

1. Value of i (iota) is _____

- a) -1
- b) 1
- c) $(-1)^{1/2}$
- d) $(-1)^{1/4}$

2. Is i (iota) a root of $1+x^2=0$?

- a) True
- b) False

3. In $z=4+i$, what is the real part?

- a) 4
- b) i
- c) 1
- d) $4+i$

4. In $z=4+i$, what is imaginary part?

- a) 4
- b) i
- c) 1
- d) $4+i$

5. $(x+3) + i(y-2) = 5+i2$, find the values of x and y .

- a) $x=8$ and $y=4$
- b) $x=2$ and $y=4$
- c) $x=2$ and $y=0$
- d) $x=8$ and $y=0$

6. If $z_1 = 2+3i$ and $z_2 = 5+2i$, then find sum of two complex numbers.

- a) $4+8i$
- b) $3-i$
- c) $7+5i$
- d) $7-5i$

7. $0+0i$ is _____ for complex number z .

- a) additive inverse
- b) additive identity element
- c) multiplicative identity element
- d) multiplicative inverse

8. $1+0i$ is _____ for complex number z .

- a) additive inverse
- b) additive identity element
- c) multiplicative identity element
- d) multiplicative inverse

9. $-z$ is _____ for complex number z .

- a) additive inverse
- b) additive identity element
- c) multiplicative identity element

d) multiplicative inverse

10. $1/z$ is _____ for complex number z .

- a) additive inverse
- b) additive identity element
- c) multiplicative identity element
- d) multiplicative inverse

11. $z_1=1+2i$ and $z_2=2+3i$. Find z_1z_2 .

- a) $2+6i$
- b) $-4+0i$
- c) $-4+7i$
- d) $8+7i$

12. $i^2 =$ _____

- a) 1
- b) -1
- c) i
- d) $-i$

13. $i^7 =$ _____

- a) 1
- b) -1
- c) i
- d) $-i$

14. $i^{241} =$ _____

- a) 1
- b) -1
- c) i
- d) $-i$

15. Square roots of -7 are _____

- a) $7i$ and $-7i$
- b) $7-\sqrt{7}i$
- c) $-7-\sqrt{7}i$
- d) $7-\sqrt{7}i$ and $-7-\sqrt{7}i$

16. $(-i)(8+5i) =$ _____

- a) $8+5i$
- b) $-8-5i$
- c) $-5-8i$
- d) $5-8i$

17. $(2-i)^3 =$ _____

- a) $2-3i$
- b) $8-i$
- c) $2-11i$
- d) $2+11i$

18. Is $z \cdot z^{-1} = |z|^2$?

- a) True
- b) False

19. Find multiplicative inverse of $3+5i$.

- a) $(3+5i)/34$
- b) $(3-5i)/34$
- c) $(-3+5i)/34$
- d) $-(3+5i)/34$

20. $i^{-35} =$ _____

- a) 1
- b) -1
- c) i
- d) -i

ANSWERS-1.(C) 2.(A) 3.(A) 4.(C) 5.(B) 6.(C) 7.(B) 8.(C) 9.(A) 10.(D)

11.(C) 12.(B) 13.(D) 14.(C) 15.(D) 16.(D) 17.(C) 18.(A) 19.(B) 20.(C)