Criterion Referenced Test
Mathematics
Std. : 10


### સૂચના

ભિંદાણી બાઈ-બાઈનો,
- આજે આપણે એક ક્રોટી આપવામાં આવી છે. એ શાળામાં કોઈ કોઈ પરીક્ષા માટે નથી. માટે શિક્ષકો માટે સંશોધનના હેતુસર આ ક્રોટી આપવામાં આવી છે. આ ક્રોટીના પરીક્ષામાં પણ પ્રતિભા રહસયો અને અનેટ ઉપયોગ માટે સંશોધન માટે જ કરવામાં આવશે.
- સૌ પ્રથમ વિદ્યાર્થીએ નીહોયી માહિતી સંપૂર્ણ રીતે સાય આખરે જવાની છે.
- વિષય નિરીકશનની સૂચના માટ બાદ ક્રોટીના પ્રશ્નોના જવાબો વધવાનું મદદ કરવું.
- ક્રોટીના જવાબો જેવા આપે તેવું તમારી જાણ જ જવાનાં છે. એમાં કોઈ પ્રચારણ બિના જવાની જરુર નથી. ક્રોટીના પ્રશ્નના જવાબ કમ પ્રમાણક જ જવાનાં છે, એટાં કોઈ પ્રચાર ન આપવે તો તે છોડી દવા બીજી પ્રશ્નના જવાબ આપો.
- ગણતરીને રાક જમ માટે કોઇ પણાં ઉપયોગ કરો.

### વિદ્યાર્થીની માહિતી

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आ क्लोटीमा कुल 100 प्रश्नों हैं, दरें प्रश्नों 1 गुण हैं। जैसे θ, α, A जैसे B वेवोज कप्त ती योग निल्यसमनो उपयोग करी नीये आपेक्षा विवादनों मात्र जग्जा पुरो (अवश्यकता जान से तो दो स्पा ताननो उपयोग करो).

1.1

(1) Sec θ जे ................. तो व्यस्त छ.
(2) जैसे Cos θ = \(\frac{4}{5}\) तो Sec θ = ...............
(3) जैसे Cos α = \(\frac{1}{\sqrt{2}}\) तो Sec α = ...............
(4) जैसे Sec A = \(\frac{a}{b}\) तो Cos A = ...............
(5) जैसे Sec θ = \(\frac{3}{2}\) तो Cos θ = ...............
(6) जैसे Sec α = \(\sqrt{\frac{5}{2}}\) तो Cos α = ...............
(7) Cos θ . Sec θ = ...............
(8) (Sec α . Cos α)² - √Cos A . Sec A = ...............

(9) जैसे Sin α = \(\frac{6}{10}\) तो Cosec α = ...............
(10) जैसे Sin A = \(\frac{5}{13}\) तो Cosec A = ...............
(11) 2 Sin θ = \(\sqrt{3}\) तो Cosec θ = ...............
(12) जैसे Cosec α = \(\frac{13}{12}\) तो Sin α = ...............
(13) जैसे Cosec B = \(\sqrt{2}\) तो Sin B = ...............
(14) जैसे 3 Cosec θ = 4 तो Sin θ = ...............
(15) 1 + Sin A . Cosec A = ...............
(16) Sin θ . Cosec θ - Cosec² α . Sin² α = ...............

(17) जैसे tan A = \(\frac{12}{5}\) तो Cot A = ...............
(18) जैसे 2 tan θ = \(\sqrt{5}\) तो Cot θ = ...............
(19) जैसे tan α = \(\frac{3}{4}\) तो Cot α = ...............
(20) जैसे Cot B = \(\frac{3}{4}\) तो tan B = ...............
(21) जैसे Cot A = \(\frac{3}{2}\) तो tan A = ...............
(22) जैसे Cot θ = \(\sqrt{3}\) तो tan θ = ...............
(23) (Cot A . tan A)³ = ...............
(24) (tan α . Cot α)² + (tan θ . Cot θ) = ...............

