Cambridge English for Nursing MEDICAL TECHNOLOGY

Answer key _____

Unit 1 Blood pressure

a

1 F – the glass could break and mercury is toxic

2 T

3 T

4 F – it is entirely manual

5 F – it only measures blood pressure

6 T

7 T

8 F – it is electronic

9 F – it doesn't need any extra equipment

10 T

	Similarities	Differences
digital monitor	measure BP have a cuff non invasive	automatically inflates cuff relies on battery or electricity supply can give other readings easy to use expensive piece of equipment
sphygmomanometer		uses mercury – toxic if glass column breaks need a stethoscope as well cuff needs to be inflated manually relies on the accurate hearing of the practitioner not expensive

Unit 2 The Incentive Spirometer

a

- 1 A Triflow
- 2 To restore lung function after an operation
- 3 It improves respiratory muscles and lung capacity
- 4 Every hour

b

- 1 take a normal breath
- 2 blow into the mouthpiece
- 3 push up the three balls
- 4 keep them in the air for five seconds
- 5 repeat every hour whilst you're awake

c

Suggested answer

Jane asks questions such as *Do you remember ...? Can you see the ...?* She also demonstrates the equipment. To put Kylie at ease Jane sits next to her at the same level. She uses inclusive language *We want to ...* and includes Kylie in the process *Can you count to five seconds for me?* She uses an encouraging tone of voice.

Unit 3 Wound management

a

1 larval therapy, hyperbaric oxygen therapy, VAC dressings

b

- 1 T
- $2 ext{ } F$ it has to be moist so the maggets do not dry out
- 3 F it is the same therapy
- 4 F access to the treatment is difficult and the cost is high
- 5 F it increases antimicrobial properties
- 6 T
- 7 F they use the same procedure in their hospitals

Unit 4 Diabetes care

- **b** an insulin inhaler
- **c** 1 e 2 c 3 b 4 a 5 d

Unit 5: IDCs

a

- 1 Low-friction catheters
- 2 It is hydrophilic
- 3 They need to be lubricated each time

b

Advantages	Disadvantages
Hydrophilic surface Self-lubricated Less friction to the urethra Less risk of urinary tract infection	Not re-useable More expensive than non- lubricated catheters

Unit 6 Administering medication

a

It is a digital drug ordering console.

b

- 1 Doctors / medics
- 2 Use of non-standard abbreviations and illegible handwriting
- 3 An automatic dosing alarm alerts the doctor
- 4 The set up costs

c

- 1 T
- 2 F they are sent electronically
- 3 F it is quicker
- 4 7
- 5 F it can identify drug reactions, allergies or treatment conflicts
- 6 T

е

Suggested answers

- 1 Point of care is treatment which is ordered at the patient's bedside.
- 2 Advantages: real-time treatment which can be acted on immediately; all care, for example prescriptions and updates, can be integrated into patient notes; medication errors are minimised because there is no risk of misinterpreting illegible handwriting.

5 Disadvantages: staff inexperienced with the technology may cause slower entry of orders at first and use more staff time; CPOE is slower than person-to-person communication in an emergency situation; communication between healthcare workers may deteriorate if each group works alone at their workstations; there may be a false sense of security created by the technology, and so regular checking is not done; there is a potential for technology failure, which could lead to an inability to access patient records; integrity of data entry could be questioned.

Unit 7 IV therapy

b

- 1 Needle-stick injuries and how to decrease their incidence.
- 2 During the period of time after the use of a sharp object but before its disposal.
- 3 The use of sharps disposal containers to dispose of sharp objects and the use of instruments rather than hands to hold sharps.
- 4 The needleless system replaces needles with blunt plastic cannulas. The blunt cannulas are inserted into a split system access port, which is very easy to use.
- 5 The transmission of blood-borne viruses
- c 2 g 3 a 4 e 5 c 6 b 7 h 8 d

Unit 8 Pre-operative patient care

a

It shows sequential compression sleeves used for the treatment of DVT

b

- 1 The Vascular Team
- 2 Sequential compression sleeves
- 3 Because he can't take anti-coagulant medication

С

- 2 non-disposable
- 3 compartment
- 4 gradient
- 5 calves
- 6 high-risk
- 7 converts

Unit 9 Advances in pain management

b

The patient gets immersed in the virtual experience and is distracted from their pain.

Unit 10 Robotics in health care

С

- 1 Because he had a stroke and lost the use of his left arm
- 2 He is improving
- 3 To guide his arm through the movements of a video game
- 4 His muscle tone has improved
- 5 By using the joystick correctly without the robot's help
- 6 No, it's experimental