

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**

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|---------------|--|
| 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 CH_3OH |
| nitrates | contain 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

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

Exercise 3

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|----------------|-----------------|
| 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

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

Exercise 3

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|----------------|--------------|
| 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**

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|--------------------------|--------------------------------|
| 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

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

Exercise 3

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

UNIT 15**Exercise 1**

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

Exercise 2

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

Exercise 3

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|---------------------|----------------|
| 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**

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

Exercise 2

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|----------------|------------------------------|
| 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

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|----------------------|----------------|
| 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**

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

Exercise 2

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

Exercise 3

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|---------------|-----------------------|
| 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**

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|--------------|--|
| 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

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

Exercise 3

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|---------------|-------------------|
| 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

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|----------------|--|-------------------|--|
| Across | | Down | |
| 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

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|------------------|--------------|
| 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**

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

Exercise 2

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|------------|----------------|
| 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

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|------------|-----------------|
| 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**

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|----------------------|---|
| 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
preliminary site investigation
extensive site investigation
detailed design |
| During construction | employment of consulting engineer
consulting engineer contact with contractors
consulting engineer communications with client |
| After construction | maintenance |

Exercise 3

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

UNIT 22**Exercise 1**

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|----------|---|
| 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 |