# **Theory**

People's Republic of China

AT1

学生编码						
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## A. 星系团

Question	Answer	Marks
A.1	U =	
(1.0 pt.)		
A.2	$V_{rc}$ =	
(0.5 pt.)		
A.3	$K_{ave} =$	
(1.5 pt.)		
	$v_{rms} =$	
A.4	$\gamma =$	
(1.7 pt.)		
A.5	$M_{dm} =$	
(0.5 pt.)		

## B. 星系中的暗物质

Question	Answer	Marks
B.1	For $r < R_g$ :	
(0.8 pt.)	v(r) =	
	For $r \ge R_g$ :	
	v(r) =	
	Sketch (画出) $v(r)$ for $r < R_g$ and $r \ge R_g$ :	

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B.2	$m_R = m'(R_g) =$	
(0.5 pt.)		
B.3	For $r < R_g$ :	
(1.5 pt.)	$\rho(r) =$	
	For $r \ge R_g$ :	
	$\rho(r) =$	

#### C. 星际气体和暗物质

Question	Answer	Marks
C.1		
(0.5 pt.)	$\frac{dP}{dr} =$	
C.2	m'(r) =	
(0.5 pt.)		
C.3	$ \rho_{dm}(r) = $	
(1.0 pt.)		

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#### ----- DO NOT WRITE BELOW -----

SECTION	SCORE
А	
В	
С	
TOTAL	