D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS) APTITUDE TEST

GEOMETRY - TEST 40

1. ABC	CD is a cyclic quadrilateral and AB is	the dia	ameter of the circle. If $\angle CAB = 48^{\circ}$	٠,
then w	vhat is the value (in degrees) of ∠AD	C?		
۵١	E20	ل م\	77°	

a) 52 b)

138° c)

142° d)

2. The area of quadrilateral ABCD whose vertices in order are A(1, 1) B(7, -3), C(12, 2) and D(7, 21) is

66 sq.units a)

132 sq.units b)

124 sq.units c)

86.5 sq.units d)

3. In the given diagram O is the centre of the circle and CD is a tangent. ∠CAB and \angle ACD are supplementary to each other \angle OAC = 30°. Find the value of \angle OCB.



30° a)

20° b)

60° c)

80° d)

4. If two medians BE and CF of a triangle ABC, intersect each other at G and if BG = CG, \angle BGC = 60°, BC = 8 cm, then area of the triangle ABC is

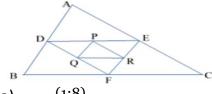
 $96\sqrt{3}$ cm² a)

 $48\sqrt{3}$ cm² b)

48 cm² c)

 $54\sqrt{3}$ cm² d)

5. In the given figure D, E and F are mid points of AB, AC and BC respectively. P, Q and R are mid points of DE, DF and EF. Find ratio of area of triangle PQR to that of parallelogram ADFE.



a)

(1:8)

(1:3)b)

(1:4)c)

(1:5)d)

6. A triangle ABC is inscribed inside a circle. Bisectors of the angle ∠A,∠B and ∠C meet the circle at P,Q and R respectively. Then $\angle PQR = ?$

90° - (1/2)∠ABC a)

45° - (1/2)∠ABC b)

180° - (1/2)∠ABC c)

 $90^{\circ} + (1/2) \angle ABC$ d)

7. The graph of the equation 4x - 5y = 20 intersects the X-axis at the point.

(2,0)a)

(5,0)b)

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS) APTITUDE TEST

c)	(4,5)	d)	(0,5)			
8. â^†	ABC is similar to â^†PQR. Length of	AB is	36 cm and length of the			
	ponding side PQ is 16 cm. If area of \hat{a}					
a) -	128 sq cm	b)	512 sq cm			
c)	345 sq cm	d)	256 sq cm			
9. In t	he given figure, area of isosceles tria	ngle A	BE is 72 cm^2 and BE = AB and AB =			
	AE II DC, then what is the area (in c	_				
A	D E C					
a)	108	b)	124			
c)	136	d)	144			
•	vo circles of equal radius of 'r' interse	ct eac	h other in such a way that both pass			
	gh center of each other. What is the le					
a)	2r	b)	r√3			
c)	rV3/2	d)	r			
	â^†ABC and â^†DEF are similar triar C is 144 cm2 then find the are of â^†.	_	and $BC = 4 \text{ cm}$, $EF = 7 \text{ cm}$, area of			
a)	252 cm ²	b)	504 cm ²			
c)	441 cm ²	d)	324 cm ²			
•	†ABC is a right angle triangle, ∠B = 9	,	D is perpendicular to AC. If AC = 14			
	C= 12 cm, find the length of CD.	,				
a)	10(2/7) cm	b)	11(2/7) cm			
c)	77 cm	d)	68 cm			
13. Tw	vo circles of radii 10cm and 8 cm inte	ersect	and the length of the common chord			
is 12 c	m. find of the common chord is 12 cm	n. Fin	d the distance between their centers.			
a)	6 cm	b)	12 cm			
c)	13.29 cm	d)	15 cm			
	iangle ABC is similar to triangle PQR		•			
respectively. If PQ = 6, QR = 8 and PR = 10, find the length of AB						
a)	2	b)	3			
c)	4	d)	5			
	a triangle ABC, the lengths of the sid					
	tively. If a point D on BC is drawn su	ich th	at the line AD bisects the ∠A			
ıntern	internally, then what is the length of BD?					

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS) APTITUDE TEST

a)	2 cm	b)	2.25 cm				
c)	2.5 cm	d)	3 cm				
16.	The length of the chord of a circle is	s 8 cm an	d perpendicular distance between				
centre and the chord is 3 cm. Then the radius of the circle is equal to:							
a)	4 cm	b)	5 cm				
c)	6 cm	d)	8 cm				
17. O is the incentre of $\triangle ABC$ and $\angle A = 30^{\circ}$ then $\angle BOC$ is							
a)	100°	b)	105°				
c)	110°	d)	90°				
18.	Find the area of the triangle formed	l by the t	hree points whose coordinates are (2				
3),	(4, 5) and (6, 3).						
a)	3 sq. units	b)	2 sq. units				
c)	4 sq units	d)	6 sq. units				
19. Find the slope of the line whose equation is $4y + 12x - 1 = 0$							
a)	- 3	b)	3				
c)	2	d)	12				
20.	Find the area of the triangle formed	l by the li	ine $3x+2y=6$, in the first coordinate.				
a)	3 sq units	b)	2 sq unit				
c)	6 sq units	d)	4 sq units				
21.	Find the center of the circle whose	equation	is $x^2 + y^2 + 6x - 10y - 120 = 0$				
a)	(-3 , 6)	_ b)	(3,5)				
c)	(-3 , -5)	d)	(-3,5)				
22.	Find the center of the circle whose	equation	is $x^2+y^2-2x-6y=12$				
a)	(2,3)	b)	(3,3)				
c)	(1, 6)	d)	(1, 3)				
23.	In which of the following lines, do t	hese two	point (1,3) and (2,6) lies?				
a)	y = x + 2	b)	y = x + 4				
c)	y = 3x	d)	y=2x				
24.	In triangle PQR length of the side Q	R is less	than twice the length of the side PQ				
	2 cm. Length of the side PR exceeds						
per	rimeter is 40 cm. The length of the si	mallest si					
a)	6	b)	8				
c)	10	d)	12				
25.	25. Given triangle ABC, such that $AB = AC$, then ratio of the angle B to angle $C = ?$						
a)	1: 2	b)	2:1				
c)	Cannot be determined since angles are not given	d)	1:1				