Name:		Class: MSc-III		Reg	No.:
Quiz 2: Real Analysis II					
	e the most correct option be rewritten selection has no		crossing t	the box.	
Question 1 Whi ond kind:	ch is/are improprer integra	al(s) of sec- Ques	stion 4	$\int_{1}^{2} \frac{dx}{(x-1)^{m}} $ is d	ivergent iff
	3) $\int_{1}^{2} \frac{1}{x^2 + 1} dx$ (C) $\int_{-1}^{1} \frac{2}{x^2 + 1} dx$		$m < 1$ . $m \le 1$ .		
C only. B only.	A and C  A and B	Ques Sonly.		If $\lim_{x \to \infty} f(x) = m$ > 0 such that	, then for all real $\epsilon > 0$ ,
Question 2 Find convergent	d the value of $p$ for which			$ x  < \epsilon \text{ for all } x < N$ $ x  < \epsilon \text{ for all } x > N$	
				$ x  < \epsilon \text{ for all } x < N$ $ x  > \epsilon \text{ for all } x > N$	
Question 3 A seand only if	equence of real numbers is	Cauchy if Ques	stion 6	If $f,  f  \in \mathcal{R}(\alpha; a, a)$	b), then one has
it is divergen		onverge.	ou -	$\leq \int_a^b  f  d\alpha.$ $\leq \int_a^b f d\alpha$	

Name:	Class: MSc-III	Reg. No.:
	Quiz 2: Real Analysis I	[
Instructions:  • Please choose the most correct of the spoiled or overwritten selection	ption by filling or ticking or crossing has no credit.	the box.
<b>Question 1</b> Which is/are improprer ond kind:		If $\lim_{x\to\infty} f(x) = m$ , then for all real $\epsilon > 0$ , $> 0$ such that
	only.	$ x  < \epsilon \text{ for all } x < N.$ $ x  < \epsilon \text{ for all } x < N.$ $ x  > \epsilon \text{ for all } x > N.$ $ x  < \epsilon \text{ for all } x > N.$
<b>Question 2</b> Find the value of $p$ for	which $\int_0^1 \frac{1}{x^{p+1}} dx$ is <b>Question 5</b>	$\int_{1}^{2} \frac{dx}{(x-1)^{m}}$ is divergent iff
	<u>—</u>	
<b>Question 3</b> A sequence of real num and only if	abers is Cauchy if Question 6	If $f$ , $ f  \in \mathcal{R}(\alpha; a, b)$ , then one has
it is positive.	may converge	$\leq \int_{a}^{b} f d\alpha \qquad $

Name:	Class: MSc-III	Reg. No.:			
Quiz 2: Real Analysis II					
Instructions:  • Please choose the most correct option • Spoiled or overwritten selection has no		g the box.			
Question 1 A sequence of real numbers i and only if	s Cauchy if Question 4	$\int_{1}^{2} \frac{dx}{(x-1)^{m}}$ is divergent iff			
it is convergent. it is pos	itive.	$m \ge 1.$ $m < 1.$			
<b>Question 2</b> Which is/are improprer integrond kind:  (A) $\int_0^1 \frac{1}{x} dx$ (B) $\int_1^2 \frac{1}{x^2 + 1} dx$ (C) $\int_{-1}^1 \frac{1}{x^2 + 1} dx$ (C) $\int_{-1}^1 \frac{1}{x^2 + 1} dx$ A and E \( \text{ \text{C}} \) Only.	$\frac{2x+1}{x+1}dx \qquad \qquad$	If $f,  f  \in \mathcal{R}(\alpha; a, b)$ , then one has $ x  \leq \int_a^b f d\alpha \qquad $			
Question 3Find the value of $p$ for which convergent		$ m  > \epsilon$ for all $x > N$ . $ x  < \epsilon$ for all $x > N$ . $ x  < \epsilon$ for all $x < N$ . $ x  < \epsilon$ for all $x < N$ .			

