

Ravi Maths Tuition Centre

Complex Numbers

12th Standard

Maths

JOIN 10TH & 12TH PAID WHATSAPP GROUP

DEC 1 2025 TO TILL FINAL 2026 MARCH EXAM
UPLOAD DAILY ONE SUBJECT FULL TEST PAPER

ONE TIME FEES RS.750 ONLY

ALL TEST PAPERS WITH ANSWERS UPLOAD IN YOUR WHATSAPP

FREE USERS CHECK ALL SAME PAPERS UPLOAD IN MY WEBSITES. YOU CAN DOWNLOAD AND PRACTICE

RAVI TEST PAPERS & NOTES

WHATSAPP – 8056206308

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

Multiple Choice Question

- 1) $i^n + i^{n+1} + i^{n+2} + i^{n+3}$ is
(a) 0 (b) 1 (c) -1 (d) i
- 2) The value of $\sum_{n=1}^{13} (i^n + i^{n-1})$ is
(a) $1+i$ (b) i (c) 1 (d) 0
- 3) The area of the triangle formed by the complex numbers z , iz and $z+iz$ in the Argand's diagram is
(a) $\frac{1}{2}|z|^2$ (b) $|z|^2$ (c) $\frac{3}{2}|z|^2$ (d) $2|z|^2$
- 4) The conjugate of a complex number is $\frac{1}{i-2}$. Then the complex number is
(a) $\frac{1}{i+2}$ (b) $\frac{-1}{i+2}$ (c) $\frac{-1}{i-2}$ (d) $\frac{1}{i-2}$
- 5) If $z = \frac{(\sqrt{3}+i)^3(3i+4)^2}{(8+6i)^2}$, then $|z|$ is equal to
(a) 0 (b) 1 (c) 2 (d) 3
- 6) If z is a non zero complex number, such that $2iz^2 = \bar{z}$ then $|z|$ is
(a) $\frac{1}{2}$ (b) 1 (c) 2 (d) 3
- 7) If $|z - 2 + i| \leq 2$, then the greatest value of $|z|$ is
(a) $\sqrt{3}-2$ (b) $\sqrt{3}+2$ (c) $\sqrt{5}-2$ (d) $\sqrt{5}+2$
- 8) If $|z - \frac{3}{z}| = 2$, then the least value $|z|$ is
(a) 1 (b) 2 (c) 3 (d) 5
- 9) If $|z| = 1$, then the value of $\frac{1+z}{1+\bar{z}}$ is
(a) z (b) $\bar{z}$ (c) $\frac{1}{z}$ (d) 1
- 10) The solution of the equation $|z| - z = 1 + 2i$ is
(a) $\frac{3}{2} - 2i$ (b) $-\frac{3}{2} + 2i$ (c) $2 - \frac{3}{2}i$ (d) $2 + \frac{3}{2}i$
- 11) If $|z_1| = 1$, $|z_2| = 2$, $|z_3| = 3$ and $|9z_1z_2 + 4z_1z_3 + z_2z_3| = 12$, then the value of $|z_1+z_2+z_3|$ is
(a) 1 (b) 2 (c) 3 (d) 4
- 12) If z is a complex number such that $z \in \mathbb{C} \setminus \mathbb{R}$ and $z + \frac{1}{z} \in \mathbb{R}$, then $|z|$ is
(a) 0 (b) 1 (c) 2 (d) 3
- 13) z_1, z_2 and z_3 are complex number such that $z_1 + z_2 + z_3 = 0$ and $|z_1| = |z_2| = |z_3| = 1$ then $z_1^2 + z_2^2 + z_3^2$ is
(a) 3 (b) 2 (c) 1 (d) 0

