VITEEE 2021 (May 28 - Slot 2) - Memory Based Questions

Ques: The equation of the normal to the hyperbola 25x2- 64y2 = 1600 at the point (16, 5√5) is:

1.√5x + 4y = 89

2.√5x + 4y = 39

3.4x + √5y = 89

4.4x + √5y = 39

Ques: Which of the following is a tautology?

1.(P v Q)↔(P v (P↔(Q↔R)))

2.(P v Q)↔(Q v (P↔(Q↔R)))

3.(P v Q)↔(P v (Q↔(R↔Q)))

4.(P v Q)↔(Q v (Q↔(R↔Q)))

Ques: If i2= -1, then the value of $\sum_{n=1}^{200} i^n$ is?

1.-50

2.0

3.50

4.100

Ques: The domain for which the function f(x) = 2x2-1 andg (x) = 1 - 3x are equal is

1.{2}

2.{½}

3.-2, ½}

4.{-2}

Q: The angle between the curves y = x3and y = x5at x = 0 is

1.π/2

2.0

3.π/3

4.π/4

Q: As mass A increases. Which of the following quantities related to a nucleus do not change?
1. Volume
2. Density
3. Mass
4. Binding Energy

Ques: A tetrapeptide possesses _____ peptide bonds and can be _____ into amino acids fragments
1.4; hydrolysed
2.3; hydrolysed
3.4; denatured
4.4; denatured

Ques: Which of the following statements is true?
1. The wavelength of light emitted by LED depends on the applied voltage across the LED.
2. LED emits light when it is reverse biased
3. The V-I characteristics of an LED is similar to that of a silicon p-n junction diode
4. LED is made of a thin layer of lightly doped semiconductor material

Ques: The resistance of a copper wire is 1.05 Ω at 20 degree C. What will be resistance at 0 degree C? The temperature coefficient of resistivity of copper is0.00393 degree C-1.
1.0.52 Ω
2.0.31 Ω
3.0.89 Ω
4.0.97 Ω