



Model Test

31. ω & ω^2 are the imaginary cube roots of unity then the value of $|\omega| + |\omega^2| =$
(1 marks)

☐ 2

☐ -1

☐ 0

☐ 3

32. $\lim_{x \rightarrow \frac{\pi}{2}} \frac{\sin 2x}{\frac{\pi}{2} - x}$
(1 marks)

☐ 2

☐ -1

☐ 0

☐ $\frac{1}{2}$

33. If $x^2 + x + 1 = 0$ then the value of $x^{3n} =$
(1 marks)

☐ 2

☐ -1

☐ 0

☐ 1

34. Choose the correct answer
(1 marks)

☐ Every identity matrix is a scalar matrix

☐ Every scalar matrix is an identity matrix

☐ Every diagonal matrix is an identity matrix

☐ a square matrix whose each element is 1 is an identity matrix

35. If A & B are two sets then $(A - B) \cup (B - A) \cup (A \cap B)$ is equals to
(1 marks)

☐ $(A - B)$

☐ $(A \cap B)$

☐ A

☐ $(A \cup B)$

36. If $\vec{a} = (2\vec{i} + \vec{j} + 2\vec{k})$ and $\vec{b} = (5\vec{i} - 3\vec{j} + \vec{k})$ then the projection of \vec{b} upon \vec{a} is
(1 marks)

☐ 3

☐ 4

☐ 5

☐ 6

37. The centre of the hyperbola whose foci are $(6, 4)$ and $(-4, 4)$ is
(1 marks)

☐ $(1, 2)$

☐ $(-2, 0)$

☐ $(3, 4)$

☐ $(1, 4)$

38. The locus of the equation $x^2 - 5x + 6 = 0$ is
(1 marks)

☐ the empty set

☐ a set containing two distinct points

☐ a pair of parallel lines

☐ a parabola

39. The length of the latus rectum of the parabola $y^2 + 8x - 2y + 17 = 0$ is
(1 marks)

☐ 2

☐ 4

☐ 6

☐ 8

40. In ΔABC , the sides of a triangle are $\sqrt{2}, 3, \sqrt{7}$ then the greatest angle is
(1 marks)

☐ 90°

☐ 60°

☐ 30°

☐ 120°

Next

