Section A Marking Scheme

{ points within this bracket can be in any order.

Part 1

Dave Jones		Tina Lee	
		1.4	normal
1.1	above average	1.5	average
1.2	moderate	1.6	acute
1.3	fair	1.7	good

2.1 | A | ✓ |

3.1 put your seat upright

3.2 fasten your seatbelt

3.3 place your feet on the footrest

3.4 remove your glasses

3.5 place your hands on the armrests

3.6 press the red button if you need help

4.1 expansion

4.2 opaque

4.3 join

4.4 transparent

4.5 stars

4.6 galaxies

4.7 earth

4.8 starts / begins / evolves

4.9 divide / separate

5.1 15 billion

6.1 (there may be) another ice age

6.2 global warming (will stop ice forming)

6.3 (the) earth's rotation may change

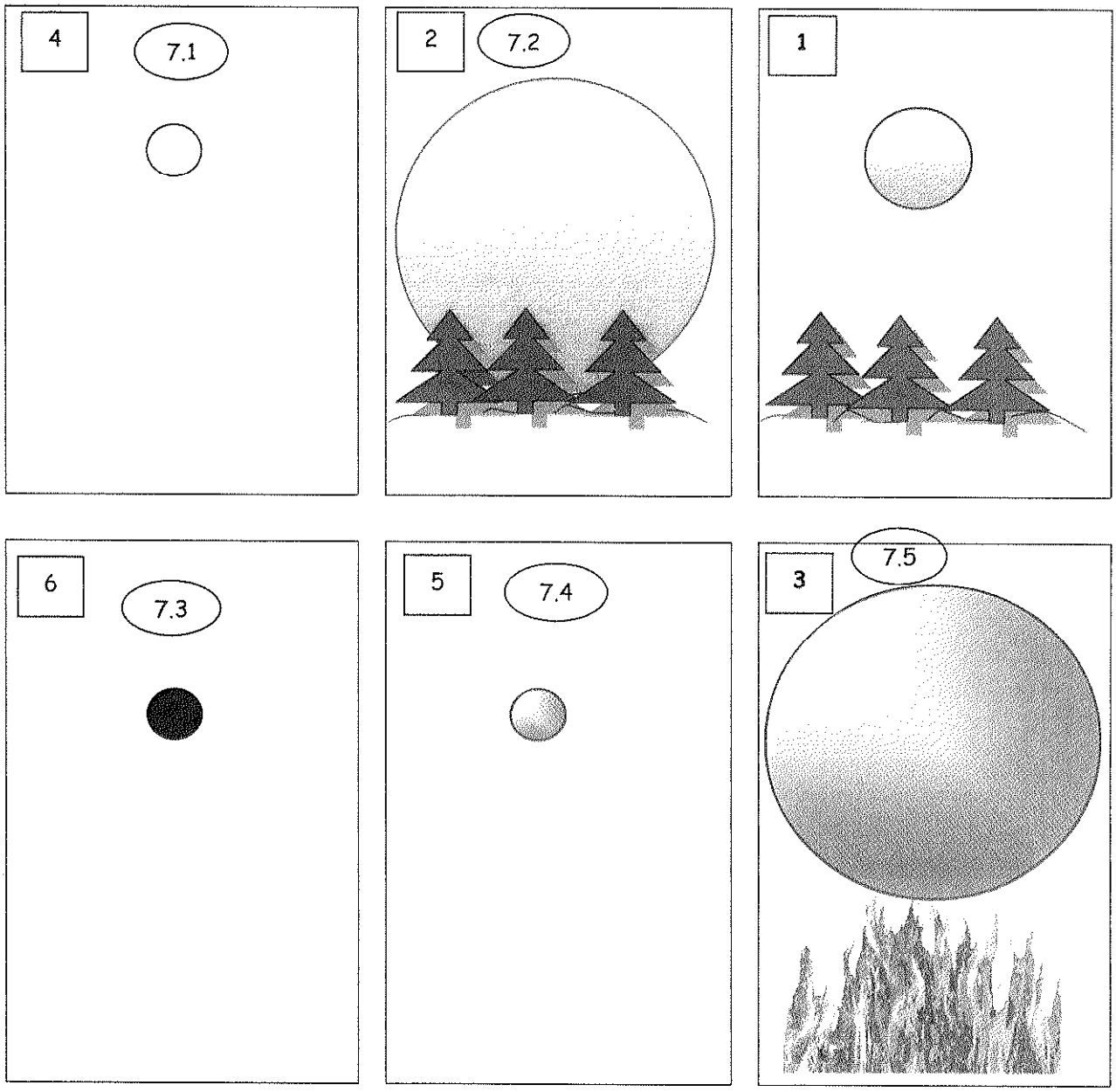
6.4 (a) meteor will hit (the) earth

6.5 (we can) destroy it (before it hits)

6.6 (some meteors may be) too large to destroy

6.7 the sun will swallow (up) the earth

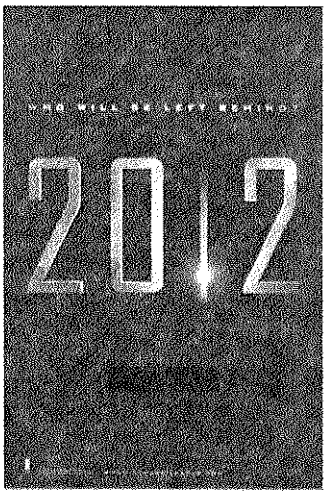
6.8 (the) oceans will boil // boiling oceans



