



**National
Examining
Board for
Dental Nurses**

**NATIONAL DIPLOMA IN DENTAL NURSING
NATIONAL DIPLOMA EXAMINATION
SAMPLE QUESTIONS**

MULTIPLE CHOICE QUESTIONS (MCQ) - INSTRUCTIONS FOR CANDIDATES

Please read the marking instructions on the answer sheet provided. You will have two answer sheets, one for MCQs and one for EMQs.

Marks are not deducted for any incorrect answers.

Each question is followed by 5 options, one of which is most appropriate. Mark your answer, as instructed, in the relevant boxes on the answer sheet.

You will gain 1 mark for each correct answer.

All answers must be completed on the answer sheets provided and NOT in this question paper. Any answers written in this question paper will NOT be marked.

(This page may be used for notes)

- Q1.** The ethical requirements upon all members of the dental team are outlined in “Standards for the Dental Team” which standards includes putting patients’ interests first and protecting patients’ information. Which body produces “Standards for the Dental Team”?
- A. British Dental Association
 - B. Department of Health
 - C. General Dental Council
 - D. Health and Safety Executive
 - E. National Examining Board for Dental Nurses
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- Q2.** In a medical emergency situation, we are taught to assess the collapsed patient using the ABCDE approach where ‘B’ stands for breathing. What kind of breathing would you expect in a patient who has suffered a cardiac arrest?
- A. Laboured breathing (dyspnoea)
 - B. No breathing (apnoea)
 - C. Normal breathing (eupnoea)
 - D. Rapid breathing (tachypnoea)
 - E. Slow breathing (bradypnoea)
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- Q3.** A patient has had a full mouth BPE screening and the scoring is recorded as:

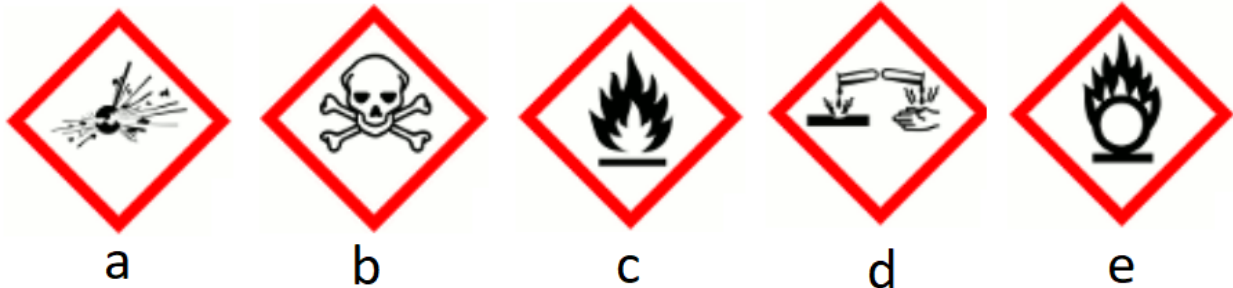
2 | 1 | 3
- | 0 | 3*

What does the score mean in the lower right sextant?

- A. Bleeding on probing
 - B. Furcation involvement
 - C. Pocket over 5.5mm in depth
 - D. Presence of calculus
 - E. There are no teeth in this sextant
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- Q4.** A 7 year old child had bitewing radiographs taken which showed early caries in the distal surfaces of the upper first primary (deciduous) molar teeth. The dentist refers the patient to the dental therapist for the ‘Hall Technique’ and you are preparing the necessary items. What is the ‘Hall Technique’?
- A. Caries is removed with an excavator and the teeth are restored with glass ionomer cement
 - B. Conventional amalgam restorations are placed under local anaesthetic
 - C. Preformed metal crowns are placed over the teeth with glass ionomer cement to “seal in” the caries
 - D. The teeth are extracted under local anaesthetic
 - E. Vital pulpotomies are performed and the teeth are restored with composite resin
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Q5. Acid etching gel is associated with a potential risk to the health and safety of staff and patients. Which one of the following CLP pictograms illustrates the hazard posed by acid etch?

- A. Image a
- B. Image b
- C. Image c
- D. Image d
- E. Image e



Q6. A 14 year old patient is referred to the orthodontist because they have a severe class III malocclusion. What is the most likely feature this patient will present with?

