UNITY TRAINING
ACADEMY FOR DDCET

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Practice Set 3 Solution

Trigonometry
MATERIAL

Topics : 1. Units of Angles (degree and radian) 2. Trigonometric Functions 3. Periods of Trigonometric functions 4. Allied & Compound Angles, Multiple –Submultiples angles 5. Sum and factor formula

DDCET final exam weightage of this topic : 3 Questions (6 Marks)

Total Practice sets of this topic :	8 (sets) x 25 (questions) = 200 Questions
Total Practice tests of this topic :	2 (exams) x 30 (questions) = 60 Questions
Offline / Online during lecture :	4 (lectures) X 50 (Questions) = 200 Question

DDCET 2025

Total 460 Questions to practice this topic

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Section 2:

Topic 2: Trigonometry

1. Convert 200° to radians.

a. $\frac{10\pi}{9}$ ✓
b. π
c. $\frac{9}{10\pi}$
d. 10π

2. How many degrees are there in a full circle?

a. 0°
b. 90°
c. 180°
d. 360° ✓

3. $135^0 =$ _____ radian.

a. $\frac{\pi}{4}$
b. $\frac{3\pi}{4}$ ✓
c. $\frac{5\pi}{4}$
d. $\frac{5\pi}{6}$

4. $\frac{2\pi}{9} =$ _____ degree.

a. 40 ✓
b. 80
c. 10
d. 20

Section 2: Topic 2: Trigonometry

5. Convert 150° to radians.

a. $\frac{3\pi}{4}$
b. $\frac{5\pi}{6}$ ✓
c. $\frac{7\pi}{9}$
d. π

6. $225^0 =$ _____ radian.

a. $\frac{5\pi}{4}$ ✓
b. $\frac{3\pi}{2}$
c. $\frac{7\pi}{6}$
d. $\frac{11\pi}{8}$

7. $\frac{5\pi}{4}$ radian = _____ degrees.

a. 120
b. 225✓
c. 135
d. 180

8. $\frac{7\pi}{6}$ radians = _____ degrees.

a. 180°
b. 210° ✓
c. 240°
d. 150°

Section 2:

Topic 2: Trigonometry

9. Convert 300° to radians.

a. $\frac{5\pi}{3}$ ✓
b. $\frac{3\pi}{2}$
c. $\frac{4\pi}{3}$
d. $\frac{2\pi}{5}$

10. $\frac{3\pi}{2}$ radians = _____ degrees.

a. 180°
b. 270° ✓
c. 300°
d. 360°

11. $\frac{11\pi}{6}$ radians = _____ degrees.

a. 300°
b. 330° ✓
c. 345°
d. 360°

12. Convert 240° to radians.

a. $\frac{3\pi}{2}$
b. $\frac{4\pi}{3}$ ✓
c. $\frac{5\pi}{4}$
d. $\frac{7\pi}{6}$

Section 2: Topic 2: Trigonometry

13. What is the principal period of y = -4sin(3x/2)?

a. 2π/3
b. 4π/3 ✓
c. 2π/1.5
d. π

14. What is the principal period of y = sec(-2x)?

a. π
b. 2π
c. 2π/2 ✓
d. Undefined

15. Find the principal period of y = cos(2x + π/3).

a. 2π
b. π ✓
c. π/2
d. 2π + π/3

16. What is the principal period of y = 3cos(x/3)?

a. 3π
b. π/3
c. 6π ✓
d. 2π

17. What is the principal period of the function y = sin(5x + π)?

a. 2π
b. π
c. 2π/5 ✓
d. π/5

Section 2: Topic 2: Trigonometry

18. What is the principal period of the function $y = \sin^2 49^0 + \cos^2 49^0$?

a. 2π
b. π
c. $\pi/49^0$
d. undefined ✓

19. Period of $\sin \frac{x}{2} + \cos \frac{x}{5}$ is _____

a. 10π
b. 2π
c. 20π ✓
d. 5π

20. $\sin 135^0 =$ _____.

a. $1/\sqrt{2}$ ✓
b. $-1/\sqrt{2}$
c. $\sqrt{2}$
d. $-\sqrt{2}$

21. $\cos\left(\frac{3\pi}{2} + \theta\right) =$ _____.

a. $\sin\theta$ ✓
b. $\cos\theta$
c. $-\sin\theta$
d. $-\cos\theta$

Section 2: Topic 2: Trigonometry

22. $\sin\left(\frac{3\pi}{2} + \theta\right) =$ _____.

a. $\sin\theta$
b. $\cos\theta$
c. $-\sin\theta$
d. $-\cos\theta$ ✓

23. $\sin\left(\frac{\pi}{2} - \theta\right) =$ _____.

a. $\sin\theta$
b. $\cos\theta$ ✓
c. $-\sin\theta$
d. $-\cos\theta$

24. $\cos(\pi + \theta) =$ _____.

a. $\sin\theta$
b. $\cos\theta$
c. $-\sin\theta$
d. $-\cos\theta$ ✓

25. $\tan\left(\frac{3\pi}{2} + \theta\right) =$ _____.

a. $\cot\theta$
b. $-\cot\theta$ ✓
c. $\tan\theta$
d. $-\tan\theta$