



2019 NZFBI EXAMINATION

Associate A: On Station

Saturday 7 September
0900 to 1100 hours

EXAMINATION RULES AND INSTRUCTIONS TO CANDIDATES

1. Ten minutes will be allowed prior to the commencement of the examination for candidates to read the question paper, but they are not permitted to commence the examination until instructed.
2. Candidates are prohibited from introducing any books or papers of any kind into the examination room.
3. Candidates are not to communicate with, copy from each other, or communicate with anyone outside the examination room. Cellular phones are not permitted in the examination room.
4. Slide rules and silent non-programmable calculators may be used, subject to the scrutiny and satisfaction of the examination supervisor.
5. All written work must be completed in ink or good ball point pen, with drawings and/or diagrams in pencil. Drawing instruments may be used and are to be supplied by the candidate. Marks may be deducted for untidy work.
6. All answers are to be written in the combined question/answer books which will be handed in at the end of the examination. You can request additional paper from the examination supervisor if required.
7. Candidates should ensure that only their allocated examination number appears in the answer book. Do NOT write your name or brigade in the answer book or use them in the text of any of your answers – if required, use fictitious identification.
8. Candidates accept to abide by the rules of the New Zealand Fire Brigades Institute and accept the examination result as final. No correspondence will be entered into.
9. This examination contains five questions. Candidates are to attempt all questions.
10. Write the candidate number provided to you in the boxes below:

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Question 1: Multiple Choice

20 Marks

Answer all questions. Circle the letter beside the answer you think is correct.

1 mark each

1. What item of equipment should be present when operating a portable pump?
 - a) Foam branch
 - b) Fire extinguisher
 - c) Salvage sheet
 - d) Dividing breeching

2. What is this piece of equipment called?



- a) McLeod Tool
 - b) Pulaski
 - c) Mattock
 - d) Axe

3. What command/order is given to resume any activity that has been stopped?
 - a) Carry on
 - b) As you were
 - c) Get to work
 - d) Fall in

4. When breaking a glass pane during forced entry, where should you strike the glass pane?

- a) The top
 - b) The centre
 - c) The base
 - d) Any of the above
5. On arrival at an incident involving electrical equipment, everyone not directly involved with the rescue should keep back how many metres?
- a) Two
 - b) Four
 - c) Six
 - d) Eight
6. Which word below does not form part of the phonetic alphabet?
- a) Lima
 - b) Papa
 - c) Alpha
 - d) Indigo
7. What is the most likely source of contamination from the equipment listed below at the scene of a fire?
- a) Helmet torches
 - b) Boots and gloves
 - c) Outside scene lighting
 - d) Staging area for spare BA cylinders
8. At what point should the pump operator be relieved of their Entry Control Officer duties?
- a) When there are more than 6 wearers
 - b) When directed by the OIC
 - c) When they are unable to carry out both functions simultaneously
 - d) All of the above
9. When using a PPV fan, when must the ventilation point be created?
- a) Before the PPV fan is directed into the building
 - b) Immediately after the fan is directed into the building
 - c) As soon as possible after the fan is directed into the building
 - d) Once crews have entered the building and are attacking the fire

10. Which way should a suction strainer face in fast flowing water?
- a) Facing up-stream
 - b) Across the stream
 - c) Any direction
 - d) Facing down-stream
11. How much more water will a 70mm hose deliver over a 41mm hose?
- a) Two times
 - b) Three times
 - c) Four times
 - d) Five times

A retardant can be applied to fine fuels (such as grasses and tussock) at what ratio?

- a) 5:1
 - b) 10:1
 - c) 15:1
 - d) 20:1
13. 41 mm non-percolating hose (and extruded hose) is packed in what colour of hose pack?
- a) Blue
 - b) Green
 - c) Red
 - d) Yellow
14. When working with an oxygen cylinder, you must take certain precautions. Which statement below is incorrect?
- a) Do not put any part of your body over the cylinder or valve
 - b) Lay cylinders on their sides when in use
 - c) Open the pressure-reducing valve quickly to ensure oxygen passes through the valve properly
 - d) Do not use oil or grease on or near cylinders, regulators or hoses
15. A voltage in the ground that can appear between two points of contact on the ground is called a:
- a) Touch Voltage
 - b) Step Voltage
 - c) Conductor
 - d) Short Circuit

