	Industrial Radiation Safety Portable Density Moisture Gauges Level 2 User (Open Book)
Minimum pass – 85%	

Reference Documents:

1) TRN0040_V2.0 PDMG L2 Course Notes_14.01.2025
2) Radiation Safety and Protection Plan (RSPP)

Part 1 - Multiple Choice Questions:
Part 2 - Written Answers:
(* all fields are mandatory)

*Candidate Full Name: _____
”As per driver’s licence or identification document used for application”

*Company Name: _____

*Mobile Phone: _____

*Email Address: _____

*Signature: _____

*Date: _____

*Order Number: _____

Assessor: _____

Result: _____

By signing this page, I agree that this exam was conducted under Open Book conditions.
All work completed in this examination is my own

1. Over time, a radioactive source's activity:
    a. Increases via radioactive decay
    b. Decreases via radioactive decay
    c. Stays the same
    d. Increases in size

2. Select the unit that is used to describe equivalent dose:
    a. Rad
    b. Becquerel
    c. Sievert
    d. Gray

3. Choose the SI unit for activity:
    a. Sievert
    b. Becquerel
    c. Coulomb/kilogram
    d. Gray

4. The half-life of a radioactive source can be defined as the time taken for:
    a. All of the atoms to decay
    b. None of the atoms to decay
    c. Half of the atoms to decay
    d. 25% of the atoms to re-activate

5. For a radioactive source activity to be reduced to 25% of original activity, how many half-lives has it experienced?
    a. 1
    b. 2
    c. 4
    d. 8

6. What is the document that you refer to for radiation safety procedures at your practice:
    a. Workplace industrial relations
    b. Radiation Safety and Protection Plan (RSPP)
    c. The Driving Policy
    d. Occupational Health and Safety Plan

7. What is the best shielding for a Cs^{137} source:
    a. paper
    b. plastic
    c. lead or tungsten
    d. water

8. ALARA is:
    a. The name of the person who discovered radioactivity
    b. A test conducted on radiation sources
    c. An internationally adopted principle used to ensure that radiation dose is minimised
    d. A reference document similar to the RSPP

9. ALARA stands for:
    a. As Long As Reasonably Allowed
    b. As Low As Reasonably Accurate
    c. As Long As Readily Available
    d. As Low As Reasonably Achievable

10. Which one of the following radiations pose the greatest external hazard:
    a. Alpha particles
    b. Beta particles
    c. Gamma Rays
    d. All are equally hazardous

11. The annual effective dose limit in 1 year for a member of the public is:
    a. 1 mSv
    b. 5 mSv
    c. 2 mSv
    d. 20 mSv

12. What instrument would you use to detect the presence of gamma rays?
    a. Radiation survey meter (Automess, Rotem, RadEye, etc.)
    b. Parking meter
    c. Personal dosemeter
    d. Metre ruler

13. The main purpose of a personal radiation OSLD/TLD (Film Badge) is:
    a. To measure the accumulated dose received over a period of time.
    b. Warn the wearer of immediate danger.
    c. To measure the distance from radiation.
    d. To prevent water damage.

14. A half-value layer thickness of a shielding material transmits what percentage of the original dose rate:

a. 10 percent
b. 40 percent
c. 50 percent
d. 75 percent

15. The dose rate at 4 metres is 150 $\mu Sv.h^{-1}$. According to the inverse square law, the dose rate at 2 m (moving closer) is:

a. 600 $\mu Sv.h^{-1}$
b. 50 $\mu Sv.h^{-1}$
c. 75 $\mu Sv.h^{-1}$
d. 300 $\mu Sv.h^{-1}$

16. According to the inverse square law, by doubling the distance away from a radioactive source the dose rate is:

a. Doubled
b. Quadrupled
c. Halved
d. Quartered.

17. For which of the following would you invoke the emergency procedure?

a. Fire, Flood or other disaster
b. Theft or vandalism
c. Damage from impact
d. All of the above

18. In the event of an incident, the RSO's job is to report the incident to:

a. The Police
b. The Possession Licensee
c. The Site Safety Department
d. Radiation Health

19. The annual average dose limit for a radiation worker is:

a. 20 mSv
b. 15 mSv
c. 50 mSv
d. 100 mSv

20. A biological effect of ionising radiation is:
    a. Burns
    b. Cold sores
    c. Heart attack
    d. Pimples

END OF PART 1

PART 2 – WRITTEN ANSWERS

Write the answers in the space provided or, if you need more room, use loose sheets and staple them to the back of the exam.

Question 1: What are some obligations under the Radiation Safety Act as a Licenced User

a) _____

b) _____

c) _____

Question 2: What would be the consequences of not adhering to the ALARA principle when working around portable gauges.

_____

Question 3: What are the working rules for Use of a PDMG

a) _____

b) _____

c) _____

d) _____

e) _____

Question 4: What can you do to increase your personal safety while using the PDMG?

a) _____

b) _____

c) _____

Question 5: Who is responsible for administering the company Radiation Safety & Protection Plan.

_____

Question 6: What are the rules for transport of a Portable PDMG

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

Question 7: Explain Where your personal dosemeter should be worn and where it should be stored or kept when not in use.

_____

Question 8: You have been called in to the lab after hours, you can't locate your personal dosimetry badge, is it ok to wear the Control Badge until you can locate your own

_____

Question 9: A PDMG is run over at a mine site. What are your first three actions?

a) _____

b) _____

c) _____

Question 10: You drive off from site and forget that the gauge is sitting on the tailgate of the utility. You don't realise until you hear a thud. Describe in detail how you are going to handle the situation.

a) _____

b) _____

c) _____

d) _____

e) _____

END OF EXAM NO FURTHER QUESTIONS

McKavanagh Engineering Services Pty Ltd
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SELF-PACED LEARNING FEEDBACK FORM

Please take a few moments to provide us with some important feedback about your Radiation Safety Training Course. The information will be used to improve future training courses.

Course Name:

1. Of the following considerations, please select up to three (3) that were most important in your decision to choose self-paced training

a) Cost (training course fees)
b) Accessibility of training materials
c) Flexibility of training (I could choose when I completed the training)
d) Duration of training
e) Other (please specify)_____

2. Please answer the following statements regarding the self-paced course content

a) The written training materials were up to date Y / N
b) The course materials provided were useful to me Y / N
c) The course instructions were easy to follow Y / N
d) The video content provided was valuable in assisting understanding of
e) Course content Y/N

3. Please answer the following questions regarding the ease of use for our self-service portal
f) The online navigation to register and pay for training was easy Y/N
g) The online links were functional and working Y/N
h) The online video audio was clear and able to be heard Y/N
i) The online video picture quality was clear and easy to view Y/N
4. Please provide any written feedback you feel is relevant such that we can continue to improve our training content.

_____
_____
_____
_____
_____
_____

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