Unit 7 - Week 2

Assignment 2

The due date for submitting this assignment has passed. Due on 2020-02-12, 23:59 IST.
As per our records you have not submitted this assignment.

1) As per point group symmetry operations, which of the following pairs are **not** equivalent to each other ? *0 points*

- $\bar{3}$ and $(3+\bar{1})$
- $\bar{4}$ and $(4+\bar{1})$
- $\bar{6}$ and $\frac{4}{m}$
- $\bar{2}$ and m

No, the answer is incorrect.
Score: 0
Accepted Answers:
$\bar{4}$ *and* $(4+\bar{1})$

2) Which of the following is equivalent to a mirror plane? *2 points*

- $\bar{4}$
- $\frac{4}{m}$
- $\bar{2}$
- $\bar{3}$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$\bar{2}$

3) Which of the following notation does not represent a hexagonal plane group? *2 points*

- *p3*
- *p4*
- *p6m*
- *p6*

No, the answer is incorrect.
Score: 0
Accepted Answers:
p4

4) Bravais lattice consists of a set of imaginary points? *2 points*

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
True

5) A glide line always generate a centered lattice? *2 points*

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
False

6) Fill in the blanks:

For plane lattices _____ number of Plane point groups.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 10

1 point

7) For plane lattices _____ number Plane plane groups can be possible.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 17

1 point

8) Carefully study the pattern in Fig. 1 and answer the following question. *2 points*

The point group of the motif indicated by the dashed box is _____
(Note that the motif which is generated by using several scalene triangles, is marked using a dashed box)

Figure 1:

- 6
- 6m
- 3
- 4m

No, the answer is incorrect.
Score: 0
Accepted Answers:
6

9) Fill in the blanks:

This pattern(Fig.below) belongs to the _____ plane group

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) p2mm

2 points

10) The point group of the below pattern is *2 points*

- 4
- 4mm
- $\bar{3}$
- 4m

No, the answer is incorrect.
Score: 0
Accepted Answers:
4mm

11) _____ is the symbol for a four-fold rotation with screw axis involving a translation by $\frac{1}{2}$ the lattice vector *2 points*

- 4_2
- 2_4
- $\bar{3}_2$
- 4_1

No, the answer is incorrect.
Score: 0
Accepted Answers:
4_2

12) Wyckoff positions give the position of all atoms inside the unit cell *2 points*

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
True