

ÜDS

# Fen Bilimleri

Tüm Diyalog Soruları



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**1. Mary : What's in that bottle?**

**Paul : Sulphuric acid.**

**Mary : ----?**

**Paul : Yes. I am sorry. I'll do it straight away.**

- A) Don't you know that all dangerous substances have to be properly labelled
- B) Do you mind it those some of it in my experiment
- C) Do you know where all the acids and other dangerous substances are kept
- D) Then what is it doing here
- E) You haven't been burned, have you

**2. Roger : Where will the new bridge be?**

**Bill : Five miles downstream.**

**Roger : ----?**

**Bill : No, the rock formation isn't suitable.**

- A) People living there won't be pleased, will they
- B) Have the engineers submitted their plans
- C) Couldn't they build it nearer here
- D) But the river is very wide there
- E) There's already a good road there

**3. David : I thought there was an abundance of aluminium in the earth's crust.**

**Peter : There is.**

**David : ----?**

**Peter : Because most of it is not in a form that can be removed and processed at profit.**

- A) Then what is special about bauxite
- B) Is it really necessary to import so much
- C) Where are the major deposits in France
- D) Then why is it in short supply
- E) Are processing costs still going up

**4. Fred : What's the first item on the agenda?**

**Ben : Rubbish disposal and the recycling of waste.**

**Fred : ----**

**Ben : I know it is. But no one takes it seriously. One day we'll have to.**

- A) It just can't be done under these circumstances.
- B) But we discussed that last week.
- C) Then what follows?
- D) Who's brought this subject up?
- E) That's always on the agenda.

**5. Farmer : What can I do to increase the harvest?**

**Expert : Well, there are a number of ways I can suggest. One is irrigation.**

**Farmer : ----?**

**Expert : Quite a long, I'm afraid.**

- A) Yes, but how much expense will that entail
- B) You mean a modern irrigation method
- C) Are you trained in irrigation engineering
- D) Do you think there is plenty of underground water
- E) The rainfall in this region is adequate, isn't it

**6. Jennifer : I like to buy clothes made from natural fibres.**

**Polly: But why? Man-made fibres have certain advantages you know.**

**Jennifer : ----.**

**Polly: The man-made ones are usually harder wearing and easier to wash and iron.**

- A) What about their disadvantages?
- B) Such as what?
- C) No, I'm not going to change my mind!
- D) And what about natural fibres?
- E) But the jacket you are wearing is made from a natural fibre.

**7. Andrew: Do you happen to know anything about the Nye Committee?**

**Colin: Yes, it was appointed in 1934 to investigate the munitions industry following allegations that armament firms were working against the cause of peace.**

**Andrew: ----.**

**Colin: The allegations were found to be true, and therefore, the industry was nationalized.**

- A) What were the results of their investigations?
- B) What a world we live in!
- C) How is it you know all this?
- D) I wonder just how much money these people make out of armaments.
- E) How long did these investigations take them?

**8. Researcher: We were using an instrument that measures the optical clarity of water.**

**Interviewer: ----.**

**Researcher: It's very simple, really, it shines a light from point A to point B. And if there is less light at the end, it's because there are particles in the water.**

- A) And how does it work?
- B) How long have you been using it?
- C) Yes, I've heard about them. They aren't very accurate, are they?
- D) What were you hoping to learn?
- E) How accurate can such an instrument be?

**9. Mark: What is traffic physics?**

**Peter: Oh, everyone is talking about it these days in Germany.**

**Mark: ----.**

**Peter: Yes it is. For instance one method treats cars on a highway as molecules in a gas that want to move in one direction at a certain velocity.**

- A) Perhaps they are doing something similar on Dutch roads.
- B) Well, tell me about it.
- C) It sounds rather improbable to me. What do you think of it?
- D) Why in Germany? Has it originated there?
- E) But what is it? Is it really scientific?

**10. Brian: The subject of whether there are any civilisations than that of Earth seems to be back in favour.**

**James : Yes. It rather got forgotten after Fermi's question.**

**Brian: ----.**

**James : He simply asked "if extraterrestrials are commonplace, where are they?"**

- A) But a lot of people seem pretty sure that there are a lot of earth-like planets.
- B) He was a nuclear physicist, wasn't he?
- C) No one has so far managed to detect radio transmissions from other planets.
- D) What was that? I've forgotten all about it.
- E) Yes, except by the writers of science fiction.

**11. Mark:**

**- The new developments in advertising techniques are really very interesting.**

**Peter:**

**- ----**

**Mark:**

**- Well, here's one of the big petrol companies flaunting its commitment to environmental considerations.**

**Peter:**

**- Yes, that certainly is a new approach.**

- A) Give me an example.
- B) I make a point of never believing an advertisement.
- C) The techniques may have changed, but have the aims?
- D) The aim of every advertisement is to deceive!
- E) Perhaps. But how much are they costing us?

**12. Chris:**

**- You know I'd love to spend a holiday in the Arctic.**

**Brian:**

**- ---**

**Chris:**

**- No, certainly not I'd go in the summer season. And**

**I'm sure there would be lots to see.**

**Brian:**

**- True. But I prefer to see it all on the TV.**

- A) Actually. I would, too. If only to see the flora.
- B) Whatever for? Just to be doing something different?
- C) So would I. We see the polar bears and the seals on TV, but it would be marvellous to see them in reality.
- D) Well, yes if it weren't for the cold!
- E) I couldn't afford it, And I'll be surprised if you can

13. James:

- **What do you know about the uses of hydrogen peroxide?**

Gary:

- **It's a bleach, isn't it? And rather a harsh one at that.**

James:

- ---

Gary:

- **Oh! I certainly didn't know all that!**

- A) That's right. It is incompatible with most common metals and so is usually stored in aluminium containers.
- B) But it has a great many other uses. Would you like me to list them all for you?
- C) Some say the Germans used it in the jet propulsion unit of the M.E. 163 plane.
- D) Strengths higher than 90% are obtained by refrigeration techniques.
- E) Yes. But it has a lot more uses. For instance, it's used in anti-shrink treatments in textiles and as a germicide in cosmetic preparations.