Part 2

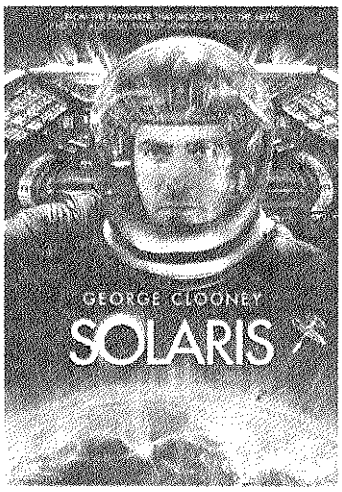
chosen by: 8.1

Frank



chosen by: 8.2

Chris

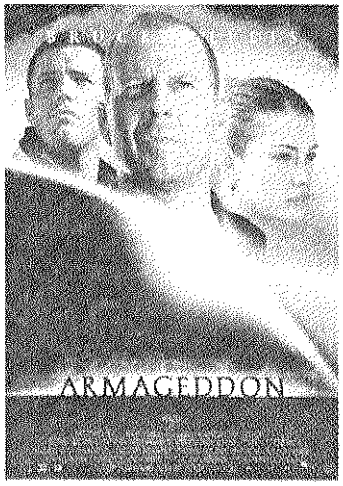


chosen by: 8.3

Amelia

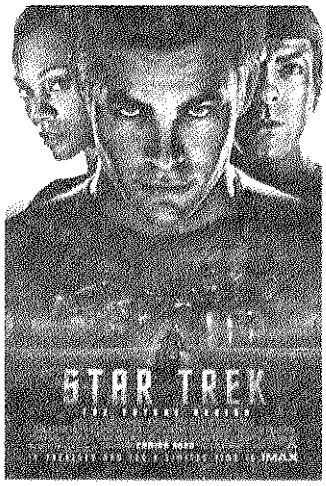
chosen by: 8.4

Orwell



chosen by: 8.5

Dave



chosen by: 8.6

Tina

Scenario A		Scenario B	
9.1	The Big Crunch	9.7	The Big Freeze
9.2	gravity will increase	9.8	the universe expands forever / further and further
9.3	the universe will stop expanding		
9.4	the universe will collapse	9.9	the distance between stars increases
9.5	incredible heat will destroy all life	9.10	the universe will get colder
9.6	the universe disappears into a black hole	9.11	extreme cold will destroy all life

10.1 can we / it operate machines?

10.2 can we / it send and receive information?

11.i (we / it can) change genes to lower body temperature

11.ii (we / it can) become robots

11.iii (we / it can) transform into pure thought

12.a True

12.b False

12.c True

12.d False

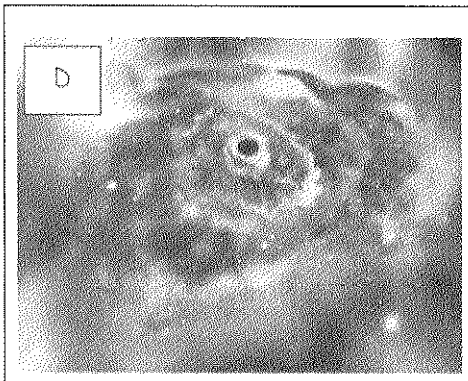
12.e True

Part 3

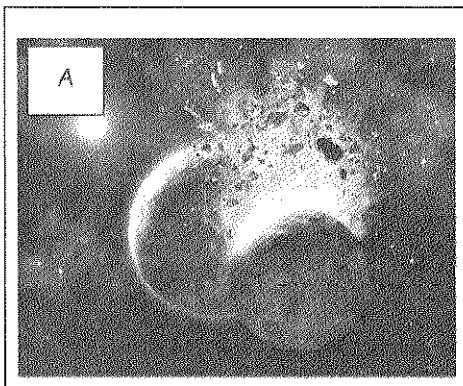
13.1

The Big Rip	2
The Multiverse	1
Cosmic Uncertainty	3
The Big Bounce	4

14.1

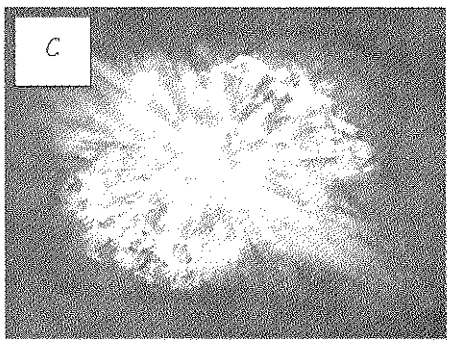


14.2



14.3

14.4



Method		Possible problem	
15.1	build an atom smasher	15.2	difficult to maintain (enough) energy
15.3	create a baby universe	15.4	the baby universe / it may be sucked back into a black hole
15.5	make a warp drive machine	15.6	(it) doesn't allow us to escape (our) universe
15.7	find a wormhole	15.8	(wormholes are) unstable

	Dave	Frank	Tina	Amelia	Orwell
Very likely		✓	✓		✓
Possible				✓	
Very unlikely	✓				

16.1 16.2 16.3 16.4 16.5

17.a (the) laws of physics

17.b (the) composition of matter

17.c (the) mysteries of space

17.d (the) shape of the universe

17.e (the) nature of time

17.f (the) science of singularities

18.1	**Dave**	confusion	✓
18.2	**Tina**	amazement	✓