TN 12TH STUDY MATERIALS & MODEL PAPERS

CHAPTERWISE MATERIALS		CHAPTERWISE SAMPLE PAPERS	
TAMIL	RS.350		
ENGLISH	RS.350		
MATHS	RS.350	150 TEST PAPERS	RS.350
PHYSICS	RS.350	100 TEST PAPERS	RS.350
CHEMISTRY	RS.350	104 TEST PAPERS	RS.350
BIOLOGY	RS.350	123 TEST PAPERS	RS.350
COMPUTER SCI	RS.350	88 TEST PAPERS	RS.350
ACCOUNTS	RS.350	55 TEST PAPERS	RS.350
COMMERCE	RS.350	63 TEST PAPERS	RS.350
ECONOMICS	RS.350	60 TEST PAPERS	RS.350
BUSINESS MATHS	RS.350	100 TEST PAPERS	RS.350
COMPUTER APPLICATION MCQS 2 3 5 MARKS QUS ANS AVAILABLE RS.250			
BUY ANY 4 SUBJECTS PDF COST RS.1000			

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

RAVI TEST PAPERS & NOTES, WHATSAPP – 8056206308

MINIMUM LEARNING MATERIALS COST RS.100 PER SUBJECT

- 14) If $\frac{z-1}{z+1}$ is purely imaginary, then $|z|$ is
(a) $\frac{1}{2}$ (b) 1 (c) 2 (d) 3
- 15) If $z = x + iy$ is a complex number such that $|z+2| = |z-2|$, then the locus of z is
(a) real axis (b) imaginary axis (c) ellipse (d) circle
- 16) The principal argument of $\frac{3}{-1+i}$ is
(a) $-\frac{5\pi}{6}$ (b) $-\frac{2\pi}{3}$ (c) $-\frac{3\pi}{4}$ (d) $-\frac{\pi}{2}$
- 17) The principal argument of $(\sin 40^\circ + i \cos 40^\circ)^5$ is
(a) -110° (b) -70° (c) 70° (d) 110°
- 18) If $(1+i)(1+2i)(1+3i)\dots(1+ni) = x + iy$, then $2 \cdot 5 \cdot 10 \dots (1+n^2)$ is
(a) 1 (b) i (c) x^2+y^2 (d) $1+n^2$
- 19) If $\omega \neq 1$ is a cubic root of unity and $(1+\omega)^7 = A + B\omega$, then (A, B) equals
(a) (1, 0) (b) (-1, 1) (c) (0, 1) (d) (1, 1)
- 20) The principal argument of the complex number $\frac{(1+i\sqrt{3})^2}{4i(1-i\sqrt{3})}$ is
(a) $\frac{2\pi}{3}$ (b) $\frac{\pi}{6}$ (c) $\frac{5\pi}{6}$ (d) $\frac{\pi}{2}$
- 21) If α and β are the roots of $x^2+x+1=0$, then $\alpha^{2020} + \beta^{2020}$ is
(a) -2 (b) -1 (c) 1 (d) 2
- 22) The product of all four values of $\left(\cos \frac{\pi}{3} + i \sin \frac{\pi}{3}\right)^{\frac{3}{4}}$ is
(a) -2 (b) -1 (c) 1 (d) 2
- 23) If $\omega \neq 1$ is a cubic root of unity and $\begin{vmatrix} 1 & 1 & 1 \\ 1 & -\omega^2 - 1 & \omega^2 \\ 1 & \omega^2 & \omega^7 \end{vmatrix} = 3k$, then k is equal to
(a) 1 (b) -1 (c) $\sqrt{3i}$ (d) $-\sqrt{3i}$
- 24) The value of $\left(\frac{1+\sqrt{3}i}{1-\sqrt{3}i}\right)^{10}$ is
(a) $cis \frac{2\pi}{3}$ (b) $cis \frac{4\pi}{3}$ (c) $-cis \frac{2\pi}{3}$ (d) $-cis \frac{4\pi}{3}$
- 25) If $\omega = cis \frac{2\pi}{3}$, then the number of distinct roots of $\begin{vmatrix} z+1 & \omega & \omega^2 \\ \omega & z+\omega^2 & 1 \\ \omega^2 & 1 & z+\omega \end{vmatrix} = 0$
(a) 1 (b) 2 (c) 3 (d) 4
- 26) The value of $(1+i)(1+i^2)(1+i^3)(1+i^4)$ is _____
(a) 2 (b) 0 (c) 1 (d) i
- 27) If $\sqrt{a+ib} = x + iy$, then possible value of $\sqrt{a-ib}$ is _____
(a) x^2+y^2 (b) $\sqrt{x^2+y^2}$ (c) $x+iy$ (d) $x-iy$
- 28) If, $i^2 = -1$, then $i^1 + i^2 + i^3 + \dots$ up to 1000 terms is equal to _____
(a) 1 (b) -1 (c) i (d) 0