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\[
\frac{\sin \Theta}{\cos \Theta} = \ldots \ldots
\]

(26) \[\sin \alpha = \frac{3}{17}, \cos \alpha = \frac{15}{17} \quad \text{\&} \quad \tan \alpha = \ldots \ldots\]

(27) \[\sin \Theta = \cos \Theta \quad \text{\&} \quad \tan \Theta = \ldots \ldots\]

(28) \[\cos A = \frac{\sqrt{3}}{2}, \tan A = \frac{1}{\sqrt{3}} \quad \text{\&} \quad \sin A = \ldots \ldots\]

(29) \[\tan \alpha = \frac{6}{5}, \cos \alpha = \frac{8}{10} \quad \text{\&} \quad \sin \alpha = \ldots \ldots\]

(30) \[\cos \Theta \quad \text{\&} \quad \tan \Theta = \ldots \ldots\]

(31) \[\sin \alpha = \frac{3}{5}, \tan \alpha = \frac{3}{4} \quad \text{\&} \quad \cos \alpha = \ldots \ldots\]

(32) \[\sin B = \frac{\sqrt{5}}{3}, \quad \tan B = \frac{\sqrt{5}}{2} \quad \text{\&} \quad \cos B = \ldots \ldots\]

(33) \[\frac{\cos \Theta}{\sin \Theta} = \ldots \ldots\]

(34) \[\cos A = \frac{\sqrt{3}}{2}, \quad \sin A = \frac{1}{2} \quad \text{\&} \quad \cot A = \ldots \ldots\]

(35) \[3 \cos \Theta = 2 \sin \Theta \quad \text{\&} \quad \cot \Theta = \ldots \ldots\]

(36) \[\sin \alpha \quad \text{\&} \quad \cot \alpha = \ldots \ldots\]

(37) \[\sin A = \frac{2}{3}, \quad \cot A = \frac{\sqrt{5}}{2} \quad \text{\&} \quad \cos A = \ldots \ldots\]

(38) \[\sin B = \frac{1}{2}, \quad \cot B = \sqrt{3} \quad \text{\&} \quad \cos B = \ldots \ldots\]

(39) \[\cos \alpha = \frac{2}{3}, \quad \cot \alpha = \frac{2}{\sqrt{5}} \quad \text{\&} \quad \sin \alpha = \ldots \ldots\]

(40) \[\cos \Theta = \frac{4}{5}, \quad \cot \Theta = \frac{4}{3} \quad \text{\&} \quad \sin \Theta = \ldots \ldots\]

(41) \[\sin^2 \alpha + \cos^2 \alpha = \ldots \ldots\]

(42) \[\sin^2 40^\circ + \cos^2 \Theta = 1 \quad \text{\&} \quad \Theta = \ldots \ldots\]

(43) \[(1 - \cos^2 \Theta) \quad \text{\&} \quad \cosec \Theta = \ldots \ldots\]

(44) \[\sin^2 (2x - 40) + \cos^2 (x + 20) = 1 \quad \text{\&} \quad x = \ldots \ldots\]

(45) \[\cos A = \frac{3}{5} \quad \text{\&} \quad \sin A = \ldots \ldots\]

(46) \[\cos B = \frac{\sqrt{3}}{2} \quad \text{\&} \quad \sin B = \ldots \ldots\]

(47) \[\sec \Theta \quad (1 - \sin^2 \Theta) = \ldots \ldots\]

(48) \[\sin \alpha = \frac{5}{13} \quad \text{\&} \quad \cos \alpha = \ldots \ldots\]

(49) \[\sin \Theta = \frac{1}{\sqrt{2}} \quad \text{\&} \quad \cos \Theta = \ldots \ldots\]
1.7

(50) \[ 1 + \tan^2 \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(51) \[ \frac{\tan \alpha}{\tan \alpha} = 2 \sqrt{2} \quad \text{tl} \quad \sec \alpha = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(52) \[ \frac{12 \tan B}{\tan B} = 5 \quad \text{tl} \quad \sec B = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(53) \[ \frac{4 \tan A}{\tan A} = 3 \quad \text{tl} \quad \sec A = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(54) \[ \frac{\sec \Theta}{\sec \Theta} = \sqrt{2} \quad \text{tl} \quad \tan \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(55) \[ \frac{\sec (\alpha + 1)}{\sec (\alpha - 1)} = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(56) \[ \frac{\sec B}{\sec B} = 5 \sqrt{2} \quad \text{tl} \quad \tan B = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(57) \[ (\sec \Theta + \tan \Theta) (\sec \Theta - \tan \Theta) = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(58) \[ \frac{\sec^2 (3x + 10) - \tan^2 (5x - 30) = 1}{1} \quad \text{tl} \quad x = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

