

## 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 multiple angles>: <co2\_uo2.1.3>:  
<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
$\cos 2\theta$ is not equal to	If $\sin A = 0.4$ find $\sin 3A$	If $\sec \theta = -13/5$ and $\theta$ lies in second quadrant, find $\tan 2\theta$
Recall/ Remembering	Understanding	understanding
a) $2\cos^2 \theta - 1$	a) 0.256	a) 120/119
b) $1 - 2\sin^2 \theta$	b) 0.944	b) -7/15
c) $\frac{1 - \tan^2 \theta}{1 + \tan^2 \theta}$	c) 0.56	c) 1/5
d) $\frac{1 + \tan^2 \theta}{1 - \tan^2 \theta}$	d) 1.17	d) 1/2
Ans: <d>	Ans: <b>	Ans: <a>

Set 2: Question No 1	Set 2: Question No 2	Set 2: Question No 3
If $\sin A = 0.4$ , find $\cos 2A$	If $\cos \alpha = 0.4$ , find $\cos 3\alpha$	If $\cos A = \frac{1}{2}$ , find the value of $\cos 2A$
Recall/ Remembering	Understanding	Understanding
a) 0.68	e) 0.446	a) $\frac{1}{2}$
b) 0.944	b) -0.944	b) $\frac{1}{3}$
c) 0.56	c) 0.56	c) $\frac{1}{4}$
d) 1.17	d) 1.17	d) $-\frac{1}{2}$
Ans: <a>	Ans: <b>	Ans: <d>

**Assessment Type: Summative: End of CO: in LMS**

Summative: Q 1	Summative: Q 2	Summative: Q 3	Summative: Q 4	Summative: Q 5
tan 2A=	$\frac{1 + \sec 2\theta}{\tan 2\theta} =$	If A= 45°, find cos 3A	Find sin A. sin(60-A) sin(60+A)	If A = 30° Find 3sin A – 4 sin³A
Recall/ Remembering	Understanding	Understanding	Application	Understanding
a) $\frac{1-\tan^2 A}{1+\tan^2 A}$	a) tan Θ	a) 0	a) cos 3A	a) 0
b) $\frac{1+\tan^2 A}{1-\tan^2 A}$	b) cotΘ	b) 1	b) 1/4 sin 3A	b) 1
c) $\frac{2\tan A}{1-\tan^2 A}$	c) sinΘ	c) $\frac{1}{\sqrt{2}}$	c) 4cos 3A	c) 1/4
d) $\frac{2\tan A}{1+\tan^2 A}$	d) cosΘ	d) $-\frac{1}{\sqrt{2}}$	d) 4sin 3A	d) 1/2
Ans: <c>	Ans: <b>	Ans: <a>	Ans: <b>	Ans: <b>

**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

<b>A. Question Space</b> Prove that $\frac{\sin 2\theta}{1+\cos 2\theta} = \tan \theta$	<b>B. Question Space</b> Prove that $\frac{\sin 4\theta + \sin 2\theta}{1+\cos 2\theta + \cos 4\theta} = \tan 2\theta$
<b>A. Answer Space</b>	<b>B. Answer Space</b>

**C. Question Space**

Prove that  $4 \cos A \cos (60^\circ - A) \cos (60^\circ + A) = \cos 3A$

**D. Question Space**

Prove that  $\sqrt{2 + \sqrt{2 + 2\cos 4\theta}} = 2 \cos \theta$

**C. Answer Space****D. Answer Space****E. Question Space**

If  $A = 60^\circ$  verify that  $\tan 2A = \frac{2 \tan A}{1 - \tan^2 A}$

**F. Question Space**

If  $\cos A = 0.4$  Find the value of  $\cos 3A$

**E. Answer Space**

**F. Answer Space**

**G. Question Space**

If  $A = 30^\circ$ , Verify that i)  $\sin 2A = 2 \sin A \cdot \cos A$

ii)  $\sin 2A = \frac{1 - \tan^2 A}{1 + \tan^2 A}$

**H. Question Space**

Prove that  $\frac{\cos 3\theta}{\cos \theta} + \frac{\sin 3\theta}{\sin \theta} = 4 \cos 4\theta$

**G. Answer Space**

**H. Answer Space**