JOIN 10TH & 12TH PAID WHATSAPP GROUP

DEC 1 2025 TO TILL FINAL 2026 MARCH EXAM
UPLOAD DAILY ONE SUBJECT FULL TEST PAPER

ONE TIME FEES RS.750 ONLY

ALL TEST PAPERS WITH ANSWERS UPLOAD IN YOUR WHATSAPP

FREE USERS CHECK ALL SAME PAPERS UPLOAD IN MY WEBSITES. YOU CAN DOWNLOAD AND PRACTICE

RAVI TEST PAPERS & NOTES

WHATSAPP – 8056206308

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

- 29) If $z = \cos \frac{\pi}{4} + i \sin \frac{\pi}{6}$, then _____
 (a) $|z| = 1$, $\arg(z) = \frac{\pi}{4}$ (b) $|z| = 1$, $\arg(z) = \frac{\pi}{6}$ (c) $|z| = \frac{\sqrt{3}}{2}$, $\arg(z) = \frac{5\pi}{24}$
 (d) $|z| = \frac{\sqrt{3}}{2}$, $\arg(z) = \tan^{-1}\left(\frac{1}{\sqrt{2}}\right)$
- 30) If $a = \cos \theta + i \sin \theta$, then $\frac{1+a}{1-a} =$ _____
 (a) $\cot \frac{\theta}{2}$ (b) $\cot \theta$ (c) $i \cot \frac{\theta}{2}$ (d) $i \tan \frac{\theta}{2}$
- 31) If $a = 3+i$ and $z = 2-3i$, then the points on the Argand diagram representing az , $3az$ and $-az$ are _____
 (a) Vertices of a right angled triangle (b) Vertices of an equilateral triangle
 (c) Vertices of an isosceles (d) Collinear
- 32) The least positive integer n such that $\left(\frac{2i}{1+i}\right)^n$ is a positive integer is _____
 (a) 16 (b) 8 (c) 4 (d) 2
- 33) If $a = 3 + i$ and $z = 2 - 3i$, then the points on the Argand diagram representing az , $3az$ and $-az$ are _____
 (a) Vertices of a right angled triangle (b) Vertices of an equilateral triangle
 (c) Vertices of an isosceles (d) Collinear
- 34) If $z = \frac{1}{(2+3i)^2}$ then $|z| =$ _____
 (a) $\frac{1}{13}$ (b) $\frac{1}{5}$ (c) $\frac{1}{12}$ (d) none of these
- 35) If $z = 1 - \cos \theta + i \sin \theta$, then $|z| =$ _____
 (a) $2 \sin \frac{\theta}{2}$ (b) $2 \cos \frac{\theta}{2}$ (c) $2 |\sin \frac{\theta}{2}|$ (d) $2 |\cos \frac{\theta}{2}|$
- 36) If $z = \frac{1}{1 - \cos \theta - i \sin \theta}$, then $\operatorname{Re}(z) =$ _____
 (a) 0 (b) $\frac{1}{2}$ (c) $\cot \frac{\theta}{2}$ (d) $\frac{1}{2} \cot \frac{\theta}{2}$
- 37) If $x + iy = \frac{3+5i}{7-6i}$, then $y =$ _____
 (a) $\frac{9}{85}$ (b) $-\frac{9}{85}$ (c) $\frac{53}{85}$ (d) none of these
- 38) The amplitude of $\frac{1}{i}$ is equal to _____
 (a) 0 (b) $\frac{\pi}{2}$ (c) $-\frac{\pi}{2}$ (d) π
- 39) The value of $(1+i)^4 + (1-i)^4$ is _____
 (a) 8 (b) 4 (c) -8 (d) -4
- 40) The complex number z which satisfies the condition $\left|\frac{1+z}{1-z}\right| = 1$ lies on _____
 (a) circle $x^2 + y^2 = 1$ (b) x-axis (c) y-axis (d) the lines $x+y = 1$
- 41) If $z = a + ib$ lies in quadrant then $\frac{\bar{z}}{z}$ also lies in the III quadrant if _____
 (a) $a > b > 0$ (b) $a < b < 0$ (c) $b < a < 0$ (d) $b > a > 0$
- 42) $\frac{1+e^{-i\theta}}{1+e^{i\theta}} =$ _____
 (a) $\cos \theta + i \sin \theta$ (b) $\cos \theta - i \sin \theta$ (c) $\sin \theta - i \cos \theta$ (d) $\sin \theta + i \cos \theta$
- 43) If $z^n = \cos \frac{n\pi}{3} + i \sin \frac{n\pi}{3}$, then $z_1, z_2, \dots, z_6$ is _____
 (a) 1 (b) -1 (c) i (d) $-i$
- 44) If $x = \cos \theta + i \sin \theta$, then the value of $x^n + \frac{1}{x^n}$ is _____
 (a) $2 \cos \theta$ (b) $2i \sin n\theta$ (c) $2i \sin \theta$ (d) $2i \cos n\theta$

