N288 Indices 2 Q1. Write down the value of $125^{\frac{2}{3}}$ (Total for question is 1 mark) Q2. (a) Write down the value of $64^{\frac{1}{2}}$ (1) (b) Find the value of $\left(\frac{8}{125}\right)^{-\frac{2}{3}}$

(2)

(Total for question = 3 marks)

(a) Write down the value of 27 ^{1/3}			
(1)			
(2) (s)			
(1)			
(2)			

(Total for question = 3 marks)

Q3.

Qo.		
(a) F	Find the value of $81^{-\frac{1}{2}}$	
(b) F	Find the value of $\left(\frac{64}{125}\right)^{\frac{2}{3}}$	(2
		(2 (Total for question = 4 marks
Q6.		(
(a) V	Vrite down the value of $36^{\frac{1}{2}}$	
(b) V	Vrite down the value of 23 ⁰	(1
(c) V	Vork out the value of $27^{-\frac{2}{3}}$	(1
		(2
		(2

(Total for question = 4 marks)

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W/	

(a)	Find the value of	$\sqrt[4]{27 \times 3 \times 10^8}$	
(b)	Find the value of	$\left(\frac{216}{1000}\right)^{\frac{2}{3}}$	(2
00			(Total for question = 4 marks
Q8 (a)	Find the value of	$\sqrt[3]{8 \times 10^6}$	
(b)	Find the value of	$144^{\frac{1}{2}} \times 64^{-\frac{1}{3}}$	(1

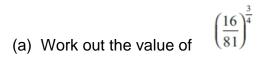
(c) Solve $3^{2x} = \frac{1}{81}$

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(Total for question = 5 marks)

(2)

Q9.



(2)

(2)

$$3^a = \frac{1}{9} \qquad \qquad 3^b = 9\sqrt{3} \qquad \qquad 3^c = \frac{1}{\sqrt{3}}$$

(b) Work out the value of a + b + c

(Total for question = 4 marks)

(2)



Q12.

Given that $9^{-\frac{1}{2}} = 27^{\frac{1}{4}} \div 3^{x+1}$ find the exact value of x.

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(Total for question = 3 marks)