- A. Anterior open bite
- B. Retroclined upper incisors
- C. Reverse overjet
- D. Small mandible
- E. Traumatic overbite

Q7. Proper decontamination and sterilization of dental instruments and equipment is important to prevent the direct or indirect spread of disease or infection. Sterilization can be defined as the process where all the living microorganisms, including bacterial spores, are killed. Which one of the following diseases is caused by reactivated bacterial spores?

- A. AIDS
 - B. Hepatitis B
 - C. Measles
 - D. Oral thrush
 - E. Tetanus (lock jaw)
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Q8. Validating the practice's decontamination processes includes performing an observed and documented daily test cycle of the autoclave. This is to check the parameters are met which ensure effective sterilization. What are the minimum required parameters?

- A. Temperature 132 °C is reached and held for 2 minutes at 2.2 bar pressure
 - B. Temperature 132 °C is reached and held for 3 minutes at 2.2 bar pressure
 - C. Temperature 134 °C is reached and held for 2 minutes at 2.2 bar pressure
 - D. Temperature 134 °C is reached and held for 3 minutes at 2.2 bar pressure
 - E. Temperature 136 °C is reached and held for 2 minutes at 2.2 bar pressure
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Q9. In several parts of the UK young children are brushing their teeth in school with fluoride toothpaste every day. A 12% reduction in caries rate has been seen as a result. What is the recommended maximum level of fluoride in the toothpaste provided to a 5 year old child?

- A. 650 ppm
 - B. 1000 ppm
 - C. 1500 ppm
 - D. 2800 ppm
 - E. 5000 ppm
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Q10. The parent of a toddler is concerned because the child's first primary (deciduous) molar teeth (D's) have erupted before their primary (deciduous) canines (C's). What is the expected sequence of eruption of the primary (deciduous) teeth?

- A. A B C D E
 - B. A B D C E
 - C. A B D E C
 - D. A B E C D
 - E. A B E D C
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Q11. The patient attends for a stage of complete denture construction. At the end of the appointment you are asked to disinfect alginate impressions that have been taken using special trays. What stage of denture construction was the patient attending?

- A. Fit
 - B. Occlusal registration (bite)
 - C. Primary impressions
 - D. Secondary impressions
 - E. Try-in
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- Q12.** You retrieve a bitewing radiograph from the automatic film processor but find that the film is completely dark (black) with no image. During audit the film is graded '3' because it has no diagnostic value. What has caused the error?
- A. The developer solution was too weak
 - B. The developer temperature was too cold
 - C. The film was bent during processing
 - D. The film was exposed to light before processing
 - E. The film was not exposed to x-rays
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- Q13.** Occasionally a patient receiving an injection of local anaesthetic (LA) in the mouth will complain of transient palpitations (irregular heart beat). This is more likely if the clinician does not aspirate and injects LA containing adrenaline into a blood vessel. Which blood vessel in the option list carries blood away from the head and neck area towards the heart?
- A. Brachial artery
 - B. Carotid artery
 - C. Inferior Vena Cava
 - D. Jugular vein
 - E. Pulmonary vein
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- Q14.** Records of discussions with patients and the treatment provided to patients should be made contemporaneously, signed and dated. When written records are being made these should be legible and ideally written with what?
- A. 2B pencil
 - B. Black washable felt tip pen
 - C. Blue ink in fountain pen
 - D. HB Pencil
 - E. Indelible black ink
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- Q15.** A patient with a mobility impairment is attending for oral hygiene instruction and has a product applied to their teeth so that their carer can see which areas are not being brushed effectively. What product is applied to the patient's teeth in this instance?
- A. Acid etch gel
 - B. Bonding agent
 - C. Disclosing solution
 - D. Fissure sealant
 - E. Topical fluoride varnish
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EXTENDED MATCHING QUESTIONS (EMQs) - INSTRUCTIONS FOR CANDIDATES

Please read the marking instructions on the answer sheet provided.

You will have two answer sheets, one for MCQs and one for EMQs. Marks are not deducted for any incorrect answers.