JOIN 10TH & 12TH PAID WHATSAPP GROUP

DEC 1 2025 TO TILL FINAL 2026 MARCH EXAM
UPLOAD DAILY ONE SUBJECT FULL TEST PAPER

ONE TIME FEES RS.750 ONLY

ALL TEST PAPERS WITH ANSWERS UPLOAD IN YOUR WHATSAPP

FREE USERS CHECK ALL SAME PAPERS UPLOAD IN MY WEBSITES. YOU CAN DOWNLOAD AND PRACTICE

RAVI TEST PAPERS & NOTES

WHATSAPP – 8056206308

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

TN 12TH STUDY MATERIALS & MODEL PAPERS

CHAPTERWISE MATERIALS		CHAPTERWISE SAMPLE PAPERS	
TAMIL	RS.350		
ENGLISH	RS.350		
MATHS	RS.350	150 TEST PAPERS	RS.350
PHYSICS	RS.350	100 TEST PAPERS	RS.350
CHEMISTRY	RS.350	104 TEST PAPERS	RS.350
BIOLOGY	RS.350	123 TEST PAPERS	RS.350
COMPUTER SCI	RS.350	88 TEST PAPERS	RS.350
ACCOUNTS	RS.350	55 TEST PAPERS	RS.350
COMMERCE	RS.350	63 TEST PAPERS	RS.350
ECONOMICS	RS.350	60 TEST PAPERS	RS.350
BUSINESS MATHS	RS.350	100 TEST PAPERS	RS.350
COMPUTER APPLICATION MCQS 2 3 5 MARKS QUS ANS AVAILABLE RS.250			
BUY ANY 4 SUBJECTS PDF COST RS.1000			

