# ROYAL CIVIL SERVICE COMMISSION BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2023 EXAMINATION CATEGORY: <u>TECHNICAL</u>

## PAPER III: SUBJECT SPECIALISATION PAPER FOR EMERGENCY MEDICAL RESPONSE

Date	: October 7, 2023
Total Marks	: 100
Writing Time	: 150 minutes (2.5 hours)
<b>Reading Time</b>	: 15 Minutes (prior to examination time)

## **GENERAL INSTRUCTIONS:**

- 1. Write your Registration Number clearly and correctly on the Answer Booklet.
- 2. The first 15 minutes is being provided to check the number of pages of the Question Paper, printing errors, clarify doubts and to read the instructions. You are NOT permitted to write during this time.
- 3. This paper consists of TWO SECTIONS, namely SECTION A & SECTION B:
  - SECTION A has two parts: Part I 30 Multiple Choice Questions Part II - 4 Short Answer Ouestions

All questions under SECTION A are COMPULSORY.

- 4. SECTION B consists of THREE questions. All the questions are COMPULSORY.
- 5. All answers should be written on the Answer Booklet provided to you. Candidates are not allowed to write anything on the question paper. If required, ask for additional Answer Booklet.
- 6. All answers should be written with correct numbering of Section, Part and Question Number in the Answer Booklet provided to you. Note that any answer written without indicating the correct Section, Part and Question Number will NOT be evaluated and no marks will be awarded.
- 7. Begin each Section and Part on a fresh page of the Answer Booklet.
- 8. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
- 9. Use of any other paper including paper for rough work is not permitted.
- 10. You must hand over the Answer Booklet to the Invigilator before leaving the examination hall.
- 11. This paper has 8 printed pages, including this instruction page.

# **GOOD LUCK!**

## SECTION A

## PART I: Multiple Choice Questions [30 marks]

Choose the correct answer and write down the letter of your chosen answer in the Answer Booklet against the question number e.g. 31 (d). Each question carries ONE mark. Any double writing, smudgy answers or writing more than one choice shall not be evaluated.

#### 1. The EMS network begins

- a) with citizen involvement.
- b) by educating dispatchers.
- c) when an injury has occurred.
- d) when paramedics are notified.
- 2. Which of the following statements regarding the EMS system is the MOST correct?
  - a) The paramedic is usually the public's first contact with the EMS system.
  - b) The paramedic is a public servant who often responds to non-emergency calls.
  - c) The public's perception of an emergency is often the same as the paramedic's.
  - d) Dispatch information is usually an accurate depiction of what really happened.
- 3. You should prioritize the needs of your patient based on the
  - a) distance from the scene to the closest medical facility.
  - b) patient's interpretation of the seriousness of the situation.
  - c) patient's age and the results of his or her initial vital signs.
  - d) injury or illness that requires the most urgent treatment.
- 4. Children are at higher risk for serious injury than adults because of
  - a) a shorter body stature.
  - b) inadequate parental guidance.
  - c) a proportionately larger head.
  - d) a lack of personal responsibility.
- 5. The first rule of medical practice is to
  - a) do no harm.
  - b) provide medical care.
  - c) maintain a sympathetic attitude
  - d) recognize critically ill patients.
- 6. You are caring for a 66-year-old man with terminal cancer. He is conscious and alert without evidence of mental incapacitation. You offer him oxygen, but he refuses to accept it, stating "Just let me die with dignity!" You should
  - a) tell him that the oxygen is crucial in preventing him from experiencing cardiac arrest.
  - b) respect the patient's wishes and ask him if he wants to be transported to the hospital.
  - c) contact medical control and request permission to treat without the patient's consent.
  - d) recognize that patients with terminal illnesses do not have decision-making capacity.

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- 7. When preparing an IV administration set, you should NOT
  - a) invert the bag if the drip chamber contains too much fluid.
  - b) run iv fluid through the administration set to flush air out.
  - c) fill the drip chamber of the administration set with iv fluid.
  - d) cleanse the piercing spike before inserting it into the iv bag.
- 8. A 60-year-old woman with acute chest discomfort requires 0.4 mg of sublingual nitroglycerin. Prior to administering the medication, you should
  - a) assess her mucous membranes to ensure they are dry.
  - b) ask her if she wears a trans dermal nitroglycerin patch.
  - c) ensure that her systolic BP is greater than 120 mm Hg.
  - d) determine to which hospital she wishes to be transported.
- 9. Using the DOPE mnemonic, which of the following interventions would you MOST likely have to perform if you suspect O as the cause of acute deterioration in the intubated child?
  - a) Tracheo bronchial suctioning
  - b) Immediate extubation of the child
  - c) Needle decompression of the chest
  - d) Checking the bag-mask device for defects
- 10. A 66-year-old woman is found to be unconscious and apneic. Her carotid pulse is weak and rapid. When ventilating this patient, you should deliver
  - a) each breath over 2 seconds at a rate of 8 to 10 breaths/min.
  - b) one breath over 1 second every 3 to 5 seconds
  - c) one breath over 2 seconds every 5 to 6 seconds.
  - d) each breath over 1 second at a rate of 10 to 12 breaths/min.
- 11. A young woman experienced massive facial trauma after being ejected from her car when it struck a tree. She is semiconscious, has blood draining from her mouth, and has poor respiratory effort. The MOST appropriate initial airway management for this patient involves:
  - a) vigorously suctioning her oropharynx for no longer than 15 seconds and then inserting a multilumen airway device.
  - b) alternating suctioning her oropharynx for 15 seconds and assisting her ventilations for 2 minutes until you can definitively secure her airway.
  - c) suctioning her oropharynx and performing direct laryngoscopy to assess the amount of upper airway damage or swelling that is present.
  - d) providing positive-pressure ventilatory support with a bag-mask device and making preparations to perform an open cricothyrotomy.
- 12. When caring for a patient who is mentally challenged,
  - a) it is highly unlikely that you will obtain a reliable medical history.
  - b) your priority should be to transport the patient to a psychiatric facility.
  - c) you should speak to the patient as though he or she is younger in age.
  - d) you may have to obtain the medical history from a family member.

