# ECAT Mathematics Chapter 12 Trigonometric Functions and Identities

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | If l=1.5 cm and r=2.5 cm, then 0= | A. .3 radians<br>B. .20 radians<br>C. .5 radians<br>D. .6 radians |
| 2 | $16^{o}30'$ = | A. 16.5<sup>o</sup><br>B. 16.2<sup>o</sup><br>C. 16.60<sup>o</sup><br>D. 19.9<sup>o</sup> |
| 3 | The value of $63^{o}$in term ofπ is | A. 5π/2<br>B. 5π/3<br>C. 7π/20<br>D. 7π/3 |
| 4 | radian is the measure of the angle subtended oat the centre of the circle by an are, whose length is equal to the | A. radius of the circle<br>B. circumference<br>C. are length<br>D. tangent of the circle<br>E. none of these |
| 5 | The area of a sector of a circular region of radius r is | A. 2π r<br>B. π r<sup>2</sup><br>C. 1/2πr<sup>2</sup><br>D. π/6 |
| 6 | The value of 7π/9 in terms of degree is | A. 140<sup>o</sup><br>B. 130<sup>o</sup><br>C. 120<sup>o</sup><br>D. 45<sup>o</sup> |
| 7 | 3/π=..... | A. 54.71<sup>o</sup><br>B. 21<sup>o</sup><br>C. 51<sup>o</sup><br>D. 29<sup>o</sup> |
| 8 | The value of 7π /9 in terms of degrees is | A. 150<sup>o</sup><br>B. 130<sup>o</sup><br>C. 135<sup>o</sup><br>D. 140<sup>o</sup> |
| 9 | The are of sector of a circular region of radius r is | A. 2π r<br>B. π r<sup>2</sup><br>C. 1/2π r<sup>2</sup><br>D. 1/2 r<sup>2</sup>0 |
| 10 | if tanθ = 8/15 and cosθ< 0 , then cscθ = | A. -8/15<br>B. 15/8<br>C. 3/15<br>D. -17/8 |
| 11 | The value of $150^{o}$ in term of π is | A. 2π/5<br>B. 5π/2<br>C. 3π/2<br>D. 2550/32401π |
| 12 | The circle with are 60 $cm^{2}$ has an arc 8 cm long. The angle that is subtended at the centre of the circle by the are is | A. 1.83 radians<br>B. 2.1 radians<br>C. 1.05 radians<br>D. 1.25 radians |
| 13 | the value of 25π/36 in degrees is | A. 120<sup>o</sup><br>B. 125<sup>o</sup><br>C. 60<sup>o</sup><br>D. 115<sup>o</sup> |
| 14 | The value of 2π/3 in degree is | A. 120<sup>o</sup><br>B. 160<sup>o</sup><br>C. 150<sup>o</sup><br>D. 60<sup>o</sup> |
| | | A. cos 45<sup>o</sup> |

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| 15 | Express cos 320$^{o}$ between 0$^{o}$and 45$^{o}$ | B. cos 30<sup>o</sup><br>C. -cos 40<sup>o</sup><br>D. cos 40<sup>o</sup> |
| 16 | 21.256$^{o}$ | A. 21<sup>o</sup>15'21" <br><br>B. 21<sup>o</sup>20'56"<br>C. 21<sup>o</sup>25'1"<br>D. 21<sup>o</sup>25'6" |
| 17 | Express cos 320$^{o}$ between 0$^{o}$and 45$^{o}$ | A. cos 45<sup>o</sup><br>B. cos 30<sup>o</sup><br>C. -cos 40<sup>o</sup><br>D. cos 40<sup>o</sup> |
| 18 | The circular measure of the angle between the hands of a watch of 4 0'clock is | A. π/2<br>B. π/4<br>C. 2π/3<br>D. π/6 |
| 19 | If sinθ = 12/13, and sinθ > 0, then tan θ = | A. 2/5<br>B. 12/13<br>C. 13/5<br>D. 12/5 |
| 20 | 56$^{o}$=.....radians | A. 1.25<br>B. 2.56<br>C. 95<br>D. 0.98 |