

Sample Practice Assessment

Water Process Technician

Please write clearly in block capitals below	
Company name	
Forename (s)	
Last name (s)	
Date of birth	
Apprentice number	
Apprentice signature	
Date of knowledge test	

Level: 3
Standard: Water Process
Pathway: Water Treatment Technician
Duration: 1 hour 30 minutes

Materials

For this paper you must have:

- Pens
- Scientific calculator (non-programmable)

Instructions

- Use black ink or black ball-point pen
- Fill in the boxes at the top of this page
- Answer **all** questions
- There are questions, possible answers as well as a column for you to mark your answer

- Mark your answer with an against the possible answer you think is correct- if you wish to change your answer please put a line through and re-select with another
- Only one answer per question allowed. Answers which do not follow the rules of selection will be disallowed. This may impact on the grade awarded
- Do all rough work in this answer book

Below is a Sample:

London is the capital of....

Example Question		
London is the capital of...		
Possible answers		Answer
a)	Wales	X
b)	Scotland	
c)	Northern Ireland	
d)	England	X

Information

- There are 20 sample questions
- There will be 50 questions in the live knowledge assessment
- All questions should be attempted

Advice

- You are not permitted to leave the examination room for the first 45 minutes and the last 15 minutes of the examination
- Do not spend too long on one question
- Read all questions thoroughly before starting your examination
- Cheating: you will be asked to leave the examination room and will be classified an automatic fail and referred to your employer

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You can use this page to carry out any work but must not remove from the practice assessment paper.

Do not turn over the page or commence the knowledge test until the invigilator instructs you to

Question 1		
RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences) requires the reporting of dangerous occurrences at work, which one of the following is not reportable as a dangerous occurrence?		
Possible answers		Answer
a)	The collapse or over turning of a crane	
b)	Contact with an overhead power line	
c)	The release or escape of a biological agent likely to cause severe human infection or illness	
d)	Accidental damage to a drain or sewer	

Question 2		
An employee has to carry out a work activity which involves a substance that can be hazardous to health.		
What should they do?		
Possible answers		Answer
a)	Carry on with the work regardless	
b)	Carry out the work, providing they have been suitably trained and have the necessary information from the COSHH assessment	
c)	Carry out the work using his or her own initiative to decide the sensible safety precautions	
d)	Refuse to carry out the work	

Question 3		
Which ONE of the following is the most common cause of workplace injury?		
Possible answers		Answer
a)	Falling from height	
b)	Attacks by animals	
c)	Manual handling injuries	
d)	Electric shocks	

Question 4		
Which regulator do water companies need to inform of how much water they have abstracted from its sources?		
Possible answers		Answer
a)	Environment Agency	
b)	Consumer council for water	
c)	Drinking Water Inspectorate	
d)	OFWAT	

Question 5		
What is the minimum raw water monitoring required for a Water Treatment Works designed to treat water from a borehole?		
Possible answers		Answer
a)	Turbidity; Flow	
b)	Turbidity; pH	
c)	Cryptosporidium; Turbidity;	
d)	Conductivity; pH	

Question 6		
What is the standard Prescribed Concentration or Value (PCV) for aluminium in drinking water?		
Possible answers		Answer
a)	100 ug/l	
b)	200 ug/l	
c)	250 ug/l	
d)	300 ug/l	

Question 7		
What is the correct name for the thick-walled cryptosporidium spore which can resist chlorine disinfection?		
Possible answers		Answer
a)	Zygote	
b)	Ovum	
c)	Oocyst	
d)	Egg Cell	

Question 8		
Which ONE of the following statements is true about chlorine gas?		
Possible answers		Answer
a)	Chlorine gas is heavier than air	
b)	Chlorine gas is lighter than air	
c)	Chlorine gas is safe to breathe	
d)	Chlorine gas is colourless at high concentrations	