14. Peter:

- **I can't understand why aluminium is so important in industry. It's so light.**

Robert:

- **But that's one of its great advantages.**

Peter:

- ---

Robert:

- **It's resistant to corrosion by, among other things, chemicals and foodstuffs.**

- A) What are some of its uses?
- B) But why is it an advantage?
- C) But is it strong enough?
- D) Really? What's another?
- E) Costwise, is it economical?

15. Mrs Fenton:

- **The sewing machine needs oiling. Will any oil do?**

Mr Fenton:

- **No. Any oil will not do.**

Mrs Fenton:

- ---

Mr Fenton:

- **You are quite wrong. The selection of the correct lubricant is extremely important and depends on many factors.**

- A) I used the baby's oil last time, too.
- B) Well, you'd better do the job yourself.
- C) People are always talking about them, but do they do any good?
- D) So what oil will do?
- E) But why not? Surely oil is oil!

16. Paul:

**It says here that workers in the poorer countries are less productive than those in the richer ones.**

Colin:

----

Paul:

**But why?**

Colin:

**Because, among other things, their machinery is less advanced.**

- A) That used to be the case, but it isn't any longer.
- B) I find that hard to believe.
- C) I don't think it's been proved.
- D) Yes, that's true.
- E) One shouldn't generalize like that.

17. Andy:

**Did you know that, by flying in formation, aircraft can reduce consumption by up to 25%?**

David:

----

Andy:

**Really? How interesting.**

David:

**Yes. The leader has to work hardest; so on long flights, the stronger birds take it in turn to lead.**

- A) Well I'm not surprised. It's a question of air displacement. And it's why birds fly in formation.
- B) Is that so? Personally, I find it hard to believe!
- C) I wonder why! I wonder if that's why birds like to fly in formation.
- D) I don't think they often achieve a 25 % reduction in fuel consumption. I think it rather depends on how fast they are flying.
- E) Yes, that's right. Have you never wondered why birds so often fly in formation?

18. Alec:

**Have you been following this debate about how far the industrial scientist is free?**

Peter:

----

Alec:

**You clearly have been following the debate.**

Peter:

**Yes, I have; and it's all very disturbing.**

- A) No I haven't. What's been happening?
- B) I think you mean not free. He's hired for a particular job and the data obtained becomes the property of the company that pays for the research.
- C) I read something about in the newspaper last week, and then forgot all about it.
- D) There's been a lot about it on the TV recently, but as it doesn't concern us, I've rather ignored it.
- E) A good scientist is always free. It is only the second-rate ones who complain and feel they are being ill-treated. I'm quite out of sympathy with the whole issue.

19. Pat:

**Listen to this! In Australia, they are starting to recycle mobile phones.**

Stan:

----

Pat:

**The old phones are being melted down and the harmful gases extracted for commercial re-use.**

Stan:

**Good for them, I hope other countries follow suit.**

- A) Well, that is interesting! Tell me more.
- B) Yes, I read about that. I'm not convinced.
- C) Yes I know. I reckon it could be dangerous.
- D) That's just a newspaper article. Don't take it seriously.
- E) The next article on dormant seeds is much more interesting.

20. David:

**Do you think there are significant differences between organic and non-organic foods?**

Bob:

----

David:

**Yes, that's what it says here. There are apparently a great many extraneous variables.**

Bob:

**Exactly. In my opinion, though, the organic tastes better.**

- A) Probably not; but I'm not a fan of the organic.
- B) Well, certainly not as regards the flavour.
- C) It's hard to say. And it's not easy to research the subject.
- D) It stands to reason that there are.
- E) Frankly, I don't take the debate seriously.

21. Mel :

**- Funny how one always focuses on the nearest and most immediate danger and not on the more remote and longer lasting one!**

Frank :

----

Mel :

**- Volcanoes. Did you know that among other things, the ash from them contaminates water, destroys crops and clogs the engines of aircraft?**

Frank :

**- No I didn't; but I can believe it.**

- A) I think you're exaggerating the situation.
- B) Why do you say that?
- C) Today we face all sorts of dangers, don't we?
- D) I suppose the remote one is so easy to recognise.
- E) What have you been reading about?

22. Reg :

- **Why are people so excited about the discovery of vast quantities of ice on Mars?**

Jim :

- ----

Reg :

- **Then it is a lucky find. Is there a large quantity of it?**

Jim :

- **Enough to fill Lake Michigan twice over if it were melted!**

- A) Because one of the problems of a manned expedition to Mars has always been the carrying of enough water to support the crew.
- B) Because most of the ice is situated around the south pole though there may also be some in the north.
- C) Because, as spring approaches, the glaciers are slowly receding.
- D) That's why the Mars Express mission will use radar to search down several kilometres.
- E) The crucial question, of course, is still "What are the implications for life?" and until we send a manned expedition there we can't know for certain.