Name:	Class: MSc-III	Reg. No.:
Q	uiz 2: Real Analysis I	I
Instructions:  • Please choose the most correct option • Spoiled or overwritten selection has a		; the box.
<b>Question 1</b> A sequence of real numbers and only if	*	If $\lim_{x\to\infty} f(x) = m$ , then for all real $\epsilon > 0$ , $N > 0$ such that
	onvergent. $\boxed{  m-f(x) }$	$ m  > \epsilon \text{ for all } x > N.$ $ x  < \epsilon \text{ for all } x < N.$
<b>Question 2</b> Find the value of <i>p</i> for which convergent	$\int_{1}^{1} \frac{1}{dx} dx$ is	$ m  < \epsilon \text{ for all } x < N.$ $ x  < \epsilon \text{ for all } x > N.$
		If $f,  f  \in \mathcal{R}(\alpha; a, b)$ , then one has $   \ge \int_a^b  f  d\alpha. \qquad \qquad   \int_a^b f d\alpha \ge \int_a^b  f  d\alpha. $
Question 3 Which is/are improprer integond kind:	gral(s) of sec-	$\alpha \geq \int_a^b f d\alpha. \qquad \left  \int_a^b f d\alpha \right  \leq \int_a^b f d\alpha$
(A) $\int_0^1 \frac{1}{x} dx$ (B) $\int_1^2 \frac{1}{x^2 + 1} dx$ (C) $\int_{-1}^{2} \frac{1}{x^2 + 1} dx$	$\frac{1}{x} \frac{2x+1}{x+1} dx$ Question 6	$\int_{1}^{2} \frac{dx}{(x-1)^{m}} \text{ is divergent iff}$
	C only.	

Name: Cla	ss: MSc-III	Reg. No.:		
Quiz 2: Real Analysis II				
<ul> <li>Instructions:</li> <li>Please choose the most correct option by fillir</li> <li>Spoiled or overwritten selection has no credit</li> </ul>		ng the box.		
Question 1 A sequence of real numbers is Cauch and only if	-	If $\lim_{x\to\infty} f(x) = m$ , then for all real $\epsilon > 0$ , $N > 0$ such that		
<ul><li>it may converge.</li><li>it is divergent.</li><li>it is positive.</li></ul>	$\boxed{ }  m-j $	$ f(x)  < \epsilon \text{ for all } x < N.$ $ f(x)  < \epsilon \text{ for all } x > N.$		
<b>Question 2</b> Find the value of $p$ for which $\int_0^1 \frac{1}{x^{p+1}} dx$ convergent	dric =	$-m  < \epsilon$ for all $x < N$ . $-m  > \epsilon$ for all $x > N$ .		
	Question 5	If $f,  f  \in \mathcal{R}(\alpha; a, b)$ , then one has $ \alpha  \le \int_a^b f d\alpha$ $\qquad \qquad \qquad$		
Question 3 Which is/are improprer integral(s) of ond kind:	'	$ \alpha  \le \int_a^b  f  d\alpha.$ $ \alpha  \ge \int_a^b  f  d\alpha \ge \int_a^b  f  d\alpha.$		
(A) $\int_0^1 \frac{1}{x} dx$ (B) $\int_1^2 \frac{1}{x^2 + 1} dx$ (C) $\int_{-1}^1 \frac{2x + 1}{x + 1} dx$	Question 6	$\int_{1}^{2} \frac{dx}{(x-1)^{m}} \text{ is divergent iff}$		
A and C only. B only.  A and B only. C only.				

Name:		Class: MSc-III		Reg. No.:		
Quiz 2: Real Analysis II						
Instructions:  • Please choose the m • Spoiled or overwrit	-		g or crossing	the box.		
Question 1 Find the v convergent	alue of $p$ for which	$\int_0^1 \frac{1}{x^{p+1}} dx \text{ is}$	Question 4	$\int_{1}^{2} \frac{dx}{(x-1)^{m}} $ is d	ivergent iff	
ond kind:	re improprer integra $C^1$	al(s) of sec-			$\left  \int_a^b f d\alpha \right  \le \int_a^b f d\alpha$	
(A) $\int_0^1 \frac{1}{x} dx$ (B) $\int_1^2 \frac{1}{x} dx$ (B) $\int_1^2 \frac{1}{x} dx$ A and C only. $\Box$ C only.	$\frac{1}{x^2 + 1} dx  (C) \int_{-1}^{2} dx$		Question 6	Su -	$\left  \int_{a}^{b} f d\alpha \right  \ge \int_{a}^{b}  f  d\alpha.$ then for all real $\epsilon > 0$ ,	
Question 3 A sequence and only if	e of real numbers is	s Cauchy if		$ n  < \epsilon \text{ for all } x < N$ $ n  < \epsilon \text{ for all } x > N$		
☐ it may converge. ☐ it is positive.	it is condition it is dive	9		$ x(t)  < \epsilon \text{ for all } x < N$ $ x(t)  < \epsilon \text{ for all } x > N$		