

**Exercise 3**

- |                           |                           |
|---------------------------|---------------------------|
| a tests                   | i advanced braking system |
| b desert                  | j airbags                 |
| c family                  | k alarm                   |
| d air conditioning        | l immobilizer             |
| e sunroof                 | m mini                    |
| f electric                | n people carrier          |
| g central locking         | o van                     |
| h Power assisted steering | p alloy wheels            |

**UNIT 12****Exercise 1**

- |               |  |
|---------------|--|
| benzene       | contains 6 carbon atoms in a ring  |
| aromatics     | chemicals that contain the benzene ring  |
| ethylene      | the simplest olefin; it is a sweet-smelling gas that is used to make plastics          |
| olefins       | a group of compounds made by cracking alkanes and used to make plastics and antifreeze |
| fluorides     | inorganic compounds of fluorine that are added to toothpastes                          |
| carbonates    | compounds that react with acids to give off carbon dioxide                             |
| chlorides     | compounds containing chlorine and another element                                      |
| methanol      | an alcohol with the formula $\text{CH}_3\text{OH}$                                     |
| nitrates      | contain $\text{NO}_2^-$ and a metal cation   |
| oxides        | compound of oxygen and another element   |
| polypropylene | made from propene and often used for kitchen tools, for example                        |

**Exercise 2**

- |               |            |
|---------------|------------|
| 1 insecticide | 5 matt     |
| 2 synthetic   | 6 cosmetic |
| 3 fertilizers | 7 flavours |
| 4 fast drying | 8 stiff    |

**Exercise 3**

- |                |                 |
|----------------|-----------------|
| a soaps        | j processes     |
| b basic        | k dyes          |
| c acids        | l textile       |
| d alkalis      | m explosives    |
| e fertilizers  | n plastics      |
| f paints       | o petrochemical |
| g glass        | p tough         |
| h oil          | q transparent   |
| i Intermediate | r resistant     |

**UNIT 13****Exercise 1**

- |                     |               |
|---------------------|---------------|
| 1 detection         | 5 labelling   |
| 2 hospital, observe | 6 therapeutic |
| 3 seized            | 7 diagnosis   |
| 4 inspections       | 8 licence     |

**Exercise 2**

- |                 |                 |
|-----------------|-----------------|
| 1 viscosity     | 6 inorganic     |
| 2 boiling point | 7 odour         |
| 3 aerobic       | 8 preservatives |
| 4 distil        | 9 extract       |
| 5 ferment       |                 |

**Exercise 3**

- |                |              |
|----------------|--------------|
| a treatment    | h regulatory |
| b laboratories | i approved   |
| c stringent    | j harmful    |
| d healthy      | k safety     |
| e patients     | l placebo    |
| f suffering    | m evaluate   |
| g disease      |              |

**UNIT 14****Exercise 1**

- |                          |                                |
|--------------------------|--------------------------------|
| 1 an acute – a chronic   | 5 walking – breathing          |
| 2 unlikely – likely      | 6 digestive – nervous          |
| 3 infectious – emotional | 7 salt – sugar                 |
| 4 asthma – malaria       | 8 physiotherapist – pharmacist |

**Exercise 2**

- |                        |                          |
|------------------------|--------------------------|
| 1 midwife/obstetrician | 6 occupational therapist |
| 2 radiologist          | 7 dentist                |
| 3 anaesthetist         | 8 physiotherapist        |
| 4 nutritionist         | 9 paediatrician          |
| 5 paramedic            | 10 radiographer          |

**Exercise 3**

- |                |             |
|----------------|-------------|
| a heart attack | e cancer    |
| b tablet       | f doses     |
| c stroke       | g chronic   |
| d side effect  | h arthritis |

**UNIT 15****Exercise 1**

- |              |                 |
|--------------|-----------------|
| 1 felt       | 5 ventilating   |
| 2 partitions | 6 –deadening    |
| 3 vapour     | 7 deep          |
| 4 structure  | 8 Caisson piers |

**Exercise 2**

- |                |                    |
|----------------|--------------------|
| 1 beam         | 5 roof truss       |
| 2 column       | 6 lattice girder   |
| 3 steel girder | 7 pile foundations |
| 4 curtain wall |                    |

**Exercise 3**

- |                     |                |
|---------------------|----------------|
| a load-bearing      | g masons       |
| b surveyor          | h roofers      |
| c architect         | i plasterers   |
| d quantity surveyor | j electricians |
| e foundations       | k plumbers     |
| f carpenters        | l painters     |

**UNIT 16****Exercise 1**

- |               |                   |
|---------------|-------------------|
| 1 panelboard  | 5 superconductors |
| 2 watertight  | 6 explosionproof  |
| 3 rainproof   | 7 overload        |
| 4 switchboard | 8 dustproof       |

**Exercise 2**

- |                |                              |
|----------------|------------------------------|
| 1 laser        | 6 robotics                   |
| 2 device       | 7 branch circuit             |
| 3 signal       | 8 short circuit              |
| 4 radar        | 9 (circuit) breaker          |
| 5 fibre optics | 10 junction (electrical) box |

**Exercise 3**

- |                      |                |
|----------------------|----------------|
| a turbines           | g transformers |
| b generators         | h cable        |
| c transformers       | i fuse         |
| d cables             | j circuits     |
| e power              | k lighting     |
| f transmission lines | l appliances   |

**UNIT 17****Exercise 1**

- |                 |                   |
|-----------------|-------------------|
| 1 Transistors   | 5 storage         |
| 2 semiconductor | 6 reliability     |
| 3 electronic    | 7 microprocessors |
| 4 receives      | 8 communication   |

