Name: _____

Abiturprüfung 2011

Englisch, Leistungskurs

Aufgabenstellung:

1. Describe the situation presented in the extract, the relationship of the two characters and the views expressed by them. *(Comprehension)* *(16 Punkte)*

2. Examine the way in which the characters' relationship is reflected in their dialogue. Consider the content and structure of the dialogue as well as the chosen point of view. *(Analysis)* *(24 Punkte)*

3. Choose <u>one</u> of the following tasks:

3.1 Discuss Tom Aldous' motives and his ideas on how to cope with the global energy crisis. Support your view with reference to work done in class. *(Evaluation: comment)* *(20 Punkte)*

3.2 Later that day Professor Beard will address sixth formers at a local secondary school on ways of coping with the global energy crisis. Write the introductory statement of his speech in which he also refers to his conversation with Tom Aldous. *(Evaluation: re-creation of text)* *(20 Punkte)*

Materialgrundlage:

- Ausgangstext: Literarischer Text (Romanauszug)
  Fundstelle: Ian McEwan, *Solar*, London: Jonathan Cape, 2010, S. 24 – 27

  Wortzahl: 799

Zugelassene Hilfsmittel:

- Ein- und zweisprachiges Wörterbuch

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Ian McEwan

Solar

The first part of McEwan's novel is set in the year 2000. Professor Michael Beard, winner of the Nobel Prize for Physics, has been appointed first head of the National Centre for Renewable Energy, a government research laboratory in Reading, a university town west of London. On his weekly visits to the site Professor Beard is picked up at the station by Tom Aldous, one of the post-doctoral physicists working at the Centre.

His name was Tom Aldous. He told the Chief in that first chat that he had applied to work at the Centre because he thought the planet was in danger, and that his background in particle physics might be of some use, and that when he saw that Beard himself was going to lead the team, Beard of the Beard-Einstein Conflation, he, Tom Aldous, excitedly assumed that the Centre would have as its prime concern solar energy, particularly artificial photosynthesis and what he called nano-solar, about which he was convinced …

"Solar energy?" Beard said mildly. He knew perfectly well what was meant, but still, the term had a dubious halo of meaning, an invocation of New Age Druids in robes dancing round Stonehenge at Midsummer's dusk. He also distrusted anyone who routinely referred to "the planet" as proof of thinking big.

"Yes!" Aldous smiled with his many teeth into the rear-view mirror. It would not have occured to him that the Chief was not an expert in the field. "It's all out there, waiting for us to understand how to use it, and when we do, we'll be amazed we ever thought of burning coal and oil and the like."

[…]

"Do you think we could ever get by," [Beard] asked, stifling a yawn, "without coal and oil and gas?"

Aldous was taking them at a clip around a giant roundabout as big and busy as a racing circuit, that slung them centrifugally out upon a descending slip road and down onto the motorway, into the redoubled roar of onrushing vehicles, and trucks the size of five terraced houses whining in file towards Bristol at eighty-five miles per hour, and everyone else lining up to shoot past. Exactly so – how long could this go on? Beard, weak and tender from sleeplessness, felt belittled. The M4 demonstrated a passion for existence which he could no longer match. He was for B-road, a cart track, a footpath. Shrinking inside his Harris tweed jacket, he listened to Tom Aldous, who spoke with the lilting confidence of a prize pupil providing the answers he thinks he knows his teacher wants.

"Coal and then oil have made us, but now we know, burning the stuff will ruin us. We need a different fuel or we fail, we sink. It's about another industrial revolution. And there's no way round it, the future is electricity and hydrogen, the only two energy carriers we know that are clean at the point of use."

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"So, more nuclear power."

The boy took his eyes off the road to lock with Beard's in the mirror – but for too long, and the older man, tensing on the back seat, looked away to encourage the driver's gaze back on the mayhem outside.

"Dirty, dangerous, expensive. But you know, we've already got a nuclear power station up and running with a great safety record making clean energy converting hydrogen to helium at no cost, nicely situated ninety-three million miles away. You know what I always think, Professor Beard? If an alien arrived on earth and saw all this sunlight, he'd be amazed to hear that we think we've got an energy problem. Photovoltaics! I read Einstein on it, I read you. The Conflation is brilliant. And God's greatest gift to us is surely this, that a photon striking a semiconductor releases an electron. The laws of physics are so benign, so generous. And get this. There's a guy in a forest in the rain and he's dying of thirst. He has an axe and he starts cutting down the trees to drink the sap. A mouthful in each tree. All around him is a wasteland, no wildlife, and he knows that thanks to him the forest is disappearing fast. So why doesn't he just open his mouth and drink the rain? Because he's brilliant at chopping down trees, he's always done things this way, and he thinks that people who advocate rain-drinking are weird. That rain is our sunlight, Professor Beard. It drenches our planet, drives our climate and its life. A sweet rain of photons, and all we have to do is hold our cups! D'you know, I read this guy saying somewhere that less than an hour's worth of all the sunlight falling on the earth would satisfy the whole world's needs for a year."

Unimpressed, Beard said, "And what was this guy taking as his measure of solar irradiance?"

"One quarter of the solar constant."

"Too optimistic. You'd need to halve that again."

[...]

Beard snapped the pages of his speech to indicate that the conversation was at a close. The essence of a crank was, firstly, to believe that all the world's problems could be reduced to one, and be solved. And secondly, to go on about it non-stop.

Annotations:

4 Beard-Einstein Conflation *here* reference to Beard's discovery relating to the interaction of matter and electromagnetic radiation. It was Beard's contribution to quantum mechanics that won him the Nobel Prize. – **23 f. Harris tweed jacket** tweed jackets made out of fabric handwoven on the island of Harris in the Outer Hebrides – **39 f. that a photon striking a semiconductor releases an electron** Aldous refers to the basic principle of photovoltaics – **50 solar irradiance** measurement of the amount of sunlight – **51 solar constant** fixed amount of constant solar radiation on a specific area – **53 pages of his speech** *here* the manuscript of a speech Beard was to give later that day