23. Andy :

- **I hear they are trying to improve the design of stadiums for the World Cup.**

Mike :

- ----

Andy :

- **What use will they be?**

Mike :

- **They'll enable sufficient sunlight to get through to enable the grass to grow.**

- A) The main problem is keeping the playing surface in perfect condition.
- B) Yes; and at huge expense, too, I believe.
- C) I'm not sure that all these technical innovations really are necessary.
- D) That's right; they are experimenting with semitransparent fabric roofs over the side stands.
- E) In Sapporo they came up with something quite exotic, with two arenas.

24. Peter :

- **We had double-glazing installed throughout the house last year and are immensely pleased with it.**

Colin :

- ----

Peter :

- **As far as I'm concerned, the main one is a reduction in fuel costs due to efficient insulation.**

Colin :

- **Yes, that is important. Presumably, it also cuts down on noise.**

- A) That must have cost you quite a lot!
- B) Is it really worthwhile?
- C) Just what are the benefits?
- D) My wife's keen on it, but I'm not so sure.
- E) Does it really achieve all they promise?

25. Interviewer :

- **What advice do you have for people wishing to go on a space trip?**

Space tourist :

- ----

Interviewer :

- **Why do you say that?**

Space tourist :

- **Well, I had to train for seven months, but the training period will gradually be reduced, and so will the costs.**

- A) Ask me that when I get back.
- B) I'd say wait a while. It's going to get far more accessible quite soon.
- C) Make sure that you really want to! There's more hard work involved and less fun than most people imagine.
- D) Make sure you are physically very fit indeed!
- E) Well, I wished to; I worked hard at it; and now I'm going!

26. Malcolm :

**Do rocket launches damage the ozone layer?**

Jude :

**At present, no. The emission of ozonedamaging nitrogen compounds is negligible.**

Malcolm :

----

Jude:

**That would be a different story. Dangerous emissions would soar.**

- A) Are all rockets launched by means of the same solid fuels?
- B) And also, of course, there aren't many space launches happening.
- C) But what if they start to launch rockets with hydrazine?
- D) I thought hydrazine was a nitrogen-based fuel.
- E) But can we be sure of that? New studies keep revealing new facts!

27. David :

**Have you had a good look at the new seismic hazard map yet?**

Adam :

----

David :

**But it makes one very important point: the greatest hazard areas contain half the world's largest cities.**

Adam :

**Is that so? That's pretty scary, isn't it?**

- A) No, I haven't. It looks pretty informative, though.
- B) Yes, I have. It's been well-compiled and wellannotated, hasn't it?
- C) Why do you say that? Did you find something interesting in it?
- D) No, I haven't. Just a quick glance. It didn't seem to say much.
- E) Yes. It's good. You ought to take a look at it yourself.

28. Louis :

**Have you considered getting a handheld computer instead of a desktop?**

Mavis :

----

Louis :

**That's not true at all. The handheld is a miracle of miniaturization. And they can exchange information with desktop PCs.**

Mavis :

**I didn't realize that. I must look into the matter further.**

- A) No, I haven't. They do little more than store your diary and address book.
- B) No. I couldn't possibly afford one of them!
- C) Well, what do you think? I really don't know anything about them.
- D) Except for size, I suppose they are not very different from desktop PCs. Are there any other big differences?
- E) I always assumed that recharging them would be a problem. Is it?

29. Harry :

**Have you read that article on global warming that I put on your desk?**

Clive :

**Yes I have. I was rather impressed by the assertion that changes in land use aren't being sufficiently taken into consideration.**

Harry :

----

Clive:

**It does indeed.**

- A) So was I. It stands to reason that forests help to cool the atmosphere as water evaporating from leaves absorbs heat.
- B) In fact the planting of forests to absorb carbon dioxide can actually lead to warming in areas of heavy snowfall.
- C) The subject is far more complex than I had realized.
- D) Obviously a great deal more research into the subject is required.
- E) Among the factors they included were estimated changes in forest sizes and areas of farmland.

30. Gerald :

**My son seems to be set on getting a job in air traffic control.**

Roger :

----

Gerald :

**Oh yes. Academically he's fully up to the job. But the strain must be terrible! Think of the responsibility!**

Roger :

**Some people like it!**

- A) All I know is that current networks won't be able to cope with the increasing amount of aircraft in Europe.
- B) I tried it once; but, it wasn't the right sort of job for me!
- C) It's a job that attracts a lot of young people. Let him try it.
- D) Don't you agree that the monitoring of traffic through our airports mustn't be taken lightly?
- E) And presumably you're not too keen on the idea? Has he got the right qualifications?

31. Patrick :

**- It seems that physicists are better at predicting trends on the stock markets than economists are.**

Larry :

----

Patrick :

**- I don't. They are much better grounded in mathematics.**

Larry :

**- That could be so.**

- A) Rubbish! That can't possibly be true.
- B) I find that hard to believe!
- C) That's pretty controversial statement!
- D) How ridiculous! Where did you read that?
- E) That's not likely! What do you think?

32. Mary :

**- Did you know that octopuses are good at camouflage?**

Emma :

----

Mary :

**- Not in the first year or two of life. Then they need it for protection. The big ones use it more for catching unwary prey.**

Emma :

**- That's very clever of them.**

- A) No, I didn't. But what do they need camouflage for? They're so big and strong!
- B) Do you mean they change color or something like that?
- C) What color are they? The color of rock, I suppose, so they can look like a rock.
- D) No, that's news to me. Why do they need to use camouflage?
- E) No, I didn't. What else have you learned about them?