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

RAVI TEST PAPERS & NOTES, WHATSAPP – 8056206308

MINIMUM LEARNING MATERIALS COST RS.100 PER SUBJECT

- 45) If ω is the cube root of unity, then the value of $(1-\omega)(1-\omega^2)(1-\omega^4)(1-\omega^8)$ is _____
 (a) 9 (b) -9 (c) 16 (d) 32
- 46) The points represented by $3 - 3i$, $4 - 2i$, $3 - i$ and $2 - 2i$ form _____ in the argand plane.
 (a) collinear points (b) Vertices of a parallelogram (c) Vertices of a rectangle
 (d) Vertices of a square
- 47) $(1+i)^3 =$ _____
 (a) $3 + 3i$ (b) $1 + 3i$ (c) $3 - 3i$ (d) $2i - 2$
- 48) $\frac{(\cos\theta + i\sin\theta)^6}{(\cos\theta - i\sin\theta)^5} =$ _____
 (a) $\cos 11\theta - i\sin 11\theta$ (b) $\cos 11\theta + i\sin 11\theta$ (c) $\cos\theta + i\sin\theta$ (d) $\cos\frac{6\theta}{5} + i\sin\frac{6\theta}{5}$
- 49) If $a = \cos\alpha + i\sin\alpha$, $b = -\cos\beta + i\sin\beta$ then $(ab - \frac{1}{ab})$ is _____
 (a) $-2i\sin(\alpha - \beta)$ (b) $2i\sin(\alpha - \beta)$ (c) $2\cos(\alpha - \beta)$ (d) $-2\cos(\alpha - \beta)$
- 50) The conjugate of $\frac{1+2i}{1-(1-i)^2}$ is _____
 (a) $\frac{1+2i}{1-(1-i)^2}$ (b) $\frac{5}{1-(1-i)^2}$ (c) $\frac{1-2i}{1+(1+i)^2}$ (d) $\frac{1+2i}{1+(1-i)^2}$
- 51) The modular of $\frac{(-1+i)(1-i)}{1+i\sqrt{3}}$ is _____
 (a) $\sqrt{2}$ (b) 2 (c) 1 (d) $\frac{1}{2}$
- 52) The value of $\frac{(\cos 45^\circ + i\sin 45^\circ)^2(\cos 30^\circ - i\sin 30^\circ)}{\cos 30^\circ + i\sin 30^\circ}$ is _____
 (a) $\frac{1}{2} + i\frac{\sqrt{3}}{2}$ (b) $\frac{1}{2} - i\frac{\sqrt{3}}{2}$ (c) $-\frac{\sqrt{3}}{2} + \frac{1}{2}$ (d) $\frac{\sqrt{3}}{2} + \frac{1}{2}$
- 53) If $x = \cos\theta + i\sin\theta$, then $x^n + \frac{1}{x^n}$ is _____
 (a) $2\cos n\theta$ (b) $2i\sin n\theta$ (c) $2^n\cos\theta$ (d) $2^n i\sin\theta$
- 54) If z_1, z_2, z_3 are the vertices of a parallelogram, then the fourth vertex z_4 opposite to z_2 is _____
 (a) $z_1 + z_2 - z_2$ (b) $z_1 + z_2 - z_3$ (c) $z_1 + z_2 - z_3$ (d) $z_1 - z_2 - z_3$
- 55) If $x_r = \cos\left(\frac{\pi}{2^r}\right) + i\sin\left(\frac{\pi}{2^r}\right)$ then $x_1, x_2, x_3 \dots x_\infty$ is _____
 (a) $-\infty$ (b) -2 (c) -1 (d) 0
- 56) If $z = x + iy$, $x, y \in R$ and $3x + (3x - y)i = 4 - 6i$ then $z =$ _____
 (a) $\frac{4}{3} + i10$ (b) $\frac{4}{3} - i10$ (c) $-\frac{4}{3} + i10$ (d) $-\frac{4}{3} - i10$
- 57) The value of $\left[i^{19} + \left(\frac{1}{i}\right)^{25}\right]^2$ is _____
 (a) 4 (b) -4 (c) 5 (d) -5
- 58) If $z = \frac{4+3i}{5-3i}$ then $z^{-1} =$ _____
 (a) $\frac{11}{25} - \frac{27}{25}i$ (b) $\frac{-11}{25} - \frac{27}{25}i$ (c) $\frac{-11}{25} + \frac{27}{25}i$ (d) $\frac{11}{25} + \frac{27}{25}i$
- 59) If the cube roots of unity are $1, \omega, \omega^2$ then $1 + \omega + \omega^2 =$ _____
 (a) 1 (b) 0 (c) -1 (d) ω
- 60) The complex numbers $\sin x + i\cos 2x$ and $\cos x - i\sin 2x$ are conjugates of each other for _____
 (a) $x = k\pi, k \in Z$ (b) $x = 0$ (c) $x = \left(k + \frac{1}{2}\right)\pi, k \in Z$ (d) no value of x
- 61) If $z = x + iy$ and $|3z| = |z - 4|$ then $x^2 + y^2 + x =$ _____
 (a) 1 (b) -1 (c) 2 (d) -2