1.8

(59) \[ 1 + \cot^2 \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(60) \[ \frac{6 \cot \Theta}{\cot \Theta} = 8 \quad \text{tl} \quad \cosec \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(61) \[ \frac{\cot \alpha}{\cot \alpha} = 4 \sqrt{3} \quad \text{tl} \quad \cosec \alpha = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(62) \[ \frac{8 \cot B}{\cot B} = 15 \quad \text{tl} \quad \cosec B = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(63) \[ \frac{\cos \alpha}{\cos \alpha} = \frac{2}{\sqrt{3}} \quad \text{tl} \quad \cot \alpha = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(64) \[ \frac{4 \cosec A}{\cosec A} = 5 \quad \text{tl} \quad \cot A = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(65) \[ \frac{\cosec \Theta}{\cosec \Theta} = \sqrt{3} \quad \text{tl} \quad \cot \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(66) \[ (\cosec \alpha + \cot \alpha) (\cosec \alpha - \cot \alpha) = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(67) \[ \frac{\cosec^2 (x + 10) - \cot^2 (3x - 20) = 1}{1} \quad \text{tl} \quad x = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

1.9

(68) \[ \frac{\cos \Theta}{\cos \Theta} = \sin 40^\circ \quad \text{tl} \quad \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(69) \[ \frac{\sin A}{\sin A} = \cos 35^\circ \quad \text{tl} \quad A = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(70) \[ \frac{\tan \alpha}{\tan \alpha} = \cot 42^\circ \quad \text{tl} \quad \alpha = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(71) \[ \frac{\cot B}{\cot B} = \tan 56^\circ \quad \text{tl} \quad B = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(72) \[ \frac{\cosec \Theta}{\cosec \Theta} = \sec 50^\circ \quad \text{tl} \quad \Theta = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(73) \[ \frac{\cosec \alpha - \sec 48^\circ = 0}{\cosec \alpha - \sec 48^\circ = 0} \quad \text{tl} \quad \alpha = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(74) \[ \frac{\cosec \Theta \cdot \cos (90^\circ - \Theta)}{\cosec \Theta \cdot \cos (90^\circ - \Theta)} = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(75) \[ \frac{\tan \alpha \cdot \tan (90^\circ - \alpha)}{\tan \alpha \cdot \tan (90^\circ - \alpha)} = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

(76) \[ \frac{\sec B = \cosec 25^\circ}{\sec B = \cosec 25^\circ} \quad \text{tl} \quad B = \quad \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \]

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\[ \sin \theta = \frac{1}{2}, \quad 0^\circ < \theta < 90^\circ \]  
\[ \cos \alpha = \frac{\sqrt{3}}{2}, \quad 0^\circ < \alpha < 90^\circ \]  
\[ \sin 30^\circ \cdot \csc 30^\circ = \]  
\[ \cos a = \]  
\[ \tan 30^\circ = \]  
\[ \cot^2 30^\circ - \csc 30^\circ = \]  
\[ \sqrt{3} \cdot \sec 30^\circ - 1 = \]  
\[ \sec 30^\circ \cdot \cot 30^\circ = \]  
\[ \tan 30^\circ + \sec 30^\circ = \]  
\[ \sin \theta = \cos \theta, \quad 0^\circ < \theta < 90^\circ \]  
\[ \tan \alpha = 1, \quad 0^\circ < \alpha < 90^\circ \]  
\[ \sin 45^\circ + \cos 45^\circ = \]  
\[ \csc 45^\circ - \sec 45^\circ = \]  
\[ \cot^2 45^\circ - 1 = \]  
\[ 2 \cos^2 45^\circ = \]  
\[ \sin^2 45^\circ = \]  
\[ \sec^2 45^\circ - 2 \tan 45^\circ = \]  
\[ \cos 60^\circ \cdot \tan 60^\circ = \]  
\[ 2 \sin 60^\circ - \tan 60^\circ = \]  
\[ \tan^2 60^\circ - \sec 60^\circ = \]  
\[ \sqrt{3} \cdot \csc 60^\circ - 1 = \]  
\[ \sec 60^\circ - 2 = \]  
\[ 1 - \cot^2 60^\circ = \]  
\[ \csc 60^\circ \cdot \tan 60^\circ = \]  
\[ \tan \alpha = \sqrt{3}, \quad 0^\circ < \alpha < 90^\circ \]