33. Andy :

**- There are several posts advertised here for Marine Biogeochemists. You might take a look at them.**

Roger :

**- I certainly will. Are they offering research opportunities?**

Andy :

----

Roger :

**- Thanks. I do so want to get back into a laboratory again.**

- A) What's wrong with the research we're doing here?
- B) I expect so. I haven't read them very carefully, you know.
- C) Why do you ask that? Are you interested in research?
- D) Why are you so interested in research? There's no money in it.
- E) Yes, they are. That's why I'm drawing your attention to them.

34. James :

- You'd never go to see a film like "Spider Man", so why are you reading about it?

Ann :

- I'm fascinated by all the special effects and how they were achieved.

James :

-----

Ann :

- Yes, to some extent; but not entirely. The webs, for instance, are real materials like fishing line and computer generated animation.

- A) I understand New York plays quite an important role in the film.
- B) Certain techniques were in an effort to overcome these problems.
- C) I suppose it's all done by high technology, isn't it?
- D) I thought their main aim was to tell a great story.
- E) No. The effects team did most of the hard work.

35. Reg :

- I want to go to the Earth Sciences Museum in Cambridge. Would you care to come with me?

Neil :

-----

Reg :

- Rocks and fossils mostly. There are even some of the fossils Darwin collected on his Beagle voyage.

Neil :

- Good. Then let's go. It sounds interesting.

- A) I'd love to. Some Saturday, perhaps?
- B) I'm not going if all we're going to see is rocks and fossils!
- C) Yes, I've heard of it. They've got a remarkable collection of rocks and fossils there.
- D) I was there last year but it's worth a second visit.
- E) Well, what will we be able to see if we go there?

36. Mary:

What's special about digital radio?

Jude :

Well, to start with, the quality of the sound is excellent.

Mary :

-----

Jude:

Yes; it has a display that tells you what you are listening to.

- A) And that makes it a lot more expensive, doesn't it?
- B) Oh, that's good. And has it any other advantages?
- C) But isn't the quality of the sound pretty good on all radios now?
- D) Well, I would expect it to be so, considering the price!
- E) Right. What about its drawbacks?

37. Phil:

The Natural History Museum is really making a break with tradition with its Darwin Centre.

Jane:

-----

Phil:

Visitors can now watch the Museum's scientists as they carry out the research that's essential when identifying new species for instance.

Jane:

I think that's a splendid idea.

- A) Really? What's it doing?
- B) Good. Are you thinking of applying?
- C) That's a surprise! It won't last long!
- D) Who says so? I'm sure you're wrong!
- E) Well; it shouldn't be allowed to happen!

38. Craig :

**This is interesting. Eighteen new fish species have been caught off the coast of the southwestern tip of England in recent years.**

Sam:

**What's the explanation? Have all their natural enemies been killed off?**

Craig :

----

Sam :

**Well, that sounds plausible. After all, fish are cold-blooded creatures and need suitable surroundings.**

- A) They don't offer any explanation. Your guess is as good as mine.
- B) That's one possible explanation, but it's certainly not the most likely.
- C) No. Apparently it's the result of global warming. They are moving north to cooler waters.
- D) Possibly. But what I want to know is, where have they come from?
- E) No. I don't think so, anyway. Why do you ask?

39. Alec :

**If they can predict when one particular volcano will erupt, why can't they predict when any volcano will erupt?**

James:

**Because no two volcanoes are alike. Each needs to be studied so that its warning signal can be recognized.**

Alec :

----

James :

**Yes. But it will take time, of course. And there are only two volcano-watching satellites orbiting Earth and these aren't enough.**

- A) Why is that? Surely one volcano is very like another?
- B) That sounds reasonable enough. Is this being done?
- C) Well, what are they doing about it?
- D) Isn't volcanic activity related to earthquakes?
- E) But they've been carrying out research on volcanoes for years! How is it we know so little about them?

40. Chris:

**Have you read this article about the aerotrain they are working on?**

Tony:

**Do you mean the train that will ride on a cushion of air 2 to 4 inches above the ground?**

Chris :

----

Tony:

**I really don't know. But if they do succeed, it will be an important breakthrough.**

- A) Yes, that's the one. Do you think the project is realistic?
- B) Yes, of course. And it would have propeller engines.
- C) Right. It would cut back on energy consumption too.
- D) I suppose so. I don't think they are taking safety into consideration.
- E) Yes. It's a Japanese firm that's developing it, you know.

41. Patrick :

**- What sort of a career can you embark on as a metallurgist?**

Brian :

**- Oh, there are plenty of openings in industry. Some people go into aircraft manufacture for instance.**

Patrick :

----

Brian :

**- There certainly is. There is so much more to discover about the properties and potential of metals.**

- A) And what about research? Is there much scope for that?
- B) Metals are being used more and more as a building material, aren't they?
- C) The advantage of metals is that they can be decorative as well as functional.
- D) A career in research wouldn't suit me!
- E) There must be a lot of openings for metallurgists in civil engineering projects.

42. Mr Jones :

- **Well, what did you think of that candidate?**

Mr Curtis :

- ----

Mr Jones :

- **Yes; you're right about that. But he has no experience at all in environmental issues like water and air contamination. And that's important.**

Mr Curtis:

- **True. So let's call in the next applicant.**

- A) Thinks he knows everything; but knows nothing.
- B) Plenty of theoretical knowledge but that's not what we are looking for.
- C) He's very unsure of himself. I can't see him coordinating a project efficiently.
- D) Hopeless. Can't think why he applied.
- E) I liked him. He'd be able to fit into the team, which is one quality we want.