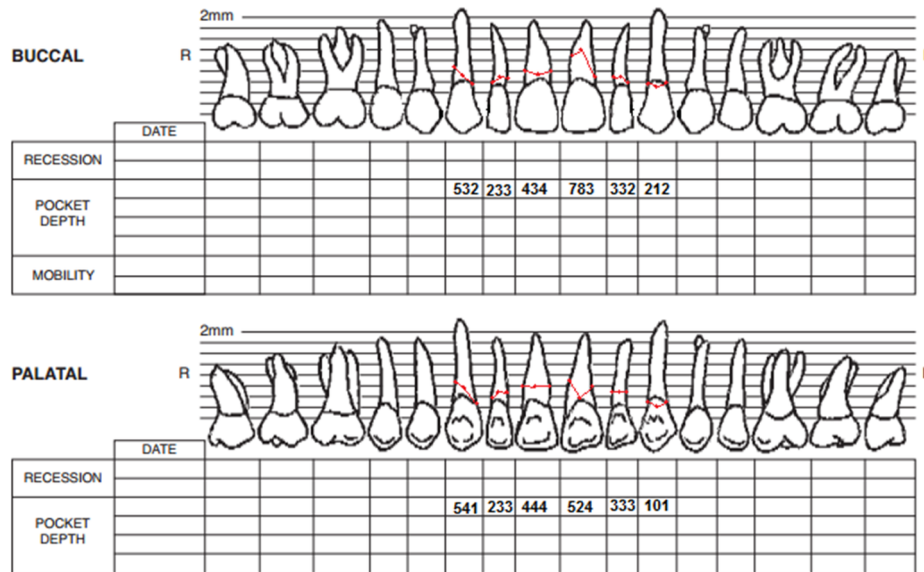
Each question is preceded by a number of options, of which one option is the most appropriate.

You will gain 1 mark for each correct answer.

All answers must be completed on the answer sheets provided and NOT in this question paper. Any answers written in this question paper will NOT be marked.

Periodontal Charting

Lead- in statement: The following questions relate to the periodontal pocket charting below. For each question, select the one most appropriate answer from the option list below. Each option may be used once, more than once, or not at all.



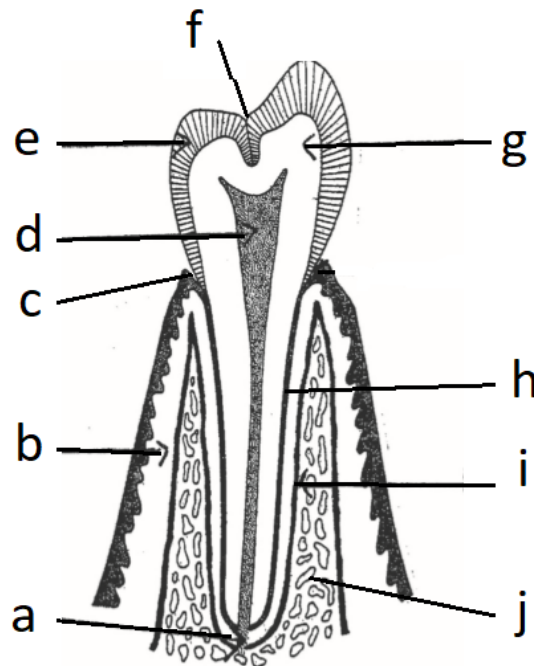
The following options are for Q16 & Q17:

- A. Disto Labial
- B. Disto Palatal
- C. Labial
- D. Lingual
- E. Mesio Labial
- F. Mesio Palatal
- G. Occlusal
- H. Palatal

- Q16.** The patient had a BPE score of 4 in the upper anterior sextant. As a result, a six-point pocket charting was performed with a Williams' probe and the deepest periodontal pocket was found to be 8mm on the upper left permanent central incisor 11. At what point on the 11 tooth was this 8mm pocket located?
- Q17.** The patient had a BPE score of 4 in the upper anterior sextant. As a result, a six-point pocket charting was performed with a Williams' probe. The pocket depth measurements around the tooth 23 gave no cause for concern: no loss of attachment was detected and at one point the periodontal probe measured 0mm. At what point was the 0mm measurement recorded on tooth 23?

The Structure of the Tooth

Lead-in statement: Each of the following about tooth structure relates to the diagram of the tooth below. For each question, select the one most appropriate label on the diagram. Each label may be used once, more than once, or not at all.