Question 9		
<p>"A contact tank has the following measured parameters:</p> <p>Dosed Cl₂ = 1.25 mg/l, Final Cl₂ = 1 mg/l, pH = 7.5, Contact time = 30 minutes, Dosed HOCl = 0.74 mg/l, Final HOCl = 0.63 mg/l.</p> <p>What is the Ct at this time?</p>		
Possible answers		Answer
a)	37.5 mg.mins/l	
b)	30 mg.mins/l	
c)	22.2 mg.mins/l	
d)	18.9 mg.mins/l	

Question 10		
<p>If ammonia is dosed at the end of the disinfection process what is the desired disinfectant produce?</p>		
Possible answers		Answer
a)	Trihalomethane	
b)	Trichloramine	
c)	Chloramine	
d)	Dichloramine	

Question 11		
<p>What is the main purpose of a service reservoir?</p>		
Possible answers		Answer
a)	To meet the minimum storage required by the water supply regulations	
b)	To provide stable and adequate mains pressure within the distribution network, to minimise the risk of mains bursts	
c)	To ensure minimum contact time in the network	
d)	To maintain network chlorine residuals by use of secondary disinfection	

Question 12		
If a screen is bypassed, what impact might this have on the downstream process?		
Possible answers		Answer
a)	Debris will pass into the processes, causing possible treatment issues and increased wear and tear on assets	
b)	Any on site chemical dosing will be reduced as a result of increased flow	
c)	The performance of the downstream assets and treatment process will improve	
d)	There will be increased cryptosporidium loading on the treatment process	

Question 13		
When handling chemical coagulants on site where would you get information on what PPE you are required to wear?		
Possible answers		Answer
a)	Generic task Risk Assessment	
b)	COSHH assessment	
c)	Site Safety Induction	
d)	Internal Permit to Work	

Question 14		
Why are clarification processes used?		
Possible answers		Answer
a)	To optimise pH	
b)	It kills E. coli	
c)	It is effective at killing cryptosporidium	
d)	To reduce solids loading	

Question 15		
Anthracite is often used in rapid gravity filters.		
What is the purpose of this media?		
Possible answers		Answer
a)	To remove fine particles	
b)	To remove large particles	
c)	To remove taste and odour	
d)	To remove pesticides	

Question 16		
What did the Badenoch and Bouchier report recommend that filters should have?		
Possible answers		Answer
a)	Continuous monitoring of individual filters for turbidity	
b)	Level probes	
c)	Particle counters for individual filters	
d)	UV 254 DOC monitors	

Question 17		
What does the abbreviation GAC stand for?		
Possible answers		Answer
a)	Graded activated carbon	
b)	Granular activated carbon	
c)	Granular activated charcoal	
d)	Gradually activated carbon	

Question 18		
What is the main reason sludge cake should be stockpiled in a bunded area?		
Possible answers		Answer
a)	To prevent run off and potential environmental pollution	
b)	To prevent slips, trips and falls within the working area	
c)	To facilitate easier loading for removal from site	
d)	To keep the workplace tidy	

Question 19		
What is the turbidity standard, recommended in the Badenoch Bouchier report, for filter backwash water to be returned to the head of works?		
Possible answers		Answer
a)	1 NTU	
b)	2 NTU	
c)	5 NTU	
d)	10 NTU	

Question 20		
Which ONE of the following would be the first thing you should do if a section of perimeter fencing has been removed or damaged?		
Possible answers		Answer
a)	Temporarily secure the broken or damaged area	
b)	Search the site alone to check for intruders	
c)	Report the next working day	
d)	Report immediately and remain in a safe place	

End of Sample Practice Assessment

Sample Practice Knowledge Assessment

Answer scheme

Question	Answer	Question	Answer
1	D	11	B
2	B	12	A
3	C	13	B
4	A	14	D
5	A	15	B
6	B	16	A
7	C	17	B
8	A	18	A
9	D	19	D
10	C	20	D