43. Peter:

- **Do you know anything about the Forest Stewardship Council?**

Reg :

- **Yes; it investigates the claims of logging companies that their operations are sustainable.**

Peter:

- ----

Reg :

- **It is indeed. Public response is so favourable that the demand for certified timber products exceeds the supply.**

- A) Are they also concerned with the maintenance of watershed stability?
- B) Is this what is meant by eco-forestry?
- C) Does this mean that they harvest trees no faster than new ones can grow to replace them?
- D) That sounds good. But is this having any effect upon the sale of timber products?
- E) The rainforests of the world are rapidly being destroyed.

44. David :

- **Wouldn't it be wonderful if there were no flies or insects in the world?**

Mark :

- ----

David:

- **Really? Why not?**

Mark :

- **Because, for one thing, insect pollination plays a role in producing about one-third of a human's diet.**

- A) I'm not sure that it would. Some of them are fun to watch.
- B) Well, it may sound like a fine idea; but actually we couldn't go on living without them.
- C) Those that bite and sting can go. But it would be wrong to get rid of them all.
- D) Bees make honey so you'd keep them, wouldn't you?
- E) What's the matter? Have you just been bitten by one?

45. Bob :

- **I haven't been following the investigation closely, but I thought they had established that excessive precipitation in the spring caused the bursting of the dams.**

Harry :

- ----

Bob:

- **And what had they failed to do?**

Harry:

- **Instead of replacing a badly damaged drain pipe, they'd done a poor repair job on it.**

- A) That must have contributed something. But further investigations revealed there had been gross negligence.
- B) Yes. The snow had melted very fast and this had been immediately followed by heavy rain.
- C) Mud and water rushed down the mountainside and reached a speed of 90 kilometers an hour.
- D) Within a space of three and a half minutes 285 people had been killed.
- E) People are slow to learn. Since then there have been 33 similar cases of dams bursting, and all for different reasons.

46. Sandy :

- Why are people so opposed to introducing new species to any given area?

Mavis :

- Well, they can, and generally do, cause a great deal of harm. Take, for example, the hedgehogs on the Hebridean Islands.

Sandy :

- ----

Mavis :

- Oh, couldn't they? They've been eating the eggs of indigenous ground-nesting birds.

- A) Surely they wouldn't hurt anything!
- B) Why, what have they been doing?
- C) They couldn't cause a problem!
- D) Well, they are harmless enough!
- E) Don't tell me they are proving a nuisance.

47. Peter :

- What is meant by the International Date Line?

Jane :

- It's an imaginary line that roughly follows the 180° line of longitude.

Peter :

- ----

Jane :

- It keeps dating uniform. The date is put forward a day when crossing the line going west, and back a day when going east.

- A) Well, what use does it serve?
- B) How long has it been in existence?
- C) Does everyone recognize it?
- D) Who chose that particular line of longitude?
- E) Have you ever crossed that line?

48. Gerald:

- Is it really possible to drill a hole in glass with a hardened steel drill?

Patrick:

- Apparently it is. But it's a tricky operation and you've got to keep plenty of turpentine and camphor on the area of contact between drill and glass.

Gerald :

- ----

Patrick:

- Apparently they act as a coolant and reduce friction.

- A) And is that difficult to do?
- B) How do they help?
- C) Will camphor dissolve in turpentine?
- D) Are diamonds still being used to drill glass?
- E) Aren't there any more reliable methods?

49. Pam :

- Do you know anything about Maxwell? James Clerk Maxwell? I've never heard of him!

Father:

- Few people have. And it's really most unfair. He was a very great physicist and much admired by Einstein.

Pam :

- ----

Father:

- He demonstrated that electricity and magnetism were just different aspects of the same phenomenon - electromagnetism.

- A) Really? What did he do?
- B) Then why isn't he better known?
- C) Do his theories have any practical application?
- D) Are his theories of light really basic to colour television?
- E) That's interesting! Did he ever meet Einstein?

50. Lee:

- Have you finished that book I lent you about the future of the world?

Reg:

- ----

Lee :

- I'm afraid his presentation of him as the planet's most successful predator and most dangerous enemy is utterly convincing.

Reg:

- I agree with you entirely.

- A) The writer seems rather too optimistic about the future.
- B) No, I've only just started it. But I liked his overview of evolution.
- C) No; frankly I found it rather boring. There's too much emphasis on preserving the environment.
- D) D) I have indeed. It was fascinating. What do you think of the writer's view of man?
- E) Yes, I have. And I'm not convinced that the environment is a vast and unexplored storehouse of biological treasures.

51. Michael:

- **How much freedom do you think the architect should have in the design of a building?**

Dan:

- **Well, I'm all for user participation in the planning and design process.**

Michael:

- ----

Dan:

- **Or in a factory or a laboratory.**

- A) It's the contractor that he really needs to work with!
- B) Yes, of course. But some buildings, office blocks for instance, are quite straightforward.
- C) So am I. The architect doesn't know what's needed, for instance, in a school.
- D) D) The quality of the materials used is equally important.
- E) Yes; but within reason. The architect can't please everyone.

52. George:

- **Brian is working very hard to discover a new species of mammal.**

Patrick:

- **Good luck to him! But he's not likely to do so.**

George:

- ----

Patrick:

- **Because nearly 80% of the mammal species known today were discovered before 1900.**

- A) Why do you say that?
- B) But he's good at his job and very determined.
- C) I suppose not. Even though there must be plenty of unknown species.
- D) Stop being pessimistic! It shouldn't be so difficult, should it?
- E) Given a bit of luck, he could.

