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Ramacrisna Madeva Salgaonkar Higher Secondary School
Margao Goa

Std: XI Voc -CT
Date:05/08/2022

First Internal Exam Aug, 2022
Sub: Mathematic (Voc)

Time:1hr
Marks:20

Question number 1 to 8 carries 1mark each.

1. The conjugate of a complex number $(2 + 3i)$ is _____.
a) $3 + 2i$ b) $3 - 2i$ c) $2 - 3i$ d) $5i$
2. In Complex number, $i^2 =$ _____.
a) 1 b) -1 c) $\sqrt{1}$ d) $\sqrt{-1}$
3. In Argand plane the _____ of a complex number is the distance between the point \uparrow (representing complex number) and the origin.
a) Conjugate b) Modulus c) Inverse d) Tangent
4. _____ satisfies the Quadratic equation $6x^2 - x - 2 = 0$
a) $2/3$ b) $\sqrt{2}/3$ c) $\sqrt{2/3}$ d) $\sqrt{3/2}$
5. Plot the complex number $2+i$ in Argand plane.
6. Find the value of i^6 .
7. Solve the Quadratic Equation $4x^2 + 1 = 0$
8. Solve the Quadratic Equation $x^2 + 2x + 2 = 0$

Question number 9 to 11 carries 2 marks each

9. Find the inverse of the complex number $4-3i$
10. $3x^2 + 7x + 1 = 0$ (use completing square method)
11. $9x^2 - 12x + 20 = 0$ (use completing square method)

Question number 12 to 13 carries 3 marks each.

12. Solve QE $25x^2 - 30x + 11 = 0$ using formula.
13. Convert the complex number $1+i$ in polar form.
OR
13. Find the square root of complex number $7-24i$

*****All the Best*****