TEMPLATE FOR ASSESSMENTS

1. **Read Guidelines – in case of any doubt check with your mentor.**
2. **The final submission will have to be in soft copy in MS word as per template shared below.**
3. **Use Calibri font size 9**
4. **Keep Questions short and crisp. Word count should not exceed 20 words for questions and 8 words for options.**
5. **In the last row – mention the correct option as a) or b)**
6. **The Blooms level has been fixed – so please design question accordingly.**
7. **The rows heights have been fixed, so that the table size is not changed. If you have any problem, use this link to learn how to fix it YouTube**

Insert the exact details within the < >

<22103>: <BMS>: <Basic Mathematics>: <Trigonometric ratios for compound angle >: <co2_LO2.1.1>: <Assessments>: <Formative>

<Mr. A.D.Wandhekar>

Assessment Type: Formative Assessments: Embedded questions in video

Set 1: Question No 1	Set 1: Question No 2	Set 1: Question No 3
The value of $\cos 105^0$	**$\angle$A and $\angle$B both are obtuse angles, sinA = $\frac{5}{13}$ and cosB = $\frac{-4}{5}$ find the value of sin (A + B).**	$If\ \tan x = \frac{1}{11}\ and\ \tan y \frac{5}{6}$ $find \tan(x+y)$
Recall/ Remembering	**Understanding**	**Application**
a) $\frac{\sqrt{3}+1}{2\sqrt{2}}$	**a)** $-\frac{16}{65}$	**a) 1**
b) $\frac{\sqrt{3}-1}{2\sqrt{2}}$	**b)** $\frac{16}{65}$	**b) -1**
c) - $\frac{\sqrt{3}+1}{2\sqrt{2}}$	**c)** $\frac{65}{16}$	**c) π/4**
d) $\frac{1-\sqrt{3}}{2\sqrt{2}}$	**d)** $-\frac{65}{16}$	**d) π/2**
Ans: <d>	**Ans: <b>**	**Ans: <a>**

Set 2: Question No 1	Set 2: Question No 2	Set 2: Question No 3
$\tan\left(\frac{\pi}{4}+A\right)$=	The value of $\frac{\tan 66^0+\tan 69^0}{1-\tan 66^0 \tan 69^0}$	If $\sin\theta=\frac{15}{17}$, θlies in the second quadrant. Find $\tan\theta$
Recall/ Remembering	Understanding	Application
a) $\frac{\cos A-\sin A}{\cos A+\sin A}$	a) 1	a)$-\frac{15}{8}$
b) $\frac{\cos A+\sin A}{\cos A-\sin A}$	b) -1	b) $-\frac{5}{8}$
c) 1	c) 0	c) $-\frac{8}{15}$
d)$\frac{1-\tan A}{1+\tan A}$	d) not defined	d) $\frac{15}{8}$
Ans: <b>	Ans: <b>	Ans: <a>

Assessment Type: Summative: End of CO: in LMS

Summative: Q 1	Summative: Q 2	Summative: Q 3	Summative: Q 4	Summative: Q 5
If A and B both are obtuse angles and sinA = 5/ 13, cosB = -4/5 then find the quadrant of angle A+B.	$\frac{\sin 3\theta}{\sin \theta} - \frac{\cos 3\theta}{\cos \theta} =$	**sin** $(\theta + \pi/6) -$ **sin** $(\theta - \pi/6)$	$If \tan(x+y) = \frac{1}{2}$ $and \tan(x-y) = \frac{1}{3}$ $find \tan 2y.$	**sin 105° + cos 105°** $=$
Recall/ Remembering	**Understanding**	**Application**	**Understanding**	**Application**
a) first quadrant	**a) 2**	**a) sin θ**	**a) 1**	**a)** $\sqrt{2}$
b) second quadrant	**b)2sin θ**	**b) cos θ**	**b)1/7**	**b)** $\frac{1}{\sqrt{3}}$
c)third quadrant	**c) 1**	**c) sin 2 θ**	**c)1/6**	**c)** $\frac{1}{\sqrt{2}}$
d) fourth quadrant	**d)4**	**d) cos 2 θ**	**d)-1**	**d) 1**
Ans: <d>	**Ans: <a>**	**Ans: <b>**	**Ans: <b>**	**Ans: <c>**

Assessment Type: Practice Worksheets: End of CO: in LMS/ downloadable PDF

If students have access to laptop/ desktop – they can answer it on LMS, else download it and answer it and file it for later use. They can also copy the question in their notebook in case the space provided is insufficient.

1. Best suited for subjective questions.
2. Numerical problems
3. Short answer questions

A. Question Space **Prove :** $\frac{1-\tan 2A \cdot \tan A}{1+\tan 2A \cdot \tan A} = \frac{\cos 3A}{\cos A}$	**B. Question Space** **Show that** $\tan\left(\frac{\pi}{4} - \theta\right) = \frac{1-\tan\theta}{1+\tan\theta}$.
A. Answer Space	**B. Answer Space**

C. Question Space Prove: $\frac{\sin(A-B)}{\cos A \cdot \cos B}$ = tanA – tan B	**D. Question Space** **If tan (x +y) = 3/4 and tan(x-y) = 8/15 then find tan2x.** **Ans :** $\boldsymbol{tan\,2x = \frac{77}{36}}$
C. Answer Space	**D. Answer Space**
E. Question Space **Prove:** $\frac{\cot A - \cot 2A}{\cot A + \cot 2A} = \frac{\sin A}{\sin 3A}$	**F. Question Space** **If sinA =** $\frac{-5}{13}$ **and cosB =** $\frac{-7}{25}$ **and ∠A & ∠B both lies in third quadrant, find sin (A – B).** **Ans:** $-\frac{253}{325}$

E. Answer Space	**F. Answer Space**
G. Question Space **Prove : $\tan 70^0 - \tan 50^0 - \tan 20^0 = \tan 70^0 \cdot \tan 50^0 \cdot \tan 20^0$**	**H. Question Space** **If $A + B = \frac{\pi}{4}$ show that $(1 + \tan A) \cdot (1 + \tan B) = 2$**

G. Answer Space	H. Answer Space