Question 1

Correct

Mark 0.50 out of 0.50

Flag question

S_{10} has an element of order 12

- a. False
- b. True ✔

The correct answer is: True

Question 2

Incorrect

Mark 0.00 out of 0.50

Flag question

The order of $(1254)(514)$ is 12

- a. False
- b. True ✖

The correct answer is: False

Question 3

Correct

Mark 0.50 out of 0.50

Flag question

$$|A_{10}| = 1024$$

- a. True
- b. False ✔

The correct answer is: False

Question 4

Incorrect

Mark 0.00 out of 0.50

Flag question

$$(Q, +) \cong (Z, +)$$

- a. False
- b. True ✖

The correct answer is: False

Question 5

Correct

Mark 0.50 out of 0.50

Flag question

S_6 has an element of order 12

- a. False ✔
- b. True

The correct answer is: False

Question 6

Incorrect

Mark 0.00 out of 0.50

Flag question

$(Z_4, +_4)$ is isomorphic to a subgroup of permutation of S_3

- a. False ✖
- b. True

The correct answer is: True

Question 7

Correct

Mark 0.50 out of 0.50

Flag question

Any two groups with the same number of elements are isomorphic

- a. False ✔
- b. True

The correct answer is: False

Question 8

Correct

Mark 0.50 out of 0.50

Flag question

Every permutation is a cycle

- a. True
- b. False ✔

The correct answer is: False

Question **9**

Correct

Mark 0.50 out of 0.50

Flag question

$(R,+) \cong (R^+,.)$

- a. True ✔
- b. False

The correct answer is: True

Question **10**

Correct

Mark 0.50 out of 0.50

Flag question

S_3 is cyclic

- a. True
- b. False ✔

The correct answer is: False

Question 11

Correct

Mark 0.50 out of 0.50

Flag question

A_3 is isomorphic to a cyclic subgroup of S_4

a. False

b. True ✔

The correct answer is: True

Question 12

Correct

Mark 0.50 out of 0.50

Flag question

A_3 is cyclic

a. True ✔

b. False

The correct answer is: True

Question 13

Incorrect

Mark 0.00 out of 0.50

Flag question

Any two finite cyclic groups are isomorphic

- a. False
- b. True ✖

The correct answer is: False

Question 14

Correct

Mark 0.50 out of 0.50

Flag question

$$(Z,+) \cong (2Z,+)$$

- a. True ✔
- b. False

The correct answer is: True

Question 15

Incorrect

Mark 0.00 out of 0.50

Flag question

There is a permutation group of order 8 which isomorphic to $U(15)$

- a. True
- b. False ✖

The correct answer is: True

Question 16

Correct

Mark 0.50 out of 0.50

Flag question

A cyclic group can be isomorphic to a group of permutation

- a. True ✔
- b. False

The correct answer is: True

Q2:

Show that Q^+ (The set of positive rational numbers) under multiplication is not isomorphic to Q under addition.