

## Part 2 MFOM examination

### Sample MEQ examination questions

The sample questions below are examples of the type of question that may appear in the Part 2 MFOM MEQ examination.

*Please note that the questions below are past questions (first used prior to 2006) from the examination for Associateship of the Faculty of Occupational Medicine (AFOM); the number of marks available for the Part 2 MFOM MEQ questions is usually 10 and not 20 as in these AFOM questions.*

1. You are employed by an occupational health consultancy and you are asked to advise a local firm about the risks to health associated with an electroplating process.
  - a) List the health hazards associated with a hexavalent chromium electroplating process. **[10 marks]**
  - b) Outline the health surveillance requirements for this process under the Control of Substances Hazardous to Health Regulations 2002 (COSHH) **[10 marks]**
  
2. You have been asked to design a plan to manage the health aspects of the **construction phase** of a pipeline project. In West Africa a 500-kilometre large bore pipeline will be constructed from imported medium carbon steel pipeline segments. The route will traverse remote countryside. Construction is expected to last 18 months. The construction and support workforce will comprise about 500 ex-patriate contractors from Eastern Europe and approximately 1000 temporary employees who will be recruited from various towns and villages along the pipeline route.

Write notes on the broad range of health issues that will need to be considered in your plan. **[20 marks]**

3. Outline the properties, uses, metabolism and health effects of the following substances:
  - a) Cadmium **[5 marks]**
  - b) Vinyl Chloride **[5 marks]**
  - c) Styrene **[5 marks]**
  - d) Hydrogen cyanide **[5 marks]**

4. a) Briefly distinguish between an ethical and a legal duty as it applies to occupational physicians. **[4 marks]**
- b) Outline the principal components of the company policy that takes into account current ethical and legal considerations relating to:
- (i) the security of medical records and access to medical information **[8 marks]**
- ii) disclosure of clinical information and records **[8 marks]**
5. You are an occupational physician for a company operating offshore oil and gas production platforms in the UK sector of the North Sea. One of the platforms is hosting national trainee operators from your company's developing oil and gas production operations in West Africa. One of the West African trainees has been working shifts offshore for 3 months and develops fever, weight loss and cough. He is transferred onshore for evaluation and is diagnosed with open pulmonary tuberculosis. You have been advised of this by the onshore medical personnel. Management and employees from the platform have received informal feedback from a reliable source that the trainee has a "communicable disease" requiring isolation in hospital.

Describe how you would deal with this situation especially in terms of communication with relevant groups including company management (and their support staff) and employees. **[20 marks]**

6. Discuss the following:
- a) The 'Sk' notation and its criteria for assigning substances **[4 marks]**
- b) Techniques for measuring and estimating dermal exposure including their relative merits **[16 marks]**
7. To investigate the relationship between occupational exposure to electromagnetic fields and risk of suicide, all 500 men from a single city who had died in 1998 aged 20-59 years, and for whom the certified cause of death was suicide, were compared to 2000 male controls who had died from other causes. The latter were chosen at random from all male deaths at ages 20-59 years in 1998 in the same city. The most recent occupation of each subject was obtained from the registrar of births and deaths. After adjustment for age and social class, the odds ratio for electrical utility workers was 2.20.
- a) What kind of study is this? **[2 marks]**
- b) Comment on the choice of control group **[6 marks]**
- c) Comment on the method used to assess exposure. Will it lead to bias in the comparison of cases and controls? **[6 marks]**
- d) How should be odds ratio be interpreted? What other information would help your interpretation? **[5 marks]**

**8.** A 39 year old full time dispensing assistant from a retail pharmacy is on sick leave having been diagnosed as suffering from a frontal lobe astrocytoma. Diagnosis has been made by biopsy and she has completed treatment, including cranial radiotherapy. She has been off work for three months. The personnel manager refers her to you formally for "assessment and advice".

- a) What clinical **[6 marks]** and occupational **[6 marks]** features would be important in your assessment?
- b) What aspects, including resettlement and/or rehabilitation, need to be considered in your advice to management? **[8 marks]**

**9.** Write short notes on the following:

- a) the health effects of carbon tetrachloride **[5 marks]**
- b) Caisson disease **[5 marks]**
- c) Q fever **[5 marks]**
- d) points to be considered in appraising an epidemiological study **[5 marks]**

**10.** Write short notes on the adverse health effects of exposure to:

- a) Inorganic lead **[5 marks]**
- b) Organic lead **[5 marks]**
- c) Cold **[5 marks]**
- d) Heat **[5 marks]**

**11.**

- a) List the conditions associated with exposure to asbestos **[7 Marks]**
- b) Maintenance men have been replacing heating pipes in the corner of an open-plan office for three days. The office staff have continued to work there during this period. On the fourth day the dust which had been seen as only a nuisance factor is shown to contain asbestos fibres. You are asked by management to talk to the office workers at a group meeting.

Outline the content of your presentation to this group of workers including what you would say about the risk. **[13 marks]**

**12.**

- a) What are the principal hazards faced by sewage workers? **[10 marks]**
- b) What preventive measures would you advise should be provided for these workers? **[10 marks]**