16. At what pressure does the warning whistle operate on a breathing apparatus set?
- a) 45 Bar
 - b) 50 Bar
 - c) 55 Bar
 - d) 60 Bar
17. When should a hydrant inlet strainer be removed?
- a) When working from hydrants
 - b) When working from an ejector pump in salvage operations i.e. floods
 - c) When working from suction
 - d) It should not be removed
18. When an appliance transmits a K10, the appliance is:
- a) Available at the incident
 - b) Requesting a map reference from FireCom
 - c) Advising that all manpower is fully utilised
 - d) Recommissioning
19. A stop message is used on the radio when:
- a) The fire is contained
 - b) No further resources are required at the scene
 - c) The last appliance is leaving the scene
 - d) The appliance has stopped at a running call incident
20. When completing mop-up work at a vegetation fire, what is the sufficient nozzle pressure?
- a) 350kPa
 - b) 500kPa
 - c) 700kPa
 - d) 850kPa

Question 2: Portable Pumps

20 Marks

2.1 List five safety precautions you should take when establishing a portable pump site. **5 marks**

i. _____

ii. _____

iii. _____

iv. _____

v. _____

2.2 List five items of equipment you need when conducting operations with a portable pump.

5 marks

i. _____

ii. _____

iii. _____

iv. _____

v. _____

2.3 List five things you need to consider to ensure continuity of water supply when you are pumping from open water. **5 marks**

i. _____

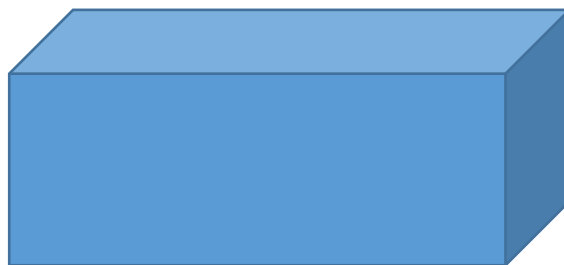
ii. _____

iii. _____

iv. _____

v. _____

2.4 Calculate the volume in litres of rectangular tank measuring 2.0m deep x 5.0m long x 4.0m wide. **2 marks**



2.5 Mud, silt, vegetation, stones, and rubbish in the water supply can block the suction hose strainer and reduce the volume that the portable pump can deliver. Detail three ways of ensuring that the intake of contaminants through the pump can be reduced. **3 marks**

i. _____

ii. _____

iii. _____

Question 3: Equipment

20 Marks

3.1 All new hoses must undergo an acceptance test before going into service. Outline the six criteria required to be recorded once a hose has passed an acceptance test:

3 marks

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____
- vi. _____

3.2 Detail three precautions to take when laying hose inside a burnt area.

3 marks

- i. _____
- ii. _____
- iii. _____

3.3 Name six pieces of equipment that may be used for gaining access to a locked building with a roller door and locked internal door?

3 marks

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____
- vi. _____

3.4 When using an appliance Mobile Status Unit (MSU), priority message indicates that urgency is required, and the appliance is requesting radio channel priority. Detail the four times that a priority message is to be transmitted.

2 marks

- i. _____
- ii. _____
- iii. _____
- iv. _____

3.5 State the K code for the following status:

4 marks

- a. Proceed to, and stand-by at a location _____
- b. Contact communication centre by telephone _____
- c. On RT inside normal turnout area _____
- d. Stop message, false alarm (Malicious) _____
- e. First appliance in attendance – Property fire apparently small _____
- f. Fire suppressed, commencing overhaul _____
- g. Command or control point established _____
- h. Repeat your message _____