The following options are for Q18, Q19, Q20 & Q21:

- A. Label a
- B. Label b
- C. Label c
- D. Label d
- E. Label e
- F. Label f
- G. Label g
- H. Label h
- I. Label i
- J. Label j

Q18. Dental enamel is produced by ameloblast cells. These cells are shed as the tooth erupts through the oral mucosa. This explains why erupted tooth enamel can't be re-grown once it is destroyed by processes such as erosion or dental caries. Intact enamel can be remineralised if intra-oral conditions are appropriate. The surface of enamel is not smooth but contains pits and fissures. These are common stagnation areas where caries can commence. Which label on the diagram above shows the enamel fissure?

Q19. When a tooth receives a pulpectomy and endodontic treatment, the dentist aims to finish the root filling at the apical constriction of the tooth. This is located just above the apical foramen, which is itself near the tooth apex. Which label on the diagram shows the location of the apex?

- Q20.** Dental cementum is produced by cementoblast cells, maintained by cementocytes and resorbed by cementoclasts. It is a hard tissue similar in structure to bone. In health, it is attached to fibres of the periodontal ligament which suspend the tooth from the lamina dura of the surrounding alveolar bone. In a patient with periodontal disease, root surface debridement and root planning may be carried out to smooth the cementum surface and remove toxic products which cause inflammation. This encourages healing by attachment of a long junctional epithelium to the cementum surface. Which letter on the diagram indicates the position of the cementum?
- Q21.** A healthy pulp is required for odontoblast cells to function. Odontoblast cells are located around the periphery of the dental pulp and receive their nutrients from the pulp. They lay down regular secondary dentine throughout the life of the tooth. Irregular or reactive secondary dentine is produced in response to stimuli such as trauma and invading bacteria. Cellular processes known as dentine fibrils extend from the odontoblasts in the pulp and lie inside the dentine tubules. Which letter on the diagram indicates the position of the dental pulp?
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Medical Emergencies

Lead- in statement: The following questions relate to medical emergencies. Dental nurses are expected to be able to assist in their management as part of the dental team. Dental team members are expected to regularly practice simulated emergencies. For each of the following medical emergency scenarios described, please select the most appropriate answer from the option list. Each option may be used once, more than once, or not at all.

The following options are for Q22, Q23, Q24 & Q25:

- A. Adrenal (steroid) crisis
- B. Anaphylaxis
- C. Angina
- D. Asthma attack
- E. Cardiac Arrest
- F. Epileptic seizure (prolonged)
- G. Hyperventilation
- H. Hypoglycaemic coma
- I. Myocardial infarction
- J. Stroke
- K. Vasovagal syncope (faint)

- Q22.** All dental practices are required to stock certain items of medical emergency equipment, as listed by the resuscitation council and the British National Formulary. These items should be regularly checked to ensure that they are in date, present and correct. One such item is a volumatic spacer device. This is designed to help administer an emergency drug if a patient should suffer one of the medical emergencies listed above. During what medical emergency should you prepare to use a volumatic spacer device?
- Q23.** The dentist asks you to fetch the emergency drugs box and prepare the buccal midazolam. This is an emergency drug recommended for use in one of the medical emergencies listed above. For which medical emergency is the use of buccal midazolam recommended?
- Q24.** An elderly patient in the waiting room clutches their left arm and collapses without warning. They aren't breathing and have no circulation or detectable pulse. You are asked to dial 999 whilst CPR is commenced and the receptionist is asked to fetch the Automatic External Defibrillator. What medical emergency is being addressed?
- Q25.** The practice's emergency oxygen would be appropriate for use in all of the medical scenarios listed above apart from one. The one exception where oxygen is contraindicated happens during a panic attack. The patient breathes very rapidly and removes carbon dioxide (CO₂) from their blood plasma. It is the low level of CO₂ and not hypoxia which causes symptoms, including numbness and increasing anxiety. Observable signs of the condition include muscle spasms in the patient's hands. The event is best managed by encouraging the patient to control their own breathing which returns their plasma CO₂ levels to normal. Breathing in and out of their own cupped hands can also help. What situation is being described?
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