53. Harry:

- **Have you understood how they've managed to make copper that is both strong and pliable?**

Lee:

- ----

Harry:

- **But doesn't that mean the copper is terribly brittle, and so breaks easily?**

Lee:

- **It would. But that's not the end of the process. About a quarter of the grains are then allowed to grow coarse thus making the copper pliable.**

- A) If they could, it would be excellent for various biomedical devices.
- B) No. But by all accounts it seems they have managed to do so.
- C) I only know they start by cooling the copper down with liquid nitrogen.
- D) In theory, yes. They're creating an ultra fine grain structure for strength.
- E) Small grains make for strength; large ones for pliability.

54. Reg:

- **Why are police so keen to collect bullets after a shooting incident?**

Matthew:

- ----

Reg:

- **Really? How do they do that?**

Matthew:

- **Every gun marks the bullets that pass through it in an individual manner, so they can be sure about which bullets come from which gun.**

- A) There is a spiral of raised lands and shallow grooves along the barrel.
- B) The diameter of a bullet tells one quite a lot.
- C) There are standard models and longer than standard.
- D) They used a comparison microscope to inspect, side by side, marks left on bullets and cartridges.
- E) They aid firearms identification.

55. Andy:

- **In the wild, monkeys spend something like 90% of the day in search of food.**

Clare:

- **Yes, I can believe that. But what are you trying to tell me?**

Andy:

- ----

Clare:

- **Yes, indeed. I'd never thought about that. It must make life very dull.**

- A) Think how bored they must be in a zoo where food appears at regular intervals.
- B) Do you think animals enjoy hunting for their food?
- C) Animals, like people, need to eat a varied diet.
- D) In some of the big zoos they actually hide the food and the animals go in search of it.
- E) The search for food means the animals get plenty of exercise and it keeps them happily occupied.

56. Roy:

- **If you haven't already read this account of Philip Morrison, make sure you do.**

Michael:

- ----

Roy:

- **That's what impressed me most. He made important contributions in quantum electrodynamics among other things, and then gave courses on physics for poets!**

- A) Yes, I will. I've seen him on TV on several occasions, he's both charming and amusing.
- C) Yes, I intend to. What was it that impressed you?
- D) I've already done so. The range of his interests and activities is amazing.
- E) Did you realize he was an assembler of the first atomic bomb?
- F) Of course. I was his student, you know, at Cornell University.

57. Gary:

- **Is this the website you like best when it comes to scientific news?**

Philip:

- **Yes, I suppose it is. It's updated weekly and well-linked to related websites.**

Gary:

- ----

Philip:

- **That's hard to say. So many scientific "facts" are being questioned these days.**

- A) Is it university-owned?
- B) Does it keep up with recent developments?
- C) What's the level? College stuff?
- D) From a scientific point of view, how reliable is it?
- E) Does it cover all the sciences?

58. Brian:

- **Have you read this book, *Water Follies*?**

Peter:

- **No I haven't; but I've heard a lot about it. It focuses on how much water is being wasted, doesn't it?**

Brian:

- ----

Peter:

- **Good! It's time someone took a firm stand against the waste.**

- A) That's right. And it's pretty critical of man for being so unconcerned about this waste.
- B) No. It actually concentrates on ground water.
- C) Yes. Most people seem to think ground water is boundless.
- D) And the gold-mining industry is attacked for its vast "dewatering" operations.
- E) And the consequences include dry rivers and land subsidence.

59. Sam:

- Do you think NASA's emergency escape plan for space-bound astronauts will work?

Robert:

- That's hard to say. I suppose really it will depend on the kind of emergency that presents itself.

Sam:

- ----

Robert:

- Actually, the colour is a survival feature too. It makes a search for the crew easier.

- A) It reminds one of science-fiction films, with everything neatly planned.
- B) It seems a bit like a game to me. The suits are a brilliant orange colour.
- C) The antigravity suit squeezes the legs to prevent blood from pooling in them.
- D) Apparently shuttle bailout is a last resort, to be used only if landing becomes impossible.
- E) Let's hope the *Challenger* catastrophe is not repeated.

60. Larry:

- They're holding a young designers' competition for designing a robot to put out a house fire.

Tony:

- I think you mean to blow out a candle!

Larry:

- ----

Tony:

- But you are right. The final aim is, of course, to put out house fires.

- A) Well, at this stage, that's all they're asking for.
- B) Do you think they ever will?
- C) That shouldn't be too difficult. The real problem is to locate the fire.
- D) If it could set off an alarm even, that would be useful, wouldn't it?
- E) Once a fire takes hold it becomes a major problem.

61. Michelle :

- It says here that the Russian Space Agency has developed a new alternative to NASA's space shuttle.

Don :

- ----

Michelle :

- Kliper, and it seems that it has gained a lot of interest from the European Space Agency and Japan.

Don :

- Well, let's hope they get enough money to get it off the ground.

- A) Well it's high time somebody did so.
- B) Oh? What's it called? Has it drawn any scientific attention?
- C) I wonder if it will be reliable.
- D) Is it as complex as the space shuttle?
- E) Really? Will it be able to be re-launched like the shuttle is?

62. Andrew :

- This book is about the early history of the computer and the Internet.

Mark :

- ----

Andrew :

- Actually it is. It places them firmly into the social background of the period.