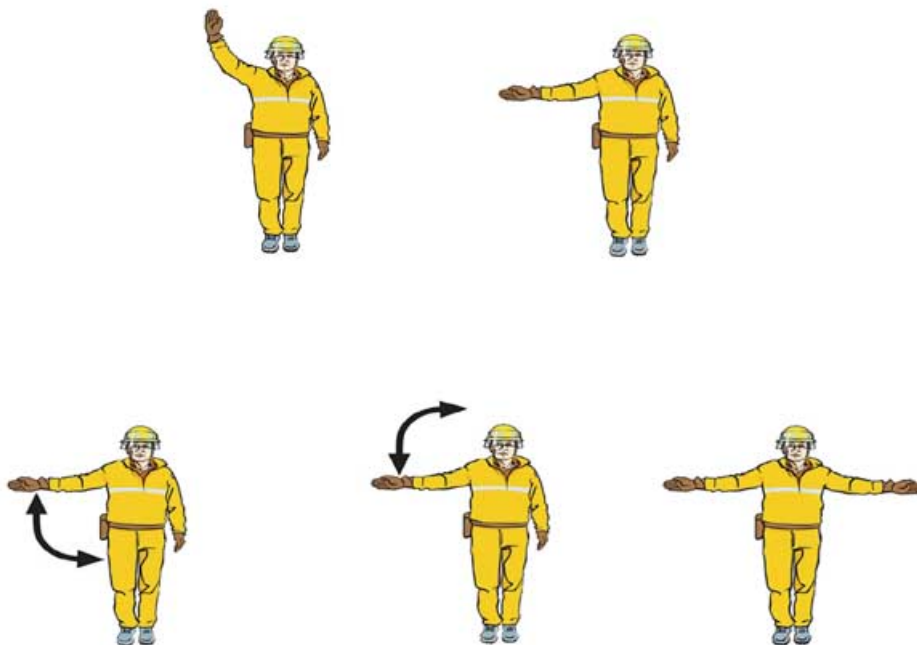
3.6 Match the following knots in the table with their uses below.

2.5 marks

Rolling Hitch	Used to attach a line to an anchor point and can be used to tie off a line with a load on it.
Sheet Bend/ Double Sheet Bend	Used to form a loop in the end of a line to secure a line to an object.
Clove Hitch Pre-formed	Used to join two lines together; however, it should not be used for rescue purposes.
Bowline	Used to secure a line to an object or to another line.
Round Turn & Two Half Hitches	Used when the knot is being tied in the middle of the line and the end of the object is free.

3.7 When communicating to a pump operator, detail the meaning of each of the hand signals in the picture below.

2.5 marks



Question 4: First Aid

20 Marks

- 4.1 To check for a person's level of responsiveness, AVPU is a simple reminder. List the four levels of responsiveness and briefly describe each of them. **4 marks**

i. _____

ii. _____

iii. _____

iv. _____

- 4.2 You and your crew must perform CPR continuously once in attendance at a cardiac arrest. Name four situations when you can stop performing CPR. **4 marks**

i. _____

ii. _____

iii. _____

iv. _____

4.3 Describe the procedure for clearing an airway obstruction (choking) in adults and children.

4 marks

4.4 List four signs of inadequate breathing.

4 marks

i.

ii.

iii.

iv.

4.5 Briefly describe a bag mask resuscitator and name a situation where the bag mask may need to be used.

2 marks

4.6 Detail the procedure for inserting an Oropharyngeal airway (OPA) into a patient's mouth.

2 marks

Question 5: Safety and Wellbeing

20 Marks

- 5.1 Safe and effective firefighting requires crew-based operation under the control of an officer. Name six of the measures to be implemented by an officer at an incident to ensure the safety of the crew at a large-scale incident.

3 marks

v. _____

vi. _____

vii. _____

viii. _____

v. _____

vi. _____

vii. _____

- 5.2 On arrival at an incident involving electrical equipment, what steps should emergency services personnel take to ensure the safety of the crew?

3 marks

3.5 The mnemonic LIVE provides a prompt to ensure safety around electrical network hazards. Outline what each of the letters of LIVE mean.

2 marks

L _____

I _____

V _____

E _____

3.6 If a self-rescue is to be performed by the driver of a vehicle entangled in power wires, what information must be communicated to the person in the vehicle prior to the attempt.

2 marks

3.7.1 Hoses trained on fires (including gas or smoke) under or near an overhead line can prove extremely dangerous. List three operational considerations when operating hoses under or near an overhead line.

3 Marks

3.7.1 List three specific safety observations when firefighting under or near an overhead line.

3 Marks

3.8.1 If an emergency evacuation signal is sounded, all personnel are required to perform certain steps. List the steps to be taken by firefighting crews.

2 Marks

3.8.2 List the steps to be taken by the OIC of the Crews.

2 Marks