JOIN 10TH & 12TH PAID WHATSAPP GROUP

**DEC 1 2025 TO TILL FINAL 2026 MARCH EXAM
 UPLOAD DAILY ONE SUBJECT FULL TEST PAPER**

ONE TIME FEES RS.750 ONLY

ALL TEST PAPERS WITH ANSWERS UPLOAD IN YOUR WHATSAPP

**FREE USERS CHECK ALL SAME PAPERS UPLOAD IN MY
 WEBSITES. YOU CAN DOWNLOAD AND PRACTICE**

**RAVI TEST PAPERS & NOTES
 WHATSAPP - 8056206308**

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

- 62) The complex numbers z_1, z_2 , and z_3 satisfying $\frac{z_1 - z_3}{z_2 - z_3} = \frac{1 - i\sqrt{3}}{2}$ are the vertices of a triangle which is _____
 (a) of area zero (b) right angled isosceles (c) equilateral (d) obtuse-angle isosceles
- 63) Let z, w be complex numbers such that $\bar{z} + i\bar{w} = 0$ and $\arg(\mathbf{zw}) = \pi$ then $\arg z =$ _____
 (a) $\frac{3\pi}{4}$ (b) $\frac{\pi}{2}$ (c) $\frac{\pi}{4}$ (d) $\frac{5\pi}{4}$
- 64) If $\frac{(1+i)x-2i}{3+i} + \frac{(2-3i)y+i}{3-i} = i$ then $(x, y) =$ _____
 (a) (3, 1) (b) (3, -1) (c) (-3, 1) (d) (-3, -1)
- 65) Let z be complex number with modulus 2 and argument $\frac{-2\pi}{3}$ then $z =$ _____
 (a) $-1 + i\sqrt{3}$ (b) $\frac{-1+i\sqrt{3}}{2}$ (c) $-1 - i\sqrt{3}$ (d) $\frac{-1-i\sqrt{3}}{2}$
- 66) The small positive integer 'n' for which $(1 + i)^{2n} = (1 - i)^{2n}$ is _____
 (a) 4 (b) 8 (c) 2 (d) 12
- 67) If z_1, z_2 are complex numbers and $|z_1 + z_2| = |z_1| + |z_2|$ then _____
 (a) $\arg(z_1) + \arg(z_2) = 0$ (b) $\arg(z_1 z_2) = 0$ (c) $\arg(z_1) = \arg(z_2)$ (d) None of these
- 68) If a, b, c are integers, not all equal and ω is a cube root of unity ($\omega \neq 1$) then the minimum value of $|a + b\omega + c\omega^2|$ is _____
 (a) 0 (b) 1 (c) $\frac{\sqrt{3}}{2}$ (d) $\frac{1}{2}$
- 69) If $x = a + b, y = a\alpha + b\beta$ and $z = a\beta + b\alpha$, where $\alpha, \beta \neq 1$ are cube roots of unity, then x, y, z = _____
 (a) $2(a^3 + b^3)$ (b) $2(a^3 - b^3)$ (c) $(a^3 + b^3)$ (d) $(a^3 - b^3)$
- 70) The equation $|z - i| + |z + i| = k$ represents an ellipse if $k =$ _____
 (a) 1 (b) 2 (c) 4 (d) -1
- 71) If z is a complex number satisfying $|z - i \operatorname{Re}(z)| = |z - i \operatorname{Im}(z)|$ then z lies on _____
 (a) $y = x$ (b) $y = -x$ (c) $x = \pm y$ (d) $y = -x + 1$
- 72) If ω is one of the cube root of unity other than 1, then $\begin{vmatrix} 1 & 1 & 1 \\ 1 & -1 - \omega^2 & \omega^2 \\ 1 & \omega^2 & \omega^4 \end{vmatrix} =$ _____
 (a) 3ω (b) $3\omega(\omega - 1)$ (c) $3\omega^2$ (d) $3\omega(1 - \omega)$
- 73) If $\begin{vmatrix} 6i & -3i & 1 \\ 4 & 3i & -1 \\ 20 & 3 & i \end{vmatrix} = x + iy$ then _____
 (a) $x = 3, y = 1$ (b) $x = 1, y = 3$ (c) $x = 0, y = 3$ (d) $x = 0, y = 0$
- 74) If $z = \cos \frac{\pi}{3} - i \sin \frac{\pi}{3}$ then $z^2 - z + 1 =$ _____
 (a) $-2i$ (b) 2 (c) 0 (d) -2
- 75) If z_1, z_2 and z_3 , are complex numbers such that $|z_1| = |z_2| = |z_3| = \left| \frac{1}{z_1} + \frac{1}{z_2} + \frac{1}{z_3} \right| = 1$ then $|z_1 + z_2 + z_3|$ is _____
 (a) = 1 (b) < 1 (c) > 1 (d) 3
- 76) $\arg(0)$ is _____
 (a) ∞ (b) 0 (c) π (d) undefined
- 77) All complex numbers z which satisfy the equation $\left| \frac{z-6i}{z+6i} \right| = 1$ lie on the _____
 (a) real axis (b) imaginary axis (c) circle (d) ellipse