- A) Weren't early computers more or less typewriters?
- B) Obviously, much research has gone into it.
- C) All I know about early computers is that they were incredibly large.
- D) That doesn't sound very interesting to me!
- E) It's hard to imagine life without either of them, isn't it?

63. Pam :

- I can't understand how anyone could ever dream of constructing a bridge to join so distant an island to the mainland.

Sarah :

- ----

Pam :

- Really? What?

Sarah :

- One day, roughly 150 children were drowned when the boat taking them to school was wrecked by storms.

- A) It must have cost those who designed it a lot of sleepless nights!
- B) The length is one problem; the weight a more serious one.
- C) It makes one wonder if anything is impossible!
- D) It's an amazing engineering achievement!
- E) They had a very compelling reason for doing so.

64. Alan :

- From music sets to cell phones they're making everything smaller and smaller. But how?

Joe :

- It's partly due to miniaturized electronics, but they're making the motors smaller, too.

Alan :

- ----

Joe :

- No; the physics principles remain the same. The key is design and manufacturing ingenuity.

- A) Are the new, smaller motors very different from earlier ones?
- B) Is it true that MP3 players usually have two motors?
- C) Do they still turn on small ball or cylinder bearings?
- D) Well, what's happening to the prices?
- E) Everything is becoming so small that we shall soon be unable to find anything!

65. Hector :

- This article talks about a double-blind test for new medication.

Val :

- ----

Hector :

- Well, it refers to a type of scientific testing in which neither the subjects nor the experimenters know the makeup of the test and control group during the actual course of the experiments.

Val :

- I guess that's the best way to prevent anyone affecting the outcome of the experiment.

- A) I've already read it.
- B) Did you enjoy reading it?
- C) What kind of medication?
- D) I think all medication should be thoroughly tested before doctors prescribe it.
- E) What does that mean?

66. Maeve :

- I learned today that there are actually two types of synapses in an animal's nervous system.

Charles :

- ----

Maeve :

- Which type transmits signals faster?

Charles :

- The second, because it sends signals directly, without using a neurotransmitter.

- A) Oh, really? I only know of one type.
- B) Most people have only heard of chemical synapses.
- C) Electrical synapses were first found in crayfish in 1957.
- D) Yes, chemical and electrical synapses.
- E) Synapses send information from the nervous system to the brain, and vice versa.

67. Tim :

- Did you know that NASA is going to send another manned mission to upgrade and repair the *Hubble* space telescope?

Max :

- Oh? I thought that, after the 2003 *Columbia* shuttle disaster, they were going to send manned spacecraft only to the International Space Station.

Tim :

- ----

Max :

- I hope NASA's taking the proper precautions this time.

- A) The space telescope is deteriorating because of dust and radiation.
- B) Well, NASA changed its mind because a robotic mission has turned out to be impossible.
- C) *Hubble* was first launched into space in 1990.  
Did you know that?
- D) I learned from this article that Edwin Hubble was the first astronomer to describe the expansion of the universe.
- E) The *Hubble* telescope has sent back thousands of valuable images. I think it's worth the mission, don't you?

68. Mary :

- I watched a news report this evening about a man who had started many forest fires. Investigators were able to find him by examining the areas where the fires had started.

Paul :

- ----

Mary :

- No; they looked very carefully, sometimes with a magnifying glass or metal detector, to find the match or other agent that had been used to set the fire, and then they traced it back to the person. It almost always works.

- A) Have you ever been near a forest fire when it was burning?
- B) A fire last August nearly burnt up my aunt's home in California. I hope they catch whoever set that fire, too.
- C) How could they possibly have done that? Weren't all the clues burnt up in the fire?
- D) How could they find the place where the fire had started?
- E) I think people should be very careful with matches or cigarettes when they are in the forest.

69. Carol :

- Do you know what makes birds' vision better than ours?

Mike :

- ----

Carol :

- Why do they have that ability when humans don't?

Mike :

- I think it's because early mammals were active at night, when there's no ultraviolet light from the sun, and so they lost the ability, but birds didn't.

- A) It's partly because they can see ultraviolet light wavelengths, while humans can't.
- B) They need to see better in order to determine the health of a potential mate.
- C) It's impossible for humans to know what birds' perception of colours is actually like.
- D) I think their vision is always strengthened by ultraviolet light.
- E) Insects can also see ultraviolet wavelengths.

70. Brenda :

- Have you heard of the new Internet technology that allows people to conduct a search for information by entering a photo taken with a mobile telephone into the search engine?

Ryan :

- ----

Brenda :

- Well, for example, sending a photo of a nearby landmark building might give you a street map of the area.

Ryan :

- That would be useful if you were lost in a foreign city.

- A) I can barely use my mobile to call someone, let alone to send a picture over the Internet!
- B) Who told you that?
- C) What good would that be?
- D) Oh, another new technology.
- E) Don't believe everything you read or see on the television.

71. Sarah :

- Have you ever thought about how paleontologists name the new fossils they find? They don't only give the fossils a boring, descriptive name in Latin.

Laura :

- ----

Sarah :

- Well, in this article it says that one paleontologist named a newly discovered type of dinosaur fossil *gojirasaurus* after the original Japanese name for Godzilla!

Laura :

- That's funny! I wonder if they'll name any fossils after King Kong.

- A) I have a cousin who's studying paleontology; why don't we ask him?
- B) Certainly. There are rules for how new species and fossils must be named.
- C) Well, they surely have a catalogue of names they can use for every fossil they discover.
- D) Oh, really? What kinds of names do they give them, then?
- E) Paleontologists have a sense of humour, too!

