the angle in minor segment?
7.di.cWhat is the probability of getting 53 Sundays in a leap year?
8. di.cWhat is the meeting point of lines $y=-4$ and $y$-axis?
9.di. What is the $x$-coordinate of meeting point of L.C.F and G.C.F curves?
10. d . What is the probability of getting spade card of hearts, if card chosen randomly from pack suit?
11. What is the point of concurrence of the perpendicular bisectors of sides of a triangle?
12. What do we call the parallelogram circumscribing a circle?
www.Manabadi.co.in www.Manabadi.co.in www.Man Section-II
Www.Mana Note :1. Answer all the questions.
www. Manabadi. $\mathrm{CO}_{2}$. Each question carries 1 mark.
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13. If a square has its side 7 cm then what is the length of its diagonal?
14. If $\sin (90-A)=1 / 2$ then what is the value of $A$ ?
15. If area of triangle $A B D=12 \mathrm{~cm}^{2}$ then what is the area of $\triangle A B C$ if $A D$ is its median?

16. Find the distance between two points $(1,-2),(-3,2)$ ?
17. What are the measures of central tendency?
18. If a die is thrown once then what is the probability of getting even prime number?
19. Define angle of elevation?
20. What are the conditions required for two polygons become similar?

## Section-III

www. Mana Note : 1, Answer all the questions.
2. Each question carries 2 marks. www.Manabadi.co.in
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www. $8 \times 2=16 \mathrm{M}$
21. $\mathrm{Ci} . \triangle A B C \sim \triangle P Q R$ and their areas are respectively $64 \mathrm{~cm}^{2}$ and $121 \mathrm{~cm}^{2}$. If $E F=15.4 \mathrm{~cm}$, then find $B C$ ?
22. i. Find the area of sector having angle $90^{\circ}$ and radius 7 cm ?

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23. If If mean and median of data are respectively 70.5 and 71.4 then, find mode?
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24. What is the probability of two friends having the
i) Same birthday
ii) different birthday in non-leap year?
www. Manabadi.co. This Question paper is purely for preparation purpose only. Manabadi.com is www.Manabadi.co.in no where claiming this to be the Main ExaminationdPaper.
www．Mana 25．．Find the value of＇$k$＇，if the given points are $(k, 1),(-2,0),(1,2)$ are collinear？ www．Manabadi．co．in
26．Di．cIf $\tan 2 A=\cot (A-27)$ ，where $2 A$ is acute angle find the value of $A$ ． www．Manabadi．co．in

27． ．State the Thale＇s theorem？
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28．Define sure event？Write one example for it
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www．Mana Note：1．Answer all the questions．
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3．There is an internal choice for each question
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www．Manabadi．co．in www． $\mathbf{5 \times 4} \mathbf{~ = ~} \mathbf{2 0} \mathbf{~ M}$
29．a）Show that the given points $(1,7),(4,2),(-1,-1)$ and $(-4,+4)$ are the vertices of square．
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b）A chord of circle of radius 10 cm subtends a right angle at the centre．Find the area of the corresponding

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i）Minor segment nabadi．co in ii）Major segment $(\pi=3.14)$ $\qquad$ www．Manabadi．co．in
a）If $\sec \theta+\tan \theta=P$ ，then show that $\operatorname{Sin} \theta=\frac{P^{2}-1}{p^{2}+1}$
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b）$B L$ and $C M$ are medians of a triangle $A B C$ right angle at A ww．Manabadi．co．in www Manabadi．co in prove that $4\left(\mathrm{BL}^{2}+\mathrm{CM}^{2}\right)=5 \mathrm{BC}^{2} \mathrm{Www}$ ．Manabadi．co．in Www．Manabadi．co．in www．Manabadi．co．in www．Manabadi．c prove that $4\left(\mathrm{BL}^{2}+\mathrm{CM}^{2}\right)=5 \mathrm{BC}^{2}$
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31．a）From a deck of 52 playing cards club cards of King，Ace and 10 were removed and remaining cards were well shuffled．If a card is drawn at random then find the probability of
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| www．Manabadi．c | vi）club／lanabadi ii）Ace | www．Miii）Diamond king | www．Manabiv）Club 5 |  |
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| www．Manabadi．c）Construct a $\triangle P Q R$ ，if $P Q=5.5 \mathrm{~cm}, \angle \mathrm{Q}=60^{\circ} \angle \mathrm{P}=70^{\circ}$ ．Then draw another friangle，whose sides are ${ }^{\text {cose }}$ ．ir |  |  |  |  |
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| times of the corresponding sides of $\triangle P Q R$ ？ |  |  |  |  |

32．i．a）Construct two tangents to a circle of radius 6 cm from a point lie out side to it at a distance 10 cm ？
b）Find the trisection points of the line segment joined by the points $(-3,3)$ and $(3,-3)$
33．a）If the median of 60 observations given below is 28.5 ，then find the value of $x$ and $y$ ？

| Class interval | 0－10 | 10－20 | 20－30 | 30－40 | 40－50 | 50－60 |
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| Frequency | nab 5 di．c | in X wwv | － 20 | 15 | ww．Y Mana | badi． 5 ．in |

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b）An observer is flying in an aeroplane which is at a height of 900 m from the ground and observer two ships which are in the same direction at an angles of depression $60^{\circ}$ and $30^{\circ}$ respectively．Find the distance between the two ships？

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