- 78) If $x = \frac{-1+i\sqrt{3}}{2}$ then the value of $x^2 + x + 1$ _____
 (a) 2 (b) 1/2 (c) 0 (d) 1
- 79) The value of $i^{201} + i^{202} + i^{203}$ is _____
 (a) 1 (b) i (c) -i (d) -1
- 80) If $a = 3 + i$ and $z = 2 - 3i$, then the points on the Argand diagram representing az , $3az$ and $-az$ are
 (a) Vertices of a right angled triangle (b) Vertices of an equilateral triangle
 (c) Vertices of an isosceles (d) Collinear
- 81) The value of $\sum_{n=1}^{12} i^n$
 (a) 0 (b) 1 (c) -1 (d) -2
- 82) The value of $\left(\frac{1+i}{\sqrt{2}}\right)^8 + \left(\frac{1-i}{\sqrt{2}}\right)^8$ is
 (a) 8 (b) 4 (c) 2 (d) 6
- 83) $\arg\left(\frac{3}{-1-i}\right) =$
 (a) $\frac{-5\pi}{6}$ (b) $\frac{-2\pi}{3}$ (c) $\frac{3\pi}{4}$ (d) $\frac{-\pi}{2}$

TN 12TH STUDY MATERIALS & MODEL PAPERS

CHAPTERWISE MATERIALS		CHAPTERWISE SAMPLE PAPERS	
TAMIL	RS.350		
ENGLISH	RS.350		
MATHS	RS.350	150 TEST PAPERS	RS.350
PHYSICS	RS.350	100 TEST PAPERS	RS.350
CHEMISTRY	RS.350	104 TEST PAPERS	RS.350
BIOLOGY	RS.350	123 TEST PAPERS	RS.350
COMPUTER SCI	RS.350	88 TEST PAPERS	RS.350
ACCOUNTS	RS.350	55 TEST PAPERS	RS.350
COMMERCE	RS.350	63 TEST PAPERS	RS.350
ECONOMICS	RS.350	60 TEST PAPERS	RS.350
BUSINESS MATHS	RS.350	100 TEST PAPERS	RS.350
COMPUTER APPLICATION MCQS 2 3 5 MARKS QUS ANS AVAILABLE RS.250			
BUY ANY 4 SUBJECTS PDF COST RS.1000			

CHECK FREE TEST PAPERS www.ravitestpapers.com & www.ravitestpapers.in

RAVI TEST PAPERS & NOTES, WHATSAPP – 8056206308

MINIMUM LEARNING MATERIALS COST RS.100 PER SUBJECT