72. Lisa :

- What are you reading?

Andy :

- A book about caterpillars in the Costa Rican tropical forests. Did you know that there's one type of caterpillar that looks like a snake's head?

Lisa :

- ----

Andy :

- I should imagine, only to scare away predators.

- A) Looking at caterpillars always makes me feel like
- B) I've got one crawling up my arm!
- C) How strange. I wonder why?
- D) I don't know why this type of caterpillar lives in a tropical forest.
- E) How interesting. Does the book mention other types?
- F) Why did the writer choose to focus on only the forests in Costa Rica?

73. Kathy :

- I went to a lecture yesterday given by a microbiologist. He focused on bacteria caught in Antarctic ice millions of years ago, and stressed their importance in understanding how life on Earth works over long periods of time.

Bruce :

- ----

Kathy :

- He said that life on Earth consists mostly of microbes, and they can adapt to every possible environment.

Bruce :

- That sounds interesting. Did he suggest any reading material on the subject?

- A) What is the lecturer's special area of study within the field of microbiology?
- B) Did you ask him any questions after the lecture?
- C) I find microbiology incredibly interesting; don't you?
- D) Who else attended the lecture besides you?
- E) How can anything so tiny have an influence on the planet as a whole? Amazing. Anything else?

74. Terry :

- Did you know that scientists have found perfectly preserved comet dust in the ice in Antarctica?

Lynne :

- ----

Terry :

- Yes, it is. The samples found previously in Antarctica and in Greenland had been compacted and changed by the ice around them, but these new samples haven't.

Lynne :

- Then their larger size and good condition must make them easier to analyse.

- A) That's nothing new! Don't you think?
- B) Are the dust samples taken from a comet's tail by spacecraft similar to this?
- C) Where in Antarctica was the dust discovered?
- D) It must have been difficult for the scientists to locate the dust.
- E) That was Jean Duprat's study, wasn't it?

75. Keith :

- **It looks like more and more countries in the EU are turning to wind power for their energy.**

Cherie :

- ----

Keith :

- **Actually it's not, because sometimes the wind turbines are built without proper planning, and this affects the surrounding environment negatively.**

Cherie :

- **Oh, I wasn't aware of that.**

- A) I think a combination of wind and solar power would be best.
- B) I think that's very good. Yes?
- C) What's your opinion of wind power?
- D) I thought wind turbines couldn't generate enough power to make a difference.
- E) Do you think wind power will help reduce carbon emissions?

76. Angela :

- **How was your visit to Crater Lake National Park last summer?**

Sharon :

- **It was wonderful. The lake is very beautiful, with a clear, deep-blue colour. And I learned something new about it: it's a closed basin lake.**

Angela :

- ----

Sharon :

- **Well, there are no permanent streams that enter or exit the lake.**

- A) I plan to visit the lake this summer.
- B) How did you learn that?
- C) You're very informed, aren't you?
- D) What does that mean?
- E) How many visitors are allowed into the park each year?

77. Ken :

- **Do you know? I'm really getting very interested in the movement of glaciers.**

Sherrie :

- **What have you learned now?**

Ken :

- ----

Sherrie :

- **That's right; the ice moves out to the sides because of the greater weight and pressure at the centre.**

- A) That when glaciers move, they don't only move straight downhill.
- B) Well, some glaciers flow into the sea, but others end on land.
- C) Glaciers store about 75% of the world's freshwater.
- D) I found out that where an ice sheet flows into the ocean and floats, it forms an ice shelf.
- E) Ice sheets flowing over land usually form piles of rocks and dirt at their ending points.

78. Michelle :

- **It says in this article that Jupiter's moon Europa has relatively few craters on it – only one or two significant ones.**

Kathy :

- **I wonder why it has so few, when some of Jupiter's other moons and our own moon have so many.**

Michelle :

- ----

Kathy :

- **Oh, yes, I've read about that. It has to do with tides changing the surface features, doesn't it?**

- A) The article says that it would be surprising if the tides weren't still active.
- B) Scientists think that the surface has been completely re-made in the cosmically recent past.
- C) The continuously changing surface would create organisms, if there are any, that could adapt easily to the changes.
- D) Since there are many tiny bodies in the outer solar system, they would normally have hit Europa, forming craters.
- E) The weak ice on Europa's surface cannot support high mountains.

79. Ann :

- **Did you know that the use of graph paper for plotting functions and data was first made common by Professor John Perry, when he was still an assistant of the famous physicist Lord Kelvin?**

Jane :

- **No, I didn't. How did he make it available to the public?**

Ann :

- ----

Jane :

- **Well, that's really something.**

- A) He was a tireless educator in engineering and mathematics.
- B) He challenged Lord Kelvin's hypothesis about the temperature of the Earth.
- C) Perry came up with the idea that heat moved more easily deep inside the Earth than it does close to the surface.
- D) Perry insisted that mathematics was basic to all the sciences.
- E) Simply, it was because of him that the price of graph paper became affordable for everybody.

80. Peter :

- **It seems that higher sea-surface temperatures could give rise to ever larger and more frequent hurricanes.**

Frank :

- ----

Peter :

- **True. What do you think is going to happen?**

Frank :

- **Let's just wait and see!**

- A) At present, it is all pure speculation. Let's change the subject.
- B) Why have you become so interested in global warming?
- C) But which parts of the globe would be affected?
- D) Yes; I'm familiar with that theory. But there are opposing theories too.
- E) Hurricanes will certainly increase in number and severity.