**Exercise 2**

- |                        |                            |
|------------------------|----------------------------|
| 1 amplified, amplifier | 6 storage                  |
| 2 entertainment        | 7 transmission             |
| 3 generation           | 8 stored                   |
| 4 integrated           | 9 Transmission, modulation |
| 5 reliable             | 10 emitted                 |

**Exercise 3**

- |               |                       |
|---------------|-----------------------|
| a Transistors | f integrated circuits |
| b Resistors   | g semiconductor       |
| c electrons   | h silicon             |
| d Diodes      | i germanium           |
| e Capacitors  | j devices             |

**UNIT 18****Exercise 1**

- |              |  |
|--------------|--|
| Devices      | robot, radio, television, altimeter, computer  |
| Functions    | develop solutions, transmit data, diagnose problems, evaluate results, provide support           |
| Applications | transportation systems, automotive industry, pharmaceutical industry, chemical industry, defence |

**Exercise 2**

- |                            |                          |
|----------------------------|--------------------------|
| 1 space technology         | 4 computer-guided robots |
| 2 satellite communications | 5 navigation aids        |
| 3 personal computer        | 6 consumer goods         |

**Exercise 3**

- |               |                   |
|---------------|-------------------|
| a medical     | d instrumentation |
| b technicians | e examined        |
| c repair      | f architecture    |

**UNIT 19****Exercise 1**

- |             |           |        |             |        |
|-------------|-----------|--------|-------------|--------|
| 1 sun       | 2 biofuel | 3 wind | 4 plutonium | 5 wave |
| 6 petroleum |           |        |             |        |

**Exercise 2**

- |                |  |                   |  |
|----------------|--|-------------------|--|
| <b>Across</b>  |  | <b>Down</b>       |  |
| 1 commissioned |  | 2 open coal fires |  |
| 3 electrical   |  | 4 magnetic        |  |
| 7 geothermal   |  | 5 greenhouse      |  |
| 9 gasworks     |  | 6 transport       |  |
| 10 sun         |  | 8 hydraulic       |  |
| 12 uranium     |  | 11 petroleum      |  |
| 13 solar cell  |  | 15 solar          |  |
| 14 kinetic     |  |                   |  |
| 15 scheme      |  |                   |  |
| 16 biofuel     |  |                   |  |

**Exercise 3**

- |                  |              |
|------------------|--------------|
| a fossil fuels   | h water      |
| b coal           | i turbines   |
| c power stations | j generators |
| d produce        | k Wave       |
| e gas            | l tidal      |
| f non-renewable  | m barrage    |
| g renewable      |              |

**UNIT 20****Exercise 1**

- |              |                |
|--------------|----------------|
| 1 suspension | 4 masonry arch |
| 2 cantilever | 5 bascule      |
| 3 clapper    | 6 swing        |

**Exercise 2**

- |            |                |
|------------|----------------|
| 1 dam      | 7 well         |
| 2 dike     | 8 tunnels      |
| 3 viaduct  | 9 desalination |
| 4 aqueduct | 10 bulldozer   |
| 5 lock     | 11 dredger     |
| 6 sluice   | 12 road roller |

**Exercise 3**

- |            |                 |
|------------|-----------------|
| a camber   | g macadam       |
| b crown    | h potholes      |
| c sewer    | i main          |
| d manholes | j soft shoulder |
| e pavement | k culvert       |
| f curb     |                 |

**UNIT 21****Exercise 1**

- |                      |   |
|----------------------|---|
| feasibility study    | investigation to assess both financial and engineering aspects of a project                       |
| site investigation   | study of the proposed location to assess geology of the area                                      |
| maintenance          | activities carried out after the project to ensure problems are solved                            |
| soil mechanics       | extensive investigation to evaluate the load-bearing qualities and stability of the ground        |
| specifications       | dimensions and measurements   |
| technical drawings   | detailed plan of proposed structures  |
| commission a project | to order a plan to be carried out   |
| costing system       | procedure to monitor the costs of a project so that management can get information on development |
| tender               | offer of a bid for an engineering contract  |
| turnkey project      | building or installation which is built, supplied, or installed complete and ready to operate     |

**Exercise 2**

- | Phase               | Tasks   |
|---------------------|---|
| Before construction | feasibility study<br>preliminary site investigation<br>extensive site investigation<br>detailed design                              |
| During construction | employment of consulting engineer<br>consulting engineer contact with contractors<br>consulting engineer communications with client |
| After construction  | maintenance   |

**Exercise 3**

- |                |              |
|----------------|--------------|
| a engineer     | e scheduling |
| b industrial   | f draft      |
| c construction | g site       |
| d claims       | h client     |

**UNIT 22****Exercise 1**

- |          |   |
|----------|---|
| deposit  | a natural occurrence of a useful mineral in sufficient quantities for exploitation                            |
| excavate | remove soil and/or rock materials from one location and transport them to another                             |
| explore  | search for coal, minerals, or ore   |
| extract  | remove coal or ore from a mine  |
| mineral  | a natural resource extracted from the earth for human use, e.g. ores, salts, coal, or petroleum               |
| mining   | the science, technique, and business of mineral discovery and exploitation                                    |
| ore      | the naturally occurring material from which a mineral or minerals of economic value can be extracted          |
| prospect | examine a territory under for its mineral wealth  |
| quarry   | an open or surface mineral working, usually for the extraction of building stone, such as slate and limestone |