- 13. Proper documentation of your physical examination of a patient is MOST important because it
  - a) becomes a permanent part of the patient's medical record and may be subjected to legal issues.
  - b) reflects your subjective findings and forms the basis for your working field diagnosis of the patient.
  - c) facilitates the paramedic's definitive diagnosis of the patient, leading to the most appropriate care.
  - d) ensures an accurate historical accounting of the patient's problems prior to entering the hospital.
- 14. Which of the following actions would you likely NOT perform at the scene of a fall before engaging in the care of a conscious patient?
  - a) Gathering dispatch information
  - b) Speaking with immediate family
  - c) Assessing the scene for safety
  - d) Noting the mechanism of injury
- 15. During your initial assessment of a 20-year-old man with blunt chest trauma, you note that he is semiconscious with rapid, shallow breathing. You do not see any obvious bleeding and note that his pulse is rapid and irregular, and his skin is cool and moist. An appropriate action would be to
  - a) quickly logroll the patient and assess his back.
  - b) perform a detailed physical exam while at the scene.
  - c) insert an oral airway and apply supplemental oxygen.
  - d) apply a cardiac monitor to assess for dysrhythmias.
- 16. After gathering information from the patient, scene, and any bystanders, you must next
  - a) formulate a care plan based on the information.
  - b) determine which information is valid and which may be invalid.
  - c) synthesize the information to form a thought process.
  - d) determine the most likely cause of the patient's problem.
- 17. When you introduce yourself to your patient and ask why 1-1-2 was called, the patient looks at you, shakes your hand, and answers your questions appropriately. From these findings, you can gather that the patient
  - a) has a glasgow coma scale score of 15.
  - b) has not experienced a traumatic injury.
  - c) will likely not require medication therapy.
  - d) does not have a life-threatening condition.
- 18. Prior to submitting a patient care report to the receiving hospital, it is MOST important for
  - a) your partner to review the report to ensure accuracy.
  - b) the ems medical director to review the report briefly.
  - c) the paramedic who authored the report to review it carefully.
  - d) the quality assurance team to review the report for accuracy

- 19. A young woman attempted to commit suicide by cutting her wrist. Bright red blood is spurting from the injury site. After applying direct pressure, you should
  - a) apply supplemental oxygen and keep her warm.
  - b) apply a pressure dressing and start a large-bore IV.
  - c) elevate her extremity above the level of the heart.
  - d) locate and apply digital pressure to the brachial artery.
- 20. Primary treatment in the prehospital setting for an abrasion involves
  - a) covering it lightly with a sterile dressing.
  - b) administering a narcotic analgesic.
  - c) applying an antibiotic ointment or cream.
  - d) thoroughly cleaning it to prevent infection.
- 21. You are the first unit to arrive at the scene of a small building collapse. As you exit the ambulance, you can see a man pinned under a large metal beam. You should
  - a) free the patient first and then assess him.
  - b) carefully access the patient and assess him.
  - c) contact medical control for further guidance.
  - d) immediately request a special rescue team.
- 22. You are transporting a conscious but confused 29-year-old man after he was electrocuted. The patient is on high-flow oxygen, has an IV line of normal saline in place, is on a cardiac monitor, and has his spine fully immobilized. During transport, it is especially important for you to
  - a) remain alert for lethal cardiac dysrhythmias and be prepared to defibrillate.
  - b) administer at least 2 liters of normal saline solution to prevent renal failure.
  - c) thoroughly assess and clean the entry and exit wounds to prevent an infection.
  - d) reassess his vital signs every 15 minutes and treat any fractures or dislocations.
- 23. Upon arriving at the scene of a woman with chest pain, you enter the residence and begin to assess the patient. The patient's husband, who is angry because of your response time, is standing in the corner clenching his fists. You should
  - a) tell the man that his behavior will not be tolerated.
  - b) quickly scan the area for the quickest escape route.
  - c) allow the patient to try to calm her husband down.
  - d) return to the ambulance and leave the scene at once.
- 24. Which of the following injuries or conditions should be assigned the HIGHEST triage priority?
  - a) Full-thickness burns
  - b) Respiratory distress
  - c) Cardiopulmonary arrest
  - d) Multiple long bone fractures
- 25. According to the START triage system, a nonbreathing patient should be triaged as immediate
  - a) if he or she is in need of immediate intubation.

