	Industrial Radiation Safety Hand-held XRF Level 2 User (Open Book)
Minimum pass – 90%	

Reference Documents:

1) TRN0050_V4.0 HHXRF Training Notes_23.01.2025
2) TRN0051_V2.0 HHXRF Presentation_23.01.2025

Candidate Full Name: _____
”As per identification document used for application”

Company Name: _____

Mobile Phone: _____

Email Address: _____

Signature: _____

Date: _____

Order Number: _____

Assessor (MES Use): _____

Result (MES Use): _____

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

Initial _____

Q1	You must have a licence to use radiation sources in Australia. Which governing body approves this licence in Queensland? a. ARPANSA b. RSPP c. QLD Radiation Health d. Site Safety Superintendent	2 marks
Q2	What are the three steps in obtaining this license? a. _____ b. _____ c. _____	4 marks
Q3	What does ALARA mean: A L A R A	2 marks
Q4	Match the annual effective dose rates: 20 mSv/Yr. _____ a. Annual Equivalent Dose to the Hands and Feet 1 mSv/Yr. _____ b. Occupational Radiation Worker 500 mSv/Yr. _____ c. General Public	4 marks
Q5	A female radiation worker declares her pregnancy. What considerations must be made if the worker continues to work with the HHXRF Units.	6 marks

Initial _____

Q6	Radiation effects above the recommended may be harmful. What effects from acute radiation exposures would be expected for the following: a. 0.05 – 0.2 Sievert _____ b. 0.5 – 1.0 Sievert _____ c. 3.0 – 4.0 Sievert _____ d. 8.0 – 10.0 Sievert _____	6 marks
Q7	What does the Acronym RSPP stand for?	2 marks
Q8	Why is it important to conduct daily visual inspections on HHXRF prior to use?	4 marks
Q9	What is the number 1 rule for Safe Use of a HHXRF Unit?	4 marks
Q10	What are two pre-operational checks for the HHXRF? 1. _____ 2. _____	4 marks
Q11	What are two operational safety checks to be performed? 1. _____ 2. _____	4 marks

Q12	During start up testing of the HHXRF you notice the unit fails a “fresh air shot” Describe what steps you need to take to ensure the safety of yourself and others. 1. _____ 2. _____ 3. _____	6 marks
Q13	What is the purpose of the “proximity switch”?	4 marks
Q14	Is the user permitted to override the proximity switch for any reason? Explain your reason. (Refer to your RSPP and select one only) If Yes: _____ If No: _____	4 marks
Q15	Who is responsible for performing the safety checks and at what intervals? 1. _____ 2. _____	2 marks
Q16	How often does the RSO need to obtain certificates of compliance for the HHXRF? (Circle the correct answer) a. Annually b. 6 Monthly c. Prior to first use and every 3 years thereafter	2 marks

Q17	If your RSPP requires personal dosimetry, you are required to wear your film badge at all times (24/7) for the wearing period? True / False	2 marks
Q18	You must apply for a dangerous goods transport licence to transport the HHXRF on a public road in Queensland True / False	4 marks
Q19	How is the HHXRF to be stored when not in Use? (Refer to your RSPP)	4 marks
Q20	List 2 obligations under the Act as a Licensed User 1. _____ 2. _____	4 marks
Q21	A Radiation Incident is defined as an incident that has caused or has the potential to cause unintended exposure to radiation. Who must you report the radiation incident to? a. The next crew b. Radiation Health c. Mines Inspectorate d. Radiation Safety Officer	2 marks
Q22	In the event of an incident involving a HHXRF where the Xray's have failed to terminate, what is the first step you should take?	2 marks

Q23	List the two reportable incidents for the HHXRF Unit. 1. _____ 2. _____	4 marks
Q24	What is the Qld Radiation Safety Standard that Applies to HHXRF?	2 marks
Q25	List 2 Test requirements for HHXRF Units from the Radiation Safety Standard for radiation sources-industrial, mining, manufacturing, and other practices (2021) Section C.2 that you can confirm during operational checks as part of the pre-start. 1. _____ 2. _____	4 marks
Q26	Using the dose profile on p.15 of your course notes and Image 1 below, what is the equivalent dose in µSv? (Show workings)	4 marks

Image 1 for Questions 26, 27 & 28



Initial _____

Q27	If this method of sampling was performed four (4) times per day and the radiation worker worked five (5) days a week, fifty (50 weeks a year, would they exceed the regulatory limits for extremities? (Show Workings) Yes / No	4 marks
Q28	In reference to image 1, list two (2) work practices that could be implemented in the workplace to keep radiation dose rates as low as reasonably achievable? 1. _____ 2. _____	4 marks

END OF EXAM NO FURTHER QUESTIONS