



PROGRAM : NATIONAL DIPLOMA
ENVIRONMENTAL HEALTH

MODULE : OCCUPATIONAL HEALTH AND SAFETY II

CODE : OHS 21-1

DATE : NOVEMBER 2017 PRAC EXAM

DURATION : 2HOURS

PAGES : 2 PAGES

TOTAL MARKS : 90

EXAMINER : MRS E. MAKANZA

MODERATOR : MR. T. MBONANE

INSTRUCTIONS TO STUDENT

1. ANSWER ALL QUESTIONS
 2. READ YOUR QUESTIONS CAREFULLY. YOU WILL BE PENALIZED IF YOUR ANSWERS ARE NOT PROPERLY STRUCTURED AND NUMBERED.
 3. NO CELLPHONES TO BE USED AS CALCULATORS
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QUESTION 1

1.1. What is the name of the SANS code that guides Occupational Hygienist when conducting illumination surveys. (1)

1.2 List the 13 points that must be included in the illumination survey reports. (13)

[14]

QUESTION 2

2.1. Exploration Geologists have been working in the field for 5 days and some of them are begging to show signs of extreme fatigue. Outline/Give common signs that prove heat stress exposure. (6)

2.3. Man is a warm-blooded animal referred to as homoeothermic; he must maintain his body heat despite the changes in the environment. What are the thermal stresses factors influencing heat loss or gain? (10)

For the following situations, determine whether or not the workers are overexposed. Motivate your answers with reference to the relevant legislation:

2.4. In a bakery, where the air temperature is 25,9°C, the natural wet bulb temperature is 16, 8°C and the globe temperature is 30, 7°C. (5)

2.5. Mine workers in an open cast mine where the air temperature is 34⁰C, the natural wet bulb temperature is 28,6⁰C and the Globe temperature is 23,9⁰C. (5)

2.6. Underground mine workers where the air temperature is 38 ⁰C, the Globe temperature is 40 ⁰C and the natural wet bulb temperature is 30, 8 ⁰C. (5)

2.7. Workers repairing roads in the summer, where the air temperature is 29, 1°C, and the globe temperature is 33, 1°C and the natural wet bulb temperature is 24°C (5)

2.8. Overnight security guard, where the air temperature is 3°C, the globe temperature is 0°C and the natural wet bulb temperature is 2, 1°C. (5)

[41]

QUESTION 3

3.1. How would you recognize and identify a possible cold area (10)

3.2. Describe how different dosimeters work in monitoring personnel in the case of ionizing radiation. (8)

3.3. What is oxygen saturation at sea level, 7000m, 10 000m (3)

3.4. As researcher working with difference machines that emit radiation, please discuss the control measures that you can put in place to protect yourself from radiation (14)

[35]

TOTAL MARKS 90