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- b) if the airway is completely blocked by swelling.
- c) if a manual airway maneuver restores breathing.
- d) if he or she does not respond to two rescue breaths.
- 26. After a helicopter lands and continues to keep its rotor blades active, you should
  - a) assign a firefighter to post near the tail rotor to keep bystanders away.
  - b) approach the aircraft from the front and keep the pilot in view at all times.
  - c) slowly approach the left side of the aircraft while keeping your head down.
  - d) not approach the aircraft until the pilot or a crew member signals you to do so.
- 27. Which of the following interventions is especially important when caring for a patient with a tracheostomy tube?
  - a) Suctioning
  - b) Mask ventilation
  - c) Hyperventilation
  - d) Head positioning
- 28. You receive a call to a residence for an "unknown injury." Upon arrival at the scene, you are greeted at the door by a well-dressed man, who tells you that his 39-year-old wife fell down the stairs and is in the living room. As you are assessing the patient, you note multiple bruises to the left side of her face and an area of redness to her anterior neck. When her husband leaves the room for a brief period, she states, "Dorji's really a good man, but he does have somewhat of a temper." You should
  - a) apprise her husband of the statement that she made about him.
  - b) not allow her husband to leave the premises until you speak to him.
  - c) continue your assessment as your partner notifies law enforcement.
  - d) summon the husband back into the room to comfort his injured wife.
- 29. You respond to the residence of a 68-year-old man with terminal cancer. As you begin your initial assessment, the patient's wife tells you that he has an out-of-hospital do not resuscitate order, and hands you a document that appears to be valid. The patient, who is clearly emaciated, is conscious but is in severe pain. Your MOST appropriate action should be to
  - a) advise the wife that the do not resuscitate order prohibits you from rendering any prehospital care.
  - b) recall that do not resuscitate orders are invalid in the prehospital setting and be prepared to provide full acls.
  - c) provide supportive care, administer narcotic analgesia as indicated, and transport the patient to the hospital.
  - d) accept the stipulations of the do not resuscitate order, obtain a signed refusal from the wife, and return to service.

30. Which of the following is NOT a component of the APGAR score?

- a) Reflexes
- b) Activity
- c) Pulse rate
- d) Appearance

## PART II – Short Answer Questions [20 marks]

This part has 4 Short Answer Questions. Answer ALL the questions. Each question carries 5 marks. Mark for each sub-question is indicated in the brackets.

- 1. What is Triage? Briefly write about the START Triage. (1+4 marks)
- 2. What is SMRD? What are the procedures and equipment required for SMRD? (1+4 marks)
- 3. What are the basic airway adjuncts? Mention its indication, contraindication and the procedure to insert. (1+4 marks)
- 4. What is CPR? Elaborate how a CPR is performed on a child? (1+4 marks)

## SECTION B: CASE STUDY [50 marks]

# This section consists of THREE questions and all the questions are Compulsory. Mark for each sub-question is indicated in the brackets.

## Question 1

You are dispatched at 4:30 pm to attend a case of 32-year-old woman with POG of 38+3 weeks in labor pain.

You're at the scene with your partner. As you approach near the patient and examine her you find that she is already in the crowing phase.

- a) Based upon the scenario mentioned above, how do you approach the scene? (5 Marks)
- b) Briefly explain on the conduct of patient assessment on this woman. (5 Marks)
- c) How do you manage this patient? (10 marks)

## Question 2

Your unit is dispatched to attend to a motor vehicle collision on a well-traveled road. You are the EMRO in-charge. The dispatch time is 3:30 am and the temperature outside is 4<sup>o</sup>C. The informer has stated that the collision didn't involve any other car.

You are the first emergency unit to reach the scene. You observe that a passenger car had a head on collision with the safety walls near the road. You see a victim entrapped in the car, and there is a strong smell of petrol in the air.

- a) What scene size-up considerations should you bear in mind as you approach the scene? (5 marks)
- b) What actions should you take, based on scene size-up? (15 marks)

# Question 3

A case of a young man who has fallen from the tree has been reported to the emergency unit. Your team has been assigned to attend to this patient at Chaskar Gewog around 11:30 am. You and your team are informed that the victim fell from a height of approximately 10 feet while chopping tree leaves for fodder. The patient is having difficulty breathing and has a deep lacerated wound on his head with a GCS of 14/15.

After you approach the scene and conducted physical examination, the following were your assessment:

- $\checkmark$  Emphysema on the right side of the chest
- ✓ Deformed left foot
- $\checkmark$  Cut on the left side of the head
- $\checkmark$  Pain over the lower back
- ✓ Discolored abdominal region
- ✓ Vitals:
- ✓ BP 80/40 mmhg
- ✓ PR- 140 Beats/minute
- ✓ RR- 36 Breaths/min
- ✓ Spo2 84 % RA
- ✓ Pain Score 8/10

How do you manage this Patient? (10 Marks)

# TASHI DELEK