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ATILIM UNIVERSITY Department of Mathematics

Math103 General Mathematics Final Exam 21.12.2022 13:00		
Last Name :	Instructors : S. K. and A. G.	Signature
Name :	Time : 12:30	
ID Number :	Duration : 40 minutes	
32 Questions on 2 Page		TOTAL 100 POINTS
	YOUR SCORE :	

1.	(3p.) $10 + 24 \div 8 - 7 \times 2 - 5:$		
	a) 7	b) -6.375	c) -6
2.	(3p.) If 40% of a certain length is 400 cm, the complete length is:		
	a) 1000 cm	b) 100 cm	c) 2000 cm
3.	(3p.) 0.0000052 is written in Standard Form as:		
	a) 52×10^{-5}	b) 5.2×10^{-6}	c) 0.52×10^{-7}
4.	(3p.) If £100 is divided in the ratio 2:3, then the larger share is:		
	a) £60	b) £40	c) £90
5.	(3p.) Find the circumference of a circle that has a diameter of 10 cm:		
	a) 10π cm	b) 20π cm	c) 100π cm
6.	(3p.) Calculate the total surface area of a solid cylinder of radius 2 cm and height 10 cm:		
	a) 40π cm ²	b) 48π cm ²	c) 20π cm ²
7.	(3p.) Find the volume of a cone of radius 3 cm and height 5 cm:		
	a) 45π cm ³	b) 15π cm ³	c) 75π cm ³
8.	(3p.) $(-4x + 5) + (-x - 7)$ is equal to:		
	a) $-3x + 12$	b) $-5x - 12$	c) $-5x - 2$
9.	(3p.) When d is made the subject of the formula $\sqrt[3]{\frac{(b^5+1)}{d^3}} = a$, the answer is :		
	a) $d = \frac{\sqrt[3]{(b^5+1)}}{a}$	b) $d = \frac{b^5+1}{a^3}$	c) $d = \sqrt[3]{\frac{(b^5+1)}{a}}$
10.	(3p.) Find the the least common multiple (LCM) and highest common factor (HCF) of the numbers 10 and 23:		
	a) HCF = 230, LCM = 10	b) HCF = 230, LCM = 5	c) HCF = 1, LCM = 230
11.	(3p.) Correct 0.0068 to 2 decimal places:		
	a) 0.01	b) 0.007	c) 0.006
12.	(3p.) Correct 2.0387 to 2 significant figures:		
	a) 2.0	b) 2.03	c) 2.04
13.	(3p.) The Hexadecimal number AF_{16} expressed in Denary is:		
	a) 246	b) 175	c) 314
14.	(3p.) The correct answer for the following operation is:		
	$\begin{array}{r} 574_8 \\ + 427_8 \\ \hline \end{array}$		
	a) 1023	b) 1223	c) 1123
15.	(3p.) When the binary numbers 111101 and 1111 are added, the correct answer is:		
	a) 1001110	b) 1110010	c) 1001100
16.	(3p.) Simultaneous equations are given by $5x + 2y = 9$ and $2x + y = 7$. What is the value of x ?		
	a) -3	b) -5	c) 2
17.	(3p.) If $\log_6 2 = 0.3868$, then $2\log_6(3) + \log_6(8)$ is:		
	a) 2.6838	b) 3.3868	c) 2.7736
18.	(3p.) In common logarithmic form, the characteristic of the number 17345.893 is:		
	a) 5	b) 4